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Report

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Hazard classification and labelling of UVCB hydrocarbon substances in the European Economic Area - 2025

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Hazard classification and labelling of UVCB hydrocarbon substances in the European Economic Area - 2025

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ABSTRACT

This report provides a comprehensive list of Concawe's recommended classifications and labelling for substances within its inventory. It reflects the most recent updates to Concawe dossiers as well as recent changes to the CLP Regulation.

In response to the liquid fuel industry's transition towards sustainable feedstocks, this report covers all substances in the current Concawe's inventory, including renewable deoxygenated diesel, co-processed diesel/gas oil from plant or animal origin, and co-processed naphtha from recycled plastics alongside petroleum-derived hydrocarbon substances. This broadened approach ensures that Concawe continues to support safe use and regulatory compliance for both traditional and emerging low-carbon fuels and feedstocks.

This report is not a revision of the previous Concawe report on recommendations for classification and labelling. Rather, it is a new report whose title has been revised to reflect the inclusion of renewable substances.

KEYWORDS

Hazard, health, environment, physicochemical, flammability, petroleum and UVCB hydrocarbon substances, classification, packaging, labelling, REACH, GHS, CLP.

INTERNET

This report is available as an Adobe pdf file on the Concawe website (www.concawe.eu).

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SUMMARY

This report reflects the dossier updates submitted to ECHA in 2025. In this update, the Classification and Labelling (C&L) recommendations for Concawe's inventory substances were updated in line with the recent CLP requirements.

Throughout the document, references were incorporated to align with several major regulatory and international framework. These include:

- The Commission Delegated Regulation implementing the 23rd ATP to the CLP Regulation, as well as the EU's draft CLP initiative aimed at aligning European requirements with UN GHS revisions 8 through 10 and parts of revision 11.

- Additionally, it reflects updates to the UNECE Model Regulations (revision 24, 2025), along with the latest editions of key international and regional transport agreements and codes—including ADR (2025), ADN (2025), IATA and ICAO (2025), the IMDG Code (2024), and the RID Convention (2025).

To ensure consistency and completeness across the report, these regulatory frameworks are embedded in Chapters 1, 2, and 4, along with the recommended permutations for each substance category.

1. INTRODUCTION

The EU regulation on classification, labelling and packaging of substances and mixtures, known as the 'CLP' Regulation (EC) No 1272/2008, entered into force on 20 January 2009 (EU, 2008). This Regulation has subsequently been subject to several legislative Adaptations to Technical Progress (ATPs) and Corrigenda to Annex VI by ECHA. CLP applies the terminology, evaluation principles and criteria of the United Nations Globally Harmonized System (GHS) of Classification, Labelling and Packaging of Chemicals (UN, 2023). The stated purpose of CLP is to ensure a high level of protection of human health and the environment, as well as the free movement of substances, mixtures and articles.

UN GHS is intended to provide a common basis globally, to define and classify chemicals according to their hazards and to communicate this information via labels and safety data sheets. As such, target audiences include consumers, workers and emergency responders.

In 1992, the United Nations Conference on the Environment and Development (UNCED) established a programme to strengthen national and international efforts related to the environmentally sound management of chemicals. Due to the disparity of existing regional systems, the need for a globally harmonised hazard classification and labelling system for chemicals was identified. The World Summit on Sustainable Development held in 2002 encouraged the implementation of the GHS as soon as possible, with a view to having the system fully operational by 2008. Work to update the 'Globally Harmonized System' continues with the publication of the eleventh revised edition of the UN GHS document, known as the 'purple book', in 2025 (UN, 2025). The 12th ATP of CLP implements the 6th and 7th versions of the GHS in the EU. A draft Delegated Regulation (EU, 2025b) is currently being prepared, aiming to amend the CLP Regulation to bring it in line with GHS revisions 8 to 10, and partially implement GHS revision 11 (aerosols and skin sensitisers (mixtures)). Its adoption is planned for the fourth quarter of 2025.

Although the UN GHS provides a common basis for hazard classification and communication for transport, supply and use, it also includes a "building block" approach. Since it is recognised that UN GHS will not be completely "harmonised" at first, these building blocks will facilitate implementation by individual countries or regions. The UN states that *"… countries are free to determine which of the building blocks will be applied in different parts of their systems. … While the full range is available to everyone…, the full range does not have to be adopted"*. It is intended that the UN GHS document will be updated every two years to reflect the technical changes needed. CLP applies the building block approach in seeking to align EU legislation as far as possible with the UN GHS, whilst maintaining some elements from previous community legislation that are not currently addressed in UN GHS. Also, the EU has already started working on leading the process to the inclusion of the new hazard classes, already adopted at the EU level (EU, 2023a), in UN GHS (UN, 2022).

Manufacturers and importers (or groups of manufacturers and importers) who place hazardous substances on the market, will also have to notify ECHA of certain information within one month of placing on the market, in particular the substance identity and the classification and labelling of each hazardous substance, unless this information has already been submitted as part of a registration dossier under REACH (EU No. 1907/2006). ECHA will then include the notified information in the C&L Inventory.

Guidance on the application of CLP in the context of REACH has been developed by ECHA, and its updated version (ECHA, 2024) was published on ECHA's website in November 2024, which includes the new hazard classes.

The purpose of this report is to provide guidance on the classification and labelling of substances produced by the EU refineries and placed on the market, according to the requirements of CLP.

In response to the liquid fuel industry's transition towards sustainable feedstocks, Concawe is expanding its substance coverage beyond petroleum-derived hydrocarbons to include renewable and co-processed substances. Therefore, this report covers all substances in the current inventory including, renewable deoxygenated diesel (RenewDD), co-processed diesel/gas oil from plant or animal origin, and co-processed naphtha from recycled plastics alongside petroleum-derived hydrocarbon substances. Even though these are not petroleum substances, they share some similarities on the chemical understanding of UVCB substances, as well as several identified uses along the supply chain. Given this synergy, these substances were allocated within Concawe's portfolio. This broadened approach ensures that Concawe continues to support safe use and regulatory compliance for both traditional and emerging low-carbon fuels and feedstocks.

Concawe has been providing support on the classification and labelling of petroleum substances since 1995 notably through the various editions of the report *"Hazard classification and labelling of petroleum substances in the European Economic Area"*. This report has traditionally been updated on a yearly basis (Concawe, 2024). However, the present edition differs in several sections from previous versions, not only in the content but also on the structure; which has prompted a rebranding of the report as *"Hazard classification and labelling of UVCB hydrocarbon substances in the European Economic Area"*. The objective of this report is to provide support on the classification and labelling of these complex UVCB substances.

The decision to reduce the size of this report comparted to the Concawe Report 15/24 by removing several chapters and rewriting the structure of the report reflects a strategic response to evolving industry needs and user feedback. Several chapters were removed to eliminate redundancies and academic-level toxicology background to support the substances' classification and labelling. The new report provides a clearer, more focused and user-friendly access to the information.

In addition, this new report is aligned with the platform used for dossier updates, which also occurs on a yearly basis. Accordingly, the report provides a clear overview of all permutations by substance category, while any justification for the classification and labelling under CLP can be found in ECHA Chem for each substance listed in **Appendix 1**.

This report also includes information requirements regarding transport regulations that are also triggered by a change in the classification and labelling under CLP. It is noteworthy to mention that the provisions of CLP also apply to classification, labelling and packaging of mixtures that are placed on the market. Detailed guidance regarding mixtures is not, however, within the scope of this report as duly described and maintained in the CLP Regulation itself.

As the regulatory landscape continues to evolve, the need for clear, consistent and up-to-date guidance on the classification and labelling of UVCB hydrocarbon substances remains essential for ensuring compliance and safeguarding health, environmental protection and market continuity. Increasing diversity of refinery and low-carbon feedstocks, this report provides a coherent and practical resource for industry stakeholders; reinforcing Concawe's commitment to supporting the safe and responsible management of hydrocarbon substances in the European Economic Area.

2. SCOPE OF THIS REPORT

2.1. REGULATORY LANDSCAPE

This report contains an assessment of the hazardous properties of UVCB hydrocarbon substances based on their REACH registration dossiers or C&L notifications (art. 40 CLP) with the criteria of the CLP Regulation (EC) No 1272/2008 up to and including the 18th ATP (EU, 2022) to CLP. The 18th ATP upgrades the harmonised classification of cumene as Carcinogenic 1B, by December 1st, 2023. The impact on the Concawe naphtha and kerosine dossiers has been assessed, and the Concawe classification recommendations are published in the current version of the report as the revised dossiers have been released.

In 2023, the Delegated Regulation (EU) 2023/707 amending CLP Regulation was adopted to set out new hazard classes and criteria for the classification, labelling and packaging of substances and mixtures (EU, 2023a). This EU legislation is binding on manufacturers, importers, downstream users and distributors placing substances on the European Union market and is to be referred to harmonised classification and labelling.

Also in 2023, the 19th ATP and 20th ATP to the CLP Regulation were published as Commission Delegated Regulations: Delegated Regulations (EU) 2023/1434 (EU, 2023b) and (EU) 2023/1435 (EU, 2023c), respectively. With these two acts, new notes to Part 1, section 1.1.3 of Annex VI were added, and some entries to this Annex were modified.

In 2024, two other Delegated Regulations (EU) 2024/197 (21st ATP) (EU, 2024a) and (EU) 2024/2564 (22nd ATP) (EU, 2024b) amending the CLP Regulation were adopted. The first introduces a new list of harmonised substance classifications, which became legally enforced on 1 September 2025. The latter introduces 27 new entries, 16 amended entries and 7 removed entries to Part 3, Table 3 of Annex VI to the CLP Regulation. It will apply from 1 May 2026.

In 2025, the European Commission adopted the 23rd ATP to the CLP Regulation through the Delegated Regulation (EU) 2025/1222 (EU, 2025a). With this latest ATP, more than 30 substances or groups of substances are added to Annex VI of the CLP Regulation with new or amended EU-harmonised classification and labelling. It entered into force on 10 July 2025 and will become mandatory from 1 February 2027.

Many substances under the scope of this report may also be covered by Dangerous Goods Transportation Regulations.

The foundation of dangerous goods transport regulations is the UN Recommendations on the Transport of Dangerous Goods - Model Regulations, developed by the United Nations Economic and Social Council's Committee of Experts on the Transport of Dangerous Goods (UNECE). These recommendations are not legally binding but serve as the basis for national and international transport regulations worldwide. The latest edition (Model Regulations, Rev. 24, 2025) provides harmonised classification criteria, packaging requirements, marking, labelling, and documentation standards for all transport modes.

The UN Model Regulations (UN MR) establish nine hazard classes for dangerous goods classification and assign UN numbers to more than 3000 commonly transported dangerous substances. These regulations are updated biennially to incorporate technical and scientific progress.

These non-binding UN Model Regulations are, in turn, implemented through specific agreements for each mode of transport, as explained below.

The ADR (Agreement concerning the International Carriage of Dangerous Goods by Road) was adopted in Geneva in 1957 and entered into force in 1968. It is also updated biennially. The ADR 2025 edition is effective from 1 January 2025 (ADR, 2025). The ADR applies to international road transport between EU and EEA member states, as well as other contracting countries. As of 2024, 53 states are party to the ADR regulations.

The transport of dangerous goods by rail is governed by the RID (Regulation concerning the International Carriage of Dangerous Goods by Rail). RID forms Appendix C to the Convention concerning International Carriage by Rail (COTIF) and applies to international traffic between RID Contracting States. The regulation includes detailed provisions for classification, packaging, vehicle construction, and operational procedures specific to rail transport. RID is also updated every two years. Its last revised edition (RID, 2025) is effective from 1 January 2025.

IMDG Code (International Maritime Dangerous Goods Code) is the mandatory international standard for shipping dangerous goods by sea. Developed by the International Maritime Organization (IMO), the IMDG Code became mandatory under SOLAS in 2004. The code provides detailed requirements for packing, container traffic, storage, and segregation of incompatible substances. Updated biennially, its last edition was in 2024 (IMDG, 2024) and will be mandatory from 1 January 2026.

Air transport of dangerous goods is governed by two complementary frameworks: the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284). This document contains detailed instructions necessary for safe international air transport. The 2025-2026 edition is effective from January 1, 2025 (ICAO, 2025). The IATA Dangerous Goods Regulations (DGR) are standards that supplement ICAO Technical Instructions and are used by airlines worldwide. The DGR is published annually and contains practical guidance for classification, marking, packing, labelling, and documentation (IATA DGR, 2025).

Finally, the ADN, the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways, regulates the transport of dangerous goods by inland waterways. This agreement is updated biennially, and the current version is applicable as of 1 January 2025 (ADN, 2025).

This report has been developed as industry guidance for the classification, labelling and packaging of UVCB hydrocarbon substances under CLP, which introduces the GHS into the European legislative framework.

This report outlines the objectives and principles of CLP and the classification and labelling requirements that it introduces; its entry and phased implementation into EU legislation; specific issues that apply to UVCB hydrocarbon substances; and Concawe recommendations for classification, labelling, and packaging of UVCB hydrocarbon substances.

The classification recommendations have been updated from the previous Concawe guidance to reflect new information in their registration dossiers, changes in classification criteria, and to accommodate REACH categories of UVCB hydrocarbon substances (EU, 2006).

These recommendations apply to UVCB hydrocarbon substances produced in the refinery, but **do not** cover formulated UVCB hydrocarbon substance products placed on the market, which are considered mixtures. A Concawe guidance on safety data sheets (Concawe, 2022) is published on the Concawe website (https://www.concawe.eu/publications/concawe-reports/).

It is important to note that for each category, the most severe hazard classification and labelling recommendation is presented as the default recommendation in the body of this report. However, based on the application of regulatory or oil industry notes, concentration limits and physicochemical properties (e.g., flashpoint, viscosity), several classification and labelling permutations may be possible within a category. In those cases where EU harmonised classifications for certain endpoints exist, the EU harmonised classifications are supplemented with self-classifications for all other endpoints (see **Appendix 3** as required by the CLP regulation).

2.2. CATEGORIES AND STANDALONE SUBSTANCES IN THE SCOPE

2.2.1. Special considerations for Concawe UVCB hydrocarbon substances

UVCB hydrocarbon substances are complex combinations of individual hydrocarbons, which present a number of challenges when applying the methods and legislative criteria developed for the hazard classification of single chemical substances. The EU refiners have developed approaches and methodologies to characterise the hazard potential of their substances. These are described below, along with other important considerations from CLP relating to the petroleum industry.

2.2.2. Grouping/category approach

Refiners take feedstocks from many sources to process into valuable products. Historically, these feedstocks have been crude oil and natural gas condensates, but increasingly include alternative sources, such as fatty acid-based oils and fats, waste or byproduct bio-oils, the products of pyrolysis of biomass and waste plastics, and chemical feedstocks such as methanol.

In refining operations, feedstocks are subject to fractionation, conversion and treating processes that yield hydrocarbon substances. These hydrocarbon substances are complex combinations of hydrocarbons consisting predominantly of saturated, olefinic and aromatic hydrocarbons, but may also contain small amounts of nitrogen, oxygen and sulphur compounds. Hydrocarbon substances are used in a variety of applications, with the major proportion being used in the production of hydrocarbon transport fuels.

Due to their method of production and complex composition, it is not possible to characterise hydrocarbon substances in terms of their exact chemical composition, molecular formula or structure. They are grouped according to the process by which they are being manufactured and basic physicochemical properties. Similar conversion and/or separation processes will result in hydrocarbon substances of broadly similar composition. The resulting groups of hydrocarbon substances have been used by the European Commission for the purposes of compiling Annex 1 to the Existing Substances Regulation (published in the Official Journal L84 on 5 April 1993), Annex XVII of REACH and Annex VI of CLP. The groups have also been used during discussions on EU harmonised classification and labelling, and for some endpoints (particularly carcinogenicity), harmonised ‘group’ classifications have been applied to individual hydrocarbon substances. In the USA, hydrocarbon substances have also been grouped in categories for the purposes of the High Production Volume (HPV) Chemicals programme. The approach is broadly similar to that used in Europe and has been accepted by the US EPA.

Under REACH, it is possible to group together into the same category substances whose physicochemical, toxicological and ecotoxicological properties are likely to be similar or follow a regular pattern as a result of structural similarity.

The similarities may be based on any of the following:

- Common functional group(s) (e.g., aldehyde, epoxide, ester, specific metal ion, etc.);
- Common constituents or chemical classes, similar carbon chain-length (e.g., for UVCBs);
- Common precursors and/or the likelihood of common breakdown products through physical and biological processes, which result in structurally similar chemicals (i.e. similarity through (bio)transformation);
- Constant pattern in the changing of the potency of the properties across the category (e.g., a category with increasing chain-length), often observed in physicochemical properties such as boiling point range and/or biological properties.

For UVCB substances, structural similarity must be established based on similarities in the structure of the constituents, together with the concentration of these constituents and the variability in the concentration of these constituents. However, "UVCBs" are often substances that cannot be sufficiently identified by the identification parameters in Annex VI, Section 2 to the REACH Regulation. UVCBs often cannot be sufficiently identified by their chemical composition, because the number of constituents is relatively large and/or the composition is, to a significant part, unknown and/or the variability of composition is relatively large or poorly predictable. On the other hand, there are UVCBs which are quite well characterised in terms of their composition. This adds further complexity to the category approach.

Furthermore, for a category approach, whether quantitative variations in the properties among the category members are observed or not must be taken into account as well.

However, structural similarity alone is not sufficient to justify the possibility of predicting properties of the target substance by read-across. A read-across hypothesis needs to be provided. This hypothesis establishes why a prediction for a toxicological, ecotoxicological or environmental fate properties is possible and should be based on recognition of the structural aspects the chemical structures have in common and the differences between the structures of the source and target substances.

Once the category/grouping of substances is established, the most appropriate "scenario" (used as the basis for assessment) needs to be selected to address the appropriate scientific aspects of the case. The scenarios are developed for evaluating read-across prediction of properties and they may differ as they reflect different types of read-across approaches. Each scenario comprises a series of dedicated assessment elements (AEs) which represent crucial scientific aspects of the individual scenarios to be addressed during the assessment. A total of six scenarios is described in the ECHA Guidance on 'Read-Across Assessment Framework (RAAF)' (ECHA, 2017).

In this report, the category approach has been applied to physical, toxicological and ecotoxicological endpoints for the purposes of hazard classification. To take account of the variable composition of UVCB hydrocarbon substances, hazard properties of the category are determined, and a precautionary approach is used to assign the most severe potential hazard classification appropriate for the category, unless specific derogation conditions (designated by Notes or classification criteria) are met.

The following categories and standalone substances are covered in this report. Full names and the acronyms ('short names') used in the REACH registration dossiers are provided.

Note that it is not always possible to assign a substance to a certain category. As explained above, UVCBs are grouped into categories when they share sufficient structural similarity,

compositional consistency, and manufacturing processes that allow for scientifically justified read-across approaches in regulatory assessment. On the other hand, some UVCBs remain standalone substances when they possess unique compositional profiles, extremely high or unpredictable variability, insufficient characterisation data, or derive from unique source materials that cannot be meaningfully compared to other substances.

Sulfur's standalone status is not due to UVCB complexity but rather because it is a fundamental chemical element that doesn't share sufficient structural similarity with other substances to warrant grouping. Unlike petroleum substances or complex mixtures that can be grouped based on manufacturing processes or compositional ranges, elemental sulfur is unique in its chemical identity.

The regulatory framework distinguishes between well-defined substances (like sulfur) and UVCBs based on compositional predictability. Well-defined substances have clear qualitative and quantitative compositions, while UVCBs have variable and relatively unpredictable compositions. Sulfur falls clearly into the well-defined category, making UVCB grouping strategies irrelevant to its regulatory treatment.

The following categories are not covered herein: lubricant greases; used oils; re-refined oils; reclaim petroleum substances, other petroleum substances, synthetic hydrocarbons and hydrocarbon solvents[1]. Manufacturers of these substances need to classify their materials according to legislative requirements.

[1] This report addresses the classification and labelling of groups of UVCB substances which are the primary products of petroleum refining. It should be recognized that some of these groups contain UVCB substances which may also be identified as hydrocarbon solvents. Hydrocarbon solvents are derived, among others, from refinery streams by further refining e.g. redistillation, hydrogenation, and extraction. As a result, the composition of hydrocarbon solvents may differ significantly from refinery streams. The classification and labelling of hydrocarbon solvents are not considered further in this report.

Full name	Short name	Dossier Version
Low Boiling Point Naphthas (Gasolines)	Naphtha	2025_2
Kerosines	Kerosine	2025_1
Straight-run Gas Oils	SRGO	2025_4
Cracked Gas Oils	CrackedGO	2025_1
Vacuum Gas Oils, Hydrocracked Gas Oils & Distillate Fuels	VHGO	2025_3
Other Gas Oils	OtherGO	2025_4
Heavy Fuel Oil Components	HFO	2025_1
Unrefined / Acid Treated Oils	UATO	2025_1
Highly Refined Base Oils	HRBO	2025_1
Lubricant Base Oils	LBO	2025_3
Untreated Distillate Aromatic Extracts	UDAE	2025_1
Treated Distillate Aromatic Extracts	TDAE	2025_1
Residual Aromatic Extracts	RAE	2025_1
Slack Waxes	Slackwax	2025_1
Paraffin and Hydrocarbon Waxes	Paraffinwax	2025_1
Foots Oils	Footsoil	2025_1
Petrolatums	Petrolatum	2025_1
Bitumens	Bitumen	2025_2
Oxidized Asphalt (standalone)	OxiAsph	2025_1
Sulfur (standalone)	Sulfur	2025_1
Renewable hydrocarbon (deoxygenate diesel type fraction) (standalone)	RenewDD	2025_1
Solvent naphtha (standalone)	Solvent naphtha	2025_1
Co-processed gas oil from plant/animal origin (standalone)	CPGOAV	2025_1
Co-processed (thermal cracking) gas oil from waste plastics (standalone)	CPGOPW	2025_2
Co-processed diesel/gas oil from thermally cracked plastics (standalone)	CPGOTP	2025_1
Co-processed (hydrotreated) naphtha from plant/animal origin (standalone)	CPNAV	2025_1
Co-processed naphtha from thermally cracked plastics (standalone)	CPNTP	2025_1

3. GLOSSARY

ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterway
ATPs	Adaptations to Technical Progress
C+L	Classification and Labelling
CLP	Classification, Labelling and Packaging
DMSO	Dimethyl sulfoxide
EC	European Commission
ECHA	European Chemicals Agency
EL	Effect Level
EUH	Supplemental hazard statements
GLP	Good Laboratory Practice
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ILO	International Labour Organization
IMDG	International Maritime Dangerous Goods
IUCLID	International Uniform Chemical Information Database
LC	Lethal Concentration
LD	Lethal Dose
LL	Loading Level
LOAEL	Lowest Observed Adverse Effect Level
LOEL	Lowest Observed Effect Level
M factor	Multiplying factor
MI	Mutagenicity Index

MLA	Mouse Lymphoma Assays
NOAEL	No Observed Adverse Effect Level
NOEL	No Observed Effect Level
NOELR	No Observed Effect Loading Rate
OECD	Organization for Economic Cooperation and Development
OIN	Oil Industry Note
PAC	Polycyclic Aromatic Compounds
PAHs	Polycyclic Aromatic Hydrocarbons
QSARs	Quantitative Structure Activity Relationships
RE	Repeated Exposure
REACH	Registration, Evaluation and Authorisation of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
SE	Single Exposure
SIEF	Substance Information Exchange Fora
STOT	Specific Target Organ Toxicity
UNCED	United Nations Conference on the Environment and Development
UNECE	United Nations Economic Commission for Europe
UN GHS	United Nations Globally Harmonised System
UNSCEGHS	United Nations Sub-Committee of Experts on the Global Harmonized System
UNSCETDG	United Nations Sub-Committee of Experts on the Transport of Dangerous Goods
UVCB substances	Substances of Unknown or Variable composition, Complex reaction products or Biological materials

4. REFERENCES

ADN (2025) European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. New York and Geneva: United Nations.

ADR (2025) Agreement concerning the International Carriage of Dangerous Goods by Road, United Nations, Geneva, 2024 (https://unece.org/adr-2025-files).

Concawe (2022) Guidance on the compilation of Safety Data Sheets for Petroleum Products. Report no. 9/22. Brussels: Concawe.

Concawe (2024) Hazard classification and labelling of petroleum substances in the European Economic Area – 2024. Report No. 15/24. Brussels: Concawe.

ECHA (2017) Guidance on Read-Across Assessment Framework (RAAF) Version 1, March 2017.

ECHA (2024) Guidance on the Application of the CLP Criteria. Guidance Series Overview (Incl. notes on usage), Version 1.0, November 2024. Part 1: General Principles for Classification and Labelling, Version 5.0, November 2024. Part 2: Physical Hazards, Version 4.0, November 2024. Part 3: Health Hazards, Version 5.0, November 2024. Part 4: Environmental hazards and Part 5: Additional Hazards, Version 4.0, November 2024.

EU (2006) Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. Official Journal of the European Union No. L396, 30.12.2006, as corrected by Official Journal of the European Union No. L136, 29.05.2007 and as further amended.

EU (2008) Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006. Official Journal of the European Union No. L353, 31.12.2008 (Initial CLP). The further amendments described below:

EU (2022) Commission Delegated Regulation (EU) 2022/692 of 16 February 2022 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures; Official Journal of the European Union No. L 129, 3.5.2022 (18th ATP to CLP).

EU (2023a) Commission Delegated Regulation (EU) 2023/707 of 19 December 2022 amending Regulation (EC) No 1272/2008 as regards hazard classes and criteria for the classification, labelling and packaging of substances and mixtures Official Journal of the European Union No. L 93, 31.3.2023.

EU (2023b) Commission Delegated Regulation (EU) 2023/1434 of 25 April 2023 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures as regards the addition of notes to Part 1, section 1.1.3, of Annex VI; Official Journal of the European Union No. L 176, 11.07.2023 (19th ATP to CLP).

EU (2023c) Commission Delegated Regulation (EU) 2023/1435 of 2 May 2023 amending Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures as regards the modification of entries in Part 3 of Annex VI for 2-ethylhexanoic acid and its salts, boric acid, diboron trioxide, tetraboron disodium heptaoxide hydrate, disodium tetraborate anhydrous, orthoboric acid sodium salt, disodium tetraborate decahydrate, and disodium tetraborate pentahydrate; Official Journal of the European Union No. L 176/6, 11.07.2023 (20th ATP to CLP).

EU (2024a) Commission Delegated Regulation (EU) 2024/197 of 19 October 2023 amending Regulation (EC) No 1272/2008 as regards the harmonised classification and labelling of certain substances; Official Journal of the European Union No. L 2024/197, 05.01.2024 (21st ATP to CLP).

EU (2024b) Commission Delegated Regulation (EU) 2024/2564 of 19 June 2024 amending Regulation (EC) No 1272/2008 as regards the harmonised classification and labelling of certain substances; Official Journal of the European Union No. L 2024/2564, 30.09.2024 (22nd ATP to CLP).

EU (2025a) Commission Delegated Regulation (EU) 2025/1222 of 2 April 2025 amending Regulation (EC) No 1272/2008 of the European Parliament and of the Council as regards the harmonised classification and labelling of certain substances; Official Journal of the European Union No. L 2025/1222, 20.06.2025 (23rd ATP to CLP).

EU (2025b) EU draft CLP Initiative to amend the CLP Regulation to bring it in line with GHS revisions 8 to 10, and partially implements GHS revision 11.

IATA DGR (2025) Dangerous Goods Regulations (DGR), Edition 66, IATA, 2025.

ICAO (2025) Technical Instructions for The Safe Transport of Dangerous Goods by Air (Doc 9284), ICAO, 2025.

IMDG (2024) International Maritime Dangerous Goods Code, 2024 Edition (inc. Amendment 42-24), IMO, 2024.

UN (2022) Proposal for new work on unaddressed hazard classes in the programme of work for the biennium 2023-2024. Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals. Geneva. 06.12.2022.

UN (2023) Globally harmonized system of classification and labelling of chemicals (GHS). Tenth revised edition, 2023. New York and Geneva: United Nations.

UN (2025) Globally harmonized system of classification and labelling of chemicals (GHS). Eleventh revised edition, 2025. Geneva: United Nations.

UN MR (2025) Recommendations on the Transport of Dangerous Goods. Model Regulations. Twenty-fourth revised edition. Geneva: United Nations.

RID (2025) Convention concerning International Carriage by Rail (COTIF), Appendix C – Regulation concerning the International Carriage of Dangerous Goods by Rail (RID), OTIF.

APPENDIX 1: LISTING OF UVCB HYDROCARBON SUBSTANCES

The tables below list only those substances with active registrations at the time of issuing this report, with the following exception:

- **Crude Oils** are exempt from registration under REACH, but still subject to notification under CLP. As this is not a registered substance, it is included in **Appendix 4** of this report.

CRUDE OILS		
EC #	**CAS #**	**EC name**
232-298-5	8002-05-9	Petroleum

LOW BOILING POINT NAPHTHAS (GASOLINES)		
EC #	**CAS #**	**EC name**
232-349-1	8006-61-9	Gasoline, natural
265-041-0	64741-41-9	Naphtha (petroleum), heavy straight-run
265-042-6	64741-42-0	Naphtha (petroleum), full-range straight-run
265-046-8	64741-46-4	Naphtha (petroleum), light straight-run
265-055-7	64741-54-4	Naphtha (petroleum), heavy catalytic cracked
265-056-2	64741-55-5	Naphtha (petroleum), light catalytic cracked
265-065-1	64741-63-5	Naphtha (petroleum), light catalytic reformed
265-066-7	64741-64-6	Naphtha (petroleum), full-range alkylate
265-068-8	64741-66-8	Naphtha (petroleum), light alkylate
265-070-9	64741-68-0	Naphtha (petroleum), heavy catalytic reformed
265-071-4	64741-69-1	Naphtha (petroleum), light hydrocracked
265-073-5	64741-70-4	Naphtha (petroleum), isomerization
265-075-6	64741-74-8	Naphtha (petroleum), light thermal cracked
265-079-8	64741-78-2	Naphtha (petroleum), heavy hydrocracked
265-085-0	64741-83-9	Naphtha (petroleum), heavy thermal cracked
265-086-6	64741-84-0	Naphtha (petroleum), solvent-refined light
265-089-2	64741-87-3	Naphtha (petroleum), sweetened
265-150-3	64742-48-9	Naphtha (petroleum), hydrotreated heavy
265-151-9	64742-49-0	Naphtha (petroleum), hydrotreated light
265-178-6	64742-73-0	Naphtha (petroleum), hydrodesulfurized light
265-185-4	64742-82-1	Naphtha (petroleum), hydrodesulfurized heavy
265-192-2	64742-89-8	Solvent naphtha (petroleum), light aliph.
265-199-0	64742-95-6	Solvent naphtha (petroleum), light arom.
270-660-4	68475-79-6	Distillates (petroleum), catalytic reformed depentanizer
270-686-6	68476-46-0	Hydrocarbons, C3-11, catalytic cracker distillates
270-690-8	68476-50-6	Hydrocarbons, C≥5, C5-6-rich
270-695-5	68476-55-1	Hydrocarbons, C5-rich
270-993-5	68513-03-1	Naphtha (petroleum), light catalytic reformed, arom.-free
271-267-0	68527-27-5	Naphtha (petroleum), full-range alkylate, butane-contg.
271-635-0	68603-08-7	Naphtha (petroleum), arom
271-727-0	68606-11-1	Gasoline, straight-run, topping-plant
272-186-3	68783-12-0	Naphtha (petroleum), unsweetened
272-895-8	68919-37-9	Naphtha (petroleum), full-range reformed
272-931-2	68921-08-4	Distillates (petroleum), light straight-run gasoline fractionation stabilizer overheads
273-271-8	68955-35-1	Naphtha (petroleum), catalytic reformed
285-510-3	85116-59-2	Naphtha (petroleum), catalytic reformed light, arom.-free fraction

LOW BOILING POINT NAPHTHAS (GASOLINES)		
EC #	CAS #	EC name
289-220-8	86290-81-5	Gasoline
295-298-4	91995-38-9	Hydrocarbons, C4-6, depentanizer lights, arom. hydrotreater
295-331-2	91995-68-5	Extracts (petroleum), catalytic reformed light naphtha solvent
295-418-5	92045-37-9	Kerosine (petroleum), straight-run wide-cut
295-433-7	92045-52-8	Naphtha (petroleum), hydrodesulfurized full-range
295-440-5	92045-58-4	Naphtha (petroleum), isomerization, C6-fraction
295-441-0	92045-59-5	Naphtha (petroleum), light catalytic cracked sweetened
295-442-6	92045-60-8	Naphtha (petroleum), light, C5-rich, sweetened
295-445-2	92045-63-1	Hydrocarbons, C4-11, naphtha-cracking, arom.-free
295-446-8	92045-64-2	Hydrocarbons, C6-7, naphtha-cracking, solvent-refined
296-903-4	93165-19-6	Distillates (petroleum), C6-rich
297-401-8	93571-75-6	Aromatic hydrocarbons, C7-12, C8-rich
614-725-0	68783-11-9	Naphtha (petroleum), light polymn.
940-595-2		Renewable hydrocarbons of vegetable oil and/or animal fat origin (naphtha type fraction)

KEROSINES		
EC #	CAS #	EC name
232-366-4	8008-20-6	Kerosine (petroleum)
265-149-8	64742-47-8	Distillates (petroleum), hydrotreated light
265-184-9	64742-81-0	Kerosine (petroleum), hydrodesulfurized
294-799-5	91770-15-9	Kerosine (petroleum), sweetened
931-250-7		MK1 diesel fuel
941-379-0		Petroleum kerosene fraction, co-processed with renewable hydrocarbons of plant and/or animal origin - CPKAV

STRAIGHT-RUN GAS OILS		
EC #	CAS #	EC name
265-043-1	64741-43-1	Gas oils (petroleum), straight-run
265-044-7	64741-44-2	Distillates (petroleum), straight-run middle
272-341-5	68814-87-9	Distillates (petroleum), full-range straight-run middle
272-817-2	68915-96-8	Distillates (petroleum), heavy straight-run

CRACKED GAS OILS		
EC #	CAS #	EC name
265-060-4	64741-59-9	Distillates (petroleum), light catalytic cracked
265-062-5	64741-60-2	Distillates (petroleum), intermediate catalytic cracked
265-084-5	64741-82-8	Distillates (petroleum), light thermal cracked
295-411-7	92045-29-9	Gas oils (petroleum), thermal-cracked, hydrodesulfurized

VACUUM GAS OILS, HYDROCRACKED GAS OILS & DISTILLATE FUELS		
EC #	CAS #	EC name
265-049-4	64741-49-7	Condensates (petroleum), vacuum tower
265-059-9	64741-58-8	Gas oils (petroleum), light vacuum
265-078-2	64741-77-1	Distillates (petroleum), light hydrocracked
269-822-7	68334-30-5	Fuels, diesel
270-671-4	68476-30-2	Fuel oil, no. 2
270-673-5	68476-31-3	Fuel oil, no. 4
270-676-1	68476-34-6	Fuels, diesel, no. 2

OTHER GAS OILS		
EC #	CAS #	EC name
265-148-2	64742-46-7	Distillates (petroleum), hydrotreated middle
265-182-8	64742-79-6	Gas oils (petroleum), hydrodesulfurized
265-183-3	64742-80-9	Distillates (petroleum), hydrodesulfurized middle

HEAVY FUEL OIL COMPONENTS		
EC #	CAS #	EC name
265-045-2	64741-45-3	Residues (petroleum), atm. Tower
265-058-3	64741-57-7	Gas oils (petroleum), heavy vacuum
265-063-0	64741-61-3	Distillates (petroleum), heavy catalytic cracked
265-064-6	64741-62-4	Clarified oils (petroleum), catalytic cracked
265-069-3	64741-67-9	Residues (petroleum), catalytic reformer fractionator
265-076-1	64741-75-9	Residues (petroleum), hydrocracked
265-081-9	64741-80-6	Residues (petroleum), thermal cracked
265-082-4	64741-81-7	Distillates (petroleum), heavy thermal cracked
265-162-9	64742-59-2	Gas oils (petroleum), hydrotreated vacuum
265-181-2	64742-78-5	Residues (petroleum), hydrodesulfurized atmospheric tower
265-189-6	64742-86-5	Gas oils (petroleum), hydrodesulfurized heavy vacuum
269-777-3	68333-22-2	Residues (petroleum), atmospheric
270-675-6	68476-33-5	Fuel oil, residual
270-796-4	68478-17-1	Residues (petroleum), heavy coker gas oil and vacuum gas oil
271-384-7	68553-00-4	Fuel oil, no. 6
271-763-7	68607-30-7	Residues (petroleum), topping plant, low-sulfur
272-184-2	68783-08-4	Gas oils (petroleum), heavy atmospheric
273-263-4	68955-27-1	Distillates (petroleum), Petroleum residues vacuum
274-684-6	70592-77-7	Distillates (petroleum), light vacuum
274-685-1	70592-78-8	Distillates (petroleum), vacuum
292-658-2	90669-76-4	Residues (petroleum), vacuum, light
295-511-0	92061-97-7	Residues (petroleum), catalytic cracking
298-754-0	93821-66-0	Residual oils (petroleum)

UNREFINED / ACID TREATED OILS		
EC #	CAS #	EC name
265-051-5	64741-50-0	Distillates (petroleum), light paraffinic
265-052-0	64741-51-1	Distillates (petroleum), heavy paraffinic

HIGHLY REFINED BASE OILS		
EC #	CAS #	EC name
232-455-8	8042-47-5	White mineral oil (petroleum)

LUBRICANT BASE OILS		
EC #	CAS #	EC name
265-077-7	64741-76-0	Distillates (petroleum), heavy hydrocracked
265-090-8	64741-88-4	Distillates (petroleum), solvent-refined heavy paraffinic
265-091-3	64741-89-5	Distillates (petroleum), solvent-refined light paraffinic
265-096-0	64741-95-3	Residual oils (petroleum), solvent deasphalted
265-097-6	64741-96-4	Distillates (petroleum), solvent-refined heavy naphthenic
265-101-6	64742-01-4	Residual oils (petroleum), solvent-refined
265-155-0	64742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic
265-156-6	64742-53-6	Distillates (petroleum), hydrotreated light naphthenic
265-157-1	64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic

LUBRICANT BASE OILS		
EC #	CAS #	EC name
265-158-7	64742-55-8	Distillates (petroleum), hydrotreated light paraffinic
265-159-2	64742-56-9	Distillates (petroleum), solvent-dewaxed light paraffinic
265-160-8	64742-57-0	Residual oils (petroleum), hydrotreated
265-166-0	64742-62-7	Residual oils (petroleum), solvent-dewaxed
265-169-7	64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic
265-174-4	64742-70-7	Paraffin oils (petroleum), catalytic dewaxed heavy
265-176-5	64742-71-8	Paraffin oils (petroleum), catalytic dewaxed light
276-736-3	72623-85-9	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, high-viscosity
276-737-9	72623-86-0	Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based
276-738-4	72623-87-1	Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based
278-012-2	74869-22-0	Lubricating oils

UNTREATED DISTILLATE AROMATIC EXTRACTS		
EC #	CAS #	EC name
265-103-7	64742-04-7	Extracts (petroleum), heavy paraffinic distillate solvent
265-104-2	64742-05-8	Extracts (petroleum), light paraffinic distillate solvent

TREATED DISTILLATE AROMATIC EXTRACTS		
EC #	CAS #	EC name
272-180-0	68783-04-0	Extracts (petroleum), solvent-refined heavy paraffinic distillate solvent

RESIDUAL AROMATIC EXTRACTS		
EC #	CAS #	EC name
265-110-5	64742-10-5	Extracts (petroleum), residual oil solvent

SLACK WAXES		
EC #	CAS #	EC name
265-165-5	64742-61-6	Slack wax (petroleum)
292-660-3	90669-78-6	Slack wax (petroleum), clay-treated
295-523-6	92062-09-4	Slack wax (petroleum), hydrotreated

PARAFFIN AND HYDROCARBON WAXES		
EC #	CAS #	EC name
232-315-6	8002-74-2	Paraffin waxes and Hydrocarbon waxes
264-038-1	63231-60-7	Paraffin waxes and Hydrocarbon waxes, microcryst.
265-144-0	64742-42-3	Hydrocarbon waxes (petroleum), clay-treated microcryst.
265-145-6	64742-43-4	Paraffin waxes (petroleum), clay-treated
265-154-5	64742-51-4	Paraffin waxes (petroleum), hydrotreated
265-163-4	64742-60-5	Hydrocarbon waxes (petroleum), hydrotreated microcryst.

FOOTS OILS		
EC #	CAS #	EC name
265-171-8	64742-67-2	Foots oil (petroleum)
295-394-6	92045-12-0	Foots oil (petroleum), hydrotreated

PETROLATUMS		
EC #	CAS #	EC name
232-373-2	8009-03-8	Petrolatum

BITUMENS		
EC #	CAS #	EC name
232-490-9	8052-42-4	Asphalt
265-057-8	64741-56-6	Residues (petroleum), vacuum
295-518-9	92062-05-0	Residues (petroleum), thermal cracked vacuum

OXIDIZED ASPHALT		
EC #	CAS #	EC name
265-196-4	64742-93-4	Asphalt, oxidized

SULFUR		
EC #	CAS #	EC name
231-722-6	7704-34-9	Sulfur

RENEWABLE DEOXYGENATE DIESEL		
EC #	CAS #	EC name
951-915-5		Renewable hydrocarbons (deoxygenate diesel type fraction)

SOLVENT NAPHTHA		
EC #	CAS #	EC name
265-198-5	64742-94-5	Solvent naphtha (petroleum), heavy arom.

CO-PROCESSED GAS OIL FROM PLANT/ANIMAL ORIGIN		
EC #	CAS #	EC name
941-364-9		Petroleum gas oil fraction, co-processed with renewable hydrocarbons of plant and/or animal origin.

CO-PROCESSED (THERMAL CRACKING) GAS OIL FROM WASTE PLASTICS		
EC #	CAS #	EC name
955-454-0		Residues from petroleum gas oil fractions, co-processed (thermal cracking) with waste plastics.

CO-PROCESSED DIESEL/GAS OIL FROM THERMALLY CRACKED PLASTICS		
EC #	**CAS #**	**EC name**
941-803-4		Petroleum diesel/gas oil fraction, co-processed with renewable hydrocarbons derived from thermally cracked plastics.

CO-PROCESSED (HYDROTREATED) NAPHTHA FROM PLANT/ANIMAL ORIGIN		
EC #	**CAS #**	**EC name**
941-381-1		Petroleum naphtha fraction, co-processed (hydrotreatment) with renewable hydrocarbons of plant and/or animal origin

CO-PROCESSED NAPHTHA FROM THERMALLY CRACKED PLASTICS		
EC #	**CAS #**	**EC name**
941-806-0		Petroleum naphtha fraction, co-processed with hydrocarbons derived from thermally cracked plastics

APPENDIX 2: REGULATORY AND OIL INDUSTRY NOTES

The classification and labelling recommendations in this report for the various categories and stand-alone UVCB hydrocarbon substances have been developed by Concawe based on available information and application of a default most severe classification. It is recognised, however, that for some endpoints, alternative classifications may be applicable, due to the variable properties of individual substances. The 'default' classifications apply, unless the conditions identified in the classification "Notes" listed below are met. These Notes are either derived from Annex VI Part 1 of the CLP Regulation or have been developed by the oil industry as a practical solution for the provision of reliable and consistent hazard classifications.

The preferred method for hazard classification of UVCB hydrocarbon substances is to use data on the UVCB substance itself, where available. For certain human health hazard endpoints, classification is driven by the presence of specific hazardous constituents that are themselves classified, and for which general or specific concentration limits exist. An example is the classification of naphtha petroleum streams as carcinogens based on their benzene content.

For some categories of UVCB hydrocarbon substances, 'markers' have been identified which take into account the variable compositions of UVCB hydrocarbon substances; for these substances, human health hazard classification is addressed using "Notes".

It is important to recognise that these regulatory Notes only apply to specific UVCB hydrocarbon substances in Annex VI to CLP. In addition to the regulatory Notes, Concawe has developed a series of Oil Industry Notes (OIN), which also deal with hazardous properties which may be associated with UVCB hydrocarbon substances and need to be considered when determining the hazard classifications. As a worst-case, the most severe hazard classifications must be applied, unless the conditions of the OIN have been met. This is consistent with the approach used with the regulatory Notes.

For example, regulatory Note P applies to most of the CAS RNs in the Low Boiling Point Naphthas (Gasoline) Category that appear in Annex VI. OIN P was developed for the remaining CAS RNs in the Low Boiling Point Naphthas (Gasoline) Category not covered by the regulatory Note P.

Additionally, new OINs are developed for the C&L permutations based on cumene content for Kerosines (Kerosine) Category as well as for substances in Low Boiling Point Naphthas (Gasoline) Category when the regulatory Note P or OIN P apply (benzene content <0,1%w/w).

- Note: as in the Regulation (EC) No 1272/2008, as amended by the 23rd ATP (which applies from 10 July 2025, with a transition period until 1st February 2027).

- OIN: Oil Industry Note

Note	Text
Note L	The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3% of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

Note	Text
Note N	The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.
Note P	The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.
OIN 5	The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3% w/w toluene (Einecs No 203-625-9).
OIN 6	The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3% w/w n-hexane (Einecs No 203-777-6).
OIN 8	The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.
OIN 10	The classification as a carcinogen needs not apply if it can be shown that the substance has mutagenicity index (MI) less than 0.4 as measured by the test method described in ASTM E 1687-04 or if another predictive test demonstrates the substance is not a carcinogen.
OIN 14	The classification as a specific target organ toxicant category 2; H373 (May cause damage to organs through prolonged or repeated exposure) needs not apply if the substance is not classified as carcinogenic.
OIN P	The following Oil industry note (OIN) applies instead of Note P: The classifications as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1 % w/w benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102-) P260-P262-P301+P310-P331 shall apply.
OIN 15	The following Oil industry note (OIN) applies only when Note P applies, (<0.1% benzene): The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (Einecs No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.
OIN 16	The following Oil industry note (OIN) applies to Kerosines: The classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (Einecs No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

APPENDIX 3: C&L PERMUTATIONS

The information included in this Appendix is aimed at supporting the industry with recommended classification and labelling (C&L), as needed for either direct inclusion in the safety data sheet (SDS) for UVCB hydrocarbon substances or as basis for deriving the classification and labelling of mixtures containing UVCB hydrocarbon substances, while considering the relevant substance characteristics (C&L drivers) leading to a certain classification and labelling (C&L permutation).

For each classified C&L permutation the following information is provided:

- **Classification and labelling according to CLP / GHS**. Contains the classification of the substance for each classified endpoint (for Section 2.1 of the SDS):
  - hazard class;
  - hazard category;
  - regulatory and oil industry notes applied;
  - associated hazard statement (H), with code and full text including variable parts completed, where possible.
- **Labelling**. Contains the following elements (for the Label and for Section 2.2 of the SDS):
  - signal word;
  - hazard pictogram(s) (GHS), with code, description and picture;
  - hazard statement(s) (H), with code and full text including variable parts completed;
  - not more than six recommended precautionary statement(s) (P), with code and full text - the text in *italics* between brackets provides instructions where the applicable precautionary statement text must be adapted by each manufacturer/supplier;
  - when relevant, additional applicable label elements (EUH066, 'lamp oils and grill lighters', 'restricted to professional users').

The C&L permutations result from the entry in Part 3 of Annex VI of CLP, if any, and from the self-classification for all other hazard classes or differentiations not covered there, as relevant. Where relevant, the Note(s) from Part 3 of Annex VI of CLP and/or the Oil Industry Note(s) (OIN) that have been applied to the C&L permutation are provided.

Each chapter in this Appendix is named with the full group name and (in brackets) the short name of the group.

Each chapter contains all permutations that could be applied to the relevant UVCB hydrocarbon substances category. For substances which have been registered under REACH not all permutations listed within a UVCB hydrocarbon substance category are applicable to every substance. The tables in each chapter show which C&L permutations codes can currently be assigned to each substance within the UVCB hydrocarbon substance categories.

The classification given in the SDS should be the same as the classification provided in the notification to the C&L inventory and/or the substance registration dossier submitted to ECHA.

LOW BOILING POINT NAPHTHAS (GASOLINES) (NAPHTHA)

Definition / Domain: The domain of this category is established by the refining processes by which the category members are produced, the predominant hydrocarbon classes present, the boiling point range and the carbon number range as follows:

- Derived from crude petroleum, separated as a liquid from natural gas, fatty acid based oils and fats, waste or by-product bio-oils, the products of pyrolysis of biomass and waste plastics and chemical feedstocks such as methanol.
- Refinery processes
  - atmospheric distillation
  - alkylation
  - isomerisation
  - catalytic cracking
  - thermal cracking
  - catalytic reforming
  - catalytic polymerisation
  - sweetening/mercaptan conversion
  - neutralisation
  - solvent extraction
  - hydrotreatment / hydrodesulfurization
  - hydrocracking
  - hydrotreatment / hydroisomerisation
- Hydrocarbon types: saturated, olefinic, aromatic
- Typical boiling point range: approximately 25°C to 200°C
- Typical carbon number range: predominantly C_4 to C_{12}

Appendix 1 lists only those Naphtha substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 01. Naphtha**) must be applied.

C&L drivers					C&L permutation
Benzene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 01. Naphtha**
Benzene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 02. Naphtha**
Benzene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane ≥ 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 03. Naphtha**
Benzene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 04. Naphtha**
Benzene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 05. Naphtha**
Benzene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 06. Naphtha**
Benzene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 07. Naphtha**
Benzene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 08. Naphtha**
Benzene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 09. Naphtha**
Benzene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 10. Naphtha**
Benzene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 11. Naphtha**

C&L drivers					C&L permutation
Benzene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 12. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene ≥ 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 13. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene ≥ 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 14. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 16. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 17. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 18. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 19. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 20. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 21. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 22. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 23. Naphtha**
Benzene < 0.1%w/w Cumene < 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 24. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 25. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 26. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 28. Naphtha**

C&L drivers					C&L permutation
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 29. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene ≥ 3% w/w	n-hexane < 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 30. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 31. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 32. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane ≥ 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 33. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point ≤ 35°C	**CLP 34. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point < 23°C	Initial boiling point > 35°C	**CLP 35. Naphtha**
Benzene < 0.1%w/w Cumene ≥ 0.1%w/w	Toluene < 3% w/w	n-hexane < 3% w/w	Flash point ≥ 23°C and ≤ 60°C		**CLP 36. Naphtha**

Note: The substances with EC# No 295-418-5 and 614-725-0 are not included in Annex VI of CLP and therefore Note OIN P is applied instead of Note P to permutations CLP 13 to CLP 36.

In accordance with the 5th ATP to the CLP Regulation, the following additional classification applies to the substance with EC No 265-185-4.

Hazard class	Hazard category	Hazard statement
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Central nervous system	H372: Causes damage to central nervous system through prolonged or repeated exposure.

Note 1: In the registration dossiers, the permutations CLP 01 to CLP 24 for EC No 265-185-4 are named as **White Spirit** instead of Naphtha, to highlight the different hazard profile.

Note 2: Additional classification and labelling STOT RE 1 applies case-by-case if Benzene content is ≥10% w/w in Naphtha category substances.

In this particular case, the following precautionary statements should be considered (if not already included):

P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P264: Wash … thoroughly after handling. (*Manufacturer/supplier to specify parts of the body to be washed after handling.*)
P270: Do not eat, drink or smoke when using this product.
P314: Get medical advice/attention if you feel unwell.

P501: Dispose of contents/container to … (… *in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

LOW BOILING POINT NAPHTHAS (GASOLINES)		
EC #	**CAS #**	**Acceptable C&L permutations**
232-349-1	8006-61-9	CLP 01
265-041-0	64741-41-9	CLP 01, CLP 02, CLP 05, CLP 06, CLP 08, CLP 11, CLP 12, CLP 18, CLP 23, CLP 24, CLP 30, CLP 35, CLP 36
265-042-6	64741-42-0	CLP 01, CLP 02, CLP 03, CLP 04, CLP 05, CLP 06, CLP 07, CLP 08, CLP 09, CLP 10, CLP 13, CLP 19, CLP 20, CLP 22, CLP 23, CLP 25, CLP 31, CLP 32, CLP 34, CLP 35
265-046-8	64741-46-4	CLP 01, CLP 02, CLP 04, CLP 07, CLP 08, CLP 09, CLP 10
265-055-7	64741-54-4	CLP 01, CLP 02, CLP 03, CLP 04, CLP 05, CLP 10, CLP 11, CLP 16, CLP 17, CLP 18, CLP 22, CLP 23, CLP 24, CLP 28, CLP 29, CLP 30, CLP 34, CLP 35, CLP 36
265-056-2	64741-55-5	CLP 01, CLP 02, CLP 04, CLP 05, CLP 07, CLP 10, CLP 11
265-065-1	64741-63-5	CLP 01, CLP 02, CLP 04, CLP 05, CLP 07, CLP 08, CLP 09, CLP 10
265-066-7	64741-64-6	CLP 01, CLP 19, CLP 22, CLP 23, CLP 31, CLP 34, CLP 35
265-068-8	64741-66-8	CLP 20, CLP 23, CLP 32, CLP 35
265-070-9	64741-68-0	CLP 01, CLP 02, CLP 05, CLP 17, CLP 24, CLP 29, CLP 36
265-071-4	64741-69-1	CLP 01, CLP 02, CLP 03, CLP 05, CLP 07, CLP 08, CLP 09, CLP 10, CLP 11, CLP 19, CLP 20, CLP 22, CLP 23, CLP 31, CLP 32, CLP 34, CLP 35
265-073-5	64741-70-4	CLP 01, CLP 02, CLP 07, CLP 10, CLP 13, CLP 19, CLP 20, CLP 21, CLP 22, CLP 23, CLP 25, CLP 31, CLP 32, CLP 33, CLP 34, CLP 35
265-075-6	64741-74-8	CLP 01, CLP 07, CLP 08, CLP 11
265-079-8	64741-78-2	CLP 02, CLP 05, CLP 07, CLP 08, CLP 11, CLP 14, CLP 17, CLP 20, CLP 21, CLP 23, CLP 24, CLP 26, CLP 29, CLP 32, CLP 33, CLP 35, CLP 36
265-085-0	64741-83-9	CLP 01, CLP 02, CLP 04, CLP 07, CLP 08, CLP 10, CLP 24, CLP 36
265-086-6	64741-84-0	CLP 01, CLP 02, CLP 08, CLP 13, CLP 20, CLP 22, CLP 23, CLP 25, CLP 32, CLP 34, CLP 35
265-089-2	64741-87-3	CLP 01, CLP 02, CLP 04, CLP 05, CLP 08, CLP 10, CLP 20, CLP 24, CLP 32, CLP 36
265-150-3	64742-48-9	CLP 01, CLP 02, CLP 05, CLP 11, CLP 14, CLP 17, CLP 18, CLP 23, CLP 24, CLP 26, CLP 29, CLP 30, CLP 35, CLP 36
265-151-9	64742-49-0	CLP 01, CLP 02, CLP 03, CLP 04, CLP 07, CLP 08, CLP 09, CLP 10, CLP 13, CLP 16, CLP 20, CLP 22, CLP 23, CLP 24, CLP 25, CLP 28, CLP 32, CLP 34, CLP 35, CLP 36
265-178-6	64742-73-0	CLP 01, CLP 02, CLP 04, CLP 05, CLP 07, CLP 08, CLP 10, CLP 11, CLP 17, CLP 29
265-185-4	64742-82-1	CLP 01, CLP 02, CLP 03, CLP 05, CLP 07, CLP 11, CLP 20, CLP 23, CLP 24
265-192-2	64742-89-8	CLP 01, CLP 07, CLP 08, CLP 22, CLP 23, CLP 24, CLP 34, CLP 35, CLP 36
265-199-0	64742-95-6	CLP 04, CLP 05, CLP 08, CLP 24, CLP 36
270-660-4	68475-79-6	CLP 01, CLP 02, CLP 03, CLP 10, CLP 22, CLP 34
270-686-6	68476-46-0	CLP 02, CLP 05, CLP 10, CLP 11
270-690-8	68476-50-6	CLP 01, CLP 02, CLP 04, CLP 07, CLP 08, CLP 19, CLP 22, CLP 31, CLP 34
270-695-5	68476-55-1	CLP 01, CLP 10, CLP 11, CLP 22, CLP 34
270-993-5	68513-03-1	CLP 01, CLP 02, CLP 08
271-267-0	68527-27-5	CLP 01, CLP 04, CLP 10, CLP 11, CLP 22, CLP 23, CLP 34, CLP 35
271-635-0	68603-08-7	CLP 05
271-727-0	68606-11-1	CLP 01, CLP 02, CLP 07, CLP 08, CLP 22, CLP 23, CLP 24, CLP 34, CLP 35, CLP 36
272-186-3	68783-12-0	CLP 01, CLP 02, CLP 07, CLP 08, CLP 16, CLP 17, CLP 21, CLP 22, CLP 23, CLP 24, CLP 28, CLP 29, CLP 33, CLP 34, CLP 35, CLP 36

LOW BOILING POINT NAPHTHAS (GASOLINES)		
EC #	CAS #	Acceptable C&L permutations
272-895-8	68919-37-9	CLP 01, CLP 02, CLP 05, CLP 10, CLP 11, CLP 22, CLP 23, CLP 24, CLP 34, CLP 35, CLP 36
272-931-2	68921-08-4	CLP 01, CLP 07, CLP 08
273-271-8	68955-35-1	CLP 01, CLP 02, CLP 04, CLP 05, CLP 07, CLP 08, CLP 24, CLP 36
285-510-3	85116-59-2	CLP 01, CLP 02, CLP 10, CLP 20, CLP 32
289-220-8	86290-81-5	CLP 01, CLP 02, CLP 03, CLP 04, CLP 05, CLP 06, CLP 07, CLP 08, CLP 09, CLP 10, CLP 11, CLP 12, CLP 13, CLP 14, CLP 16, CLP 17, CLP 19, CLP 20, CLP 22, CLP 23, CLP 25, CLP 26, CLP 28, CLP 29, CLP 31, CLP 32, CLP 34, CLP 35
295-298-4	91995-38-9	CLP 07, CLP 10, CLP 22, CLP 34
295-331-2	91995-68-5	CLP 01, CLP 05
295-418-5	92045-37-9	CLP 08, CLP 23, CLP 24
295-433-7	92045-52-8	CLP 01, CLP 04, CLP 05, CLP 07, CLP 08
295-440-5	92045-58-4	CLP 08, CLP 23, CLP 35
295-441-0	92045-59-5	CLP 01, CLP 02, CLP 04, CLP 05, CLP 10, CLP 11, CLP 12, CLP 23, CLP 35
295-442-6	92045-60-8	CLP 19, CLP 20, CLP 21, CLP 22, CLP 23, CLP 24, CLP 31, CLP 32, CLP 33, CLP 34, CLP 35, CLP 36
295-445-2	92045-63-1	CLP 08
295-446-8	92045-64-2	CLP 08
296-903-4	93165-19-6	CLP 01, CLP 02, CLP 05, CLP 08, CLP 19, CLP 20, CLP 22, CLP 23, CLP 31, CLP 32, CLP 34, CLP 35
297-401-8	93571-75-6	CLP 02, CLP 05, CLP 06, CLP 17, CLP 23, CLP 24, CLP 29, CLP 35, CLP 36
614-725-0	68783-11-9	CLP 13, CLP 22, CLP 23, CLP 24
940-595-2		CLP 01, CLP 02, CLP 07, CLP 10, CLP 13, CLP 19, CLP 20, CLP 21, CLP 22, CLP 23, CLP 25, CLP 31, CLP 32, CLP 33, CLP 34, CLP 35

CLP 01. Naphtha (Benzene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility and unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 02. Naphtha (Benzene ≥0.1% w/w; Toluene ≥ 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility and unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 03. Naphtha (Benzene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane ≥ 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility and unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 04. Naphtha (Benzene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Oil Industry Note (OIN) has been applied:

- OIN 6 - The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3% w/w n-hexane (EINECS No 203-777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 05. Naphtha (Benzene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Oil Industry Note (OIN) has been applied:

- OIN 6 - The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3% w/w n-hexane (EINECS No 203-777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 06. Naphtha (Benzene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Oil Industry Note (OIN) has been applied:

- OIN 6 - The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3% w/w n-hexane (EINECS No 203-777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 07. Naphtha (Benzene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Oil Industry Note (OIN) has been applied:

- OIN 5 - The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3% w/w toluene (EINECS No 203-625-9).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion/irritation	Skin Irrit. 2	H315: Causes skin irritation	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361f: Suspected of damaging fertility.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 08. Naphtha (Benzene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Oil Industry Note (OIN) has been applied:

- OIN 5 - The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3% w/w toluene (EINECS No 203-625-9).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361f: Suspected of damaging fertility.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 09. Naphtha (Benzene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Oil Industry Note (OIN) has been applied:

- OIN 5 - The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3% w/w toluene (EINECS No 203-625-9).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361f: Suspected of damaging fertility.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 10. Naphtha (Benzene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Oil Industry Notes (OIN) have been applied:

- OIN 5 - The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3% w/w toluene (EINECS No 203-625-9).

- OIN 6 - The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3% w/w n-hexane (EINECS No 203-777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 11. Naphtha (Benzene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Oil Industry Notes (OIN) have been applied:

- OIN 5 - The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3% w/w toluene (EINECS No 203-625-9).

- OIN 6 - The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3% w/w n-hexane (EINECS No 203-777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 12. Naphtha (Benzene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Oil Industry Notes (OIN) have been applied:

- OIN 5 - The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3% w/w toluene (EINECS No 203-625-9).

- OIN 6 - The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3% w/w n-hexane (EINECS No 203-777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as mutagenic Category 1B and carcinogenic Category 1B, except for fuel uses.

CLP 13. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene ≥ 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility and unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 14. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene ≥ 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility and unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 16. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.
H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 17. Naphtha (Benzene < 0.1% w/w ; Cumene < 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.

H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 18. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.

H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 19. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H361f: Suspected of damaging fertility.

H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 20. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H361f: Suspected of damaging fertility.

H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 21. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H361f: Suspected of damaging fertility.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 22. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 23. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 24. Naphtha (Benzene < 0.1% w/w; Cumene < 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

- OIN 15: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.]

CLP 25. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility and unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 26. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility and unborn child	H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(Manufacturer/supplier to specify type of equipment.)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 28. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H224: Extremely flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.)*
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 29. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment*.)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 30. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene ≥ 3% w/w; n-hexane < 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 31. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H361f: Suspected of damaging fertility.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment*.)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 32. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C) The following Note has been applied:

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.

H361f: Suspected of damaging fertility.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment*.)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 33. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane ≥ 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Fertility	H361f: Suspected of damaging fertility.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H361f: Suspected of damaging fertility.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 34. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point ≤ 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment*.)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

CLP 35. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint < 23°C and Initial boiling point > 35°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H225: Highly flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment*.)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102) P260-P262-P301 + P310-P331 shall apply.]

CLP 36. Naphtha (Benzene <0.1% w/w; Cumene ≥ 0.1% w/w; Toluene < 3% w/w; n-hexane < 3% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Note has been applied:

- Note P: The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.

The following Oil Industry Note (OIN) has been applied:

- OIN 5: The classification as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) needs not apply if it can be shown that the substance contains less than 3 % w/w toluene (EINECS No 203-625-9).

- OIN 6: The classification as a reproductive toxicant category 2; H361f (Suspected of damaging fertility) needs not apply if it can be shown that the substance contains less than 3 % w/w n-hexane (EINECS No 203 777-6).

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H226: Flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment*.)
P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.).
P331: Do NOT induce vomiting.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

Notes:

Note P [The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102)P260-P262-P301 + P310-P331 shall apply.]

KEROSINES (KEROSINE)

Definition / Domain: The domain of this category is established by the refining processes by which the category members are produced, the predominant hydrocarbon classes present, the boiling point range and the carbon number range. The distillation range of Kerosine substances is such that components of specific toxicological concern such as benzene (boiling point 80°C) and n-hexane (boiling point 69°C) are typically only present at trace concentrations. The boiling points of the toxic, 3 to 7 fused-ring polycyclic aromatic hydrocarbons (PAHs) are generally above the boiling range of straight-run Kerosine substances' streams.

- Derived from crude petroleum or natural gas condensates or produced by co- processing of a petroleum kerosine fraction with plant oils and/or animal fats.
- Refinery processes:
  - atmospheric distillation
  - hydrotreatment / hydrodesulfurization
  - sweetening / mercaptan conversion
  - catalytic reforming
  - blending to specification
  - hydrotreatment / hydrodeoxygenation
- Hydrocarbon types: the major components include branched and straight chain paraffins and naphthenes (cycloparaffins), and aromatic hydrocarbons (mainly alkylbenzenes and alkylnaphthalenes).
- Typical boiling point range: approximately 90°C to 320°C
- Typical carbon number range: predominantly C_6 to C_{17}

Appendix 1 lists only those Kerosine substances with active registrations at the time of issuing this report.

The table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 3. Kerosine**) must be applied.

C&L drivers	C&L permutation
Cumene <0.1% w/w; Flashpoint ≥ 23°C and ≤ 60°C	**CLP 1. Kerosine**
Cumene <0.1% w/w; Flashpoint > 60°C	**CLP 2. Kerosine**
Cumene ≥ 0.1% w/w; Flashpoint ≥ 23°C and ≤ 60°C	**CLP 3. Kerosine**
Cumene ≥ 0.1% w/w; Flashpoint > 60°C	**CLP 4. Kerosine**

KEROSINES		
EC #	**CAS #**	**Acceptable C&L permutations**
232-366-4	8008-20-6	CLP 1, CLP 2, CLP 3, CLP 4
265-149-8	64742-47-8	CLP 1, CLP 2, CLP 3, CLP 4
265-184-9	64742-81-0	CLP 1, CLP 2, CLP 3, CLP 4
294-799-5	91770-15-9	CLP 1, CLP 2, CLP 3, CLP 4
931-250-7		CLP 1, CLP 2, CLP 3, CLP 4
941-379-0		CLP 1, CLP 2, CLP 3, CLP 4

CLP 1. Kerosine (Cumene <0.1% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Oil Industry Notes (OIN) have been applied:

- OIN 16: The classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102: Keep out of reach of children. *(In case of consumer use P102 should be added on the label)*
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements: For use by Consumers in lamp oils, container labels should be marked as follows: Keep lamps filled with this liquid out of the reach of children. Just a sip of lamp oil – or even sucking the wick of lamps may lead to life-threatening lung damage.

For use by Consumers in grill lighters, container labels should be marked as follows: Just a sip of grill lighter

may lead to life-threatening lung damage.

CLP 2. Kerosine (Cumene <0.1% w/w; Flashpoint > 60°C)

The following Oil Industry Notes (OIN) have been applied:

- OIN 16: The classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102: Keep out of reach of children. *(In case of consumer use P102 should be added on the label)*
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

For use by Consumers in lamp oils, container labels should be marked as follows: Keep lamps filled with this liquid out of the reach of children. Just a sip of lamp oil – or even sucking the wick of lamps may lead to life-threatening lung damage.

For use by Consumers in grill lighters, container labels should be marked as follows: Just a sip of grill lighter may lead to life-threatening lung damage.

CLP 3. Kerosine (Cumene ≥ 0.1% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

CLP 4. Kerosine (Cumene ≥ 0.1% w/w; Flashpoint > 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:
Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

STRAIGHT-RUN GAS OILS (SRGO)

Definition / Domain: The domain of this category is established by the refining process by which the category members are produced and the boiling point and the carbon number range, as follows:

- Derived from atmospheric distillation of crude petroleum
- Refinery process
  - Atmospheric distillation
- Hydrocarbon types: straight and branched alkanes and alkenes, cycloalkanes and cycloalkenes, aromatics and mixed aromatic cycloalkanes.
- Boiling point range: 150 – 399°C
- Carbon number range: predominantly C_9 to C_{25}

Appendix 1 lists only those SRGO substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. SRGO**) must be applied.

C&L drivers		C&L permutation
Viscosity ≤ 20.5 mm²/s at 40°C	Flash point ≥ 23°C and ≤ 75°C	**CLP 1. SRGO**
	Flash point > 75°C	**CLP 2. SRGO**
Viscosity > 20.5 mm²/s at 40°C	Flash point ≥ 23°C and ≤ 75°C	**CLP 3. SRGO**
	Flash point > 75°C	**CLP 4. SRGO**

STRAIGHT-RUN GAS OILS		
EC No	**CAS No**	**Acceptable C&L permutations**
265-043-1	64741-43-1	CLP 1, CLP 2, CLP 3, CLP 4
265-044-7	64741-44-2	CLP 1, CLP 2
272-341-5	68814-87-9	CLP 1, CLP 2
272-817-2	68915-96-8	CLP 1, CLP 2, CLP 4

CLP 1. SRGO (Viscosity ≤ 20.5 mm²/s at 40°C; Flash point ≥ 23°C and ≤ 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3 *	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Liver, spleen, bone marrow	H373: May cause damage to liver, spleen and bone marrow through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

* For the purpose of CLP gas oils, diesel and light heating oils having a flash point between ≥ 55°C and ≤ 75°C may be regarded as Category 3.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H332: Harmful if inhaled.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to liver, spleen and bone marrow through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*).
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(Manufacturer/supplier to specify type of equipment.)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P331: Do NOT induce vomiting.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.

CLP 2. SRGO (Viscosity ≤ 20.5 mm²/s at 40°C; Flash point > 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Liver, spleen, bone marrow	H373: May cause damage to liver, spleen and bone marrow through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H332: Harmful if inhaled.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to liver, spleen and bone marrow through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*).
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(Manufacturer/supplier to specify type of equipment.)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P331: Do NOT induce vomiting.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…

P361: Take off immediately all contaminated clothing.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.

CLP 3. SRGO (Viscosity > 20.5 mm²/s at 40°C; Flash point ≥ 23°C and ≤ 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3 *	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Liver, spleen, bone marrow	H373: May cause damage to liver, spleen and bone marrow through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

* For the purpose of CLP gas oils, diesel and light heating oils having a flash point between ≥ 55°C and ≤ 75°C may be regarded as Category 3.

Labelling

Signal word: Warning

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H332: Harmful if inhaled.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to liver, spleen and bone marrow through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*).
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(Manufacturer/supplier to specify type of equipment.)
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.

P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.

CLP 4. SRGO (Viscosity > 20.5 mm²/s at 40°C; Flash point > 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Liver, spleen, bone marrow	H373: May cause damage to liver, spleen and bone marrow through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Warning

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H332: Harmful if inhaled.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to liver, spleen and bone marrow through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(Manufacturer/supplier to specify type of equipment.)
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.

CRACKED GAS OILS (CRACKEDGO)

Definition / Domain: The domain of this category is established by the refining processes by which the category members are produced and the boiling point and the carbon number range as follows:

- Derived from crude petroleum
- Refinery processes
    - atmospheric distillation
    - vacuum distillation
    - catalytic cracking
    - thermal cracking
    - hydrotreatment / hydrodesulfurization
- Hydrocarbon types: aromatics, alkylated aromatics, mixed aromatic cycloalkanes, straight and branched alkanes and alkenes, cycloalkanes and cycloalkenes.
- Boiling point range: 150 - 411°C
- Carbon number range: predominantly C_9 to C_{30}

Appendix 1 lists only those CrackedGO substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. CrackedGO**) must be applied.

C&L drivers	C&L permutation
Flash point ≥ 23°C and ≤ 75°C	CLP 1. CrackedGO
Flash point > 75°C	CLP 2. CrackedGO

CRACKED GAS OILS		
EC #	CAS #	Acceptable C&L permutations
265-060-4	64741-59-9	CLP 1, CLP 2
265-062-5	64741-60-2	CLP 1, CLP 2
265-084-5	64741-82-8	CLP 1, CLP 2
295-411-7	92045-29-9	CLP 1, CLP 2

CLP 1. CrackedGO (Flash point ≥ 23°C and ≤ 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3 *	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects by dermal route.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, thymus, liver	H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (acute/short-term):	Aquatic Acute 1	H400: Very toxic to aquatic life (M-Factor =1).	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects (M-Factor =1).	based on the substance itself

* For the purpose of CLP gas oils, diesel and light heating oils having a flash point between ≥ 55°C and ≤ 75°C may be regarded as Category 3.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H341: Suspected of causing genetic defects by dermal route.
H350: May cause cancer.
H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects (M-Factor =1).

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

CLP 2. CrackedGO (Flash point > 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects by dermal route.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, thymus, liver	H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (acute/short-term):	Aquatic Acute 1	H400: Very toxic to aquatic life (M-Factor =1).	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects (M-Factor =1).	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H341: Suspected of causing genetic defects by dermal route.
H350: May cause cancer.
H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects (M-Factor =1).

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

VACUUM GAS OILS, HYDROCRACKED GAS OILS & DISTILLATE FUELS (VHGO)

Definition / Domain: The domain of this category is established by the refining processes by which the category members are produced and the boiling point and the carbon number range as follows:

- Derived from crude petroleum and/or natural gas condensates
- Refinery processes
    - Atmospheric distillation
    - Vacuum distillation
    - Hydrocracking
    - Blending of petroleum substances to produce the following CAS RNs
        - 68334-30-5 Fuels, Diesel
        - 68476-30-2 Fuel Oil No. 2
        - 68476-31-3 Fuel Oil No 4
        - 68476-34-6 Fuels Diesel No 2
- Hydrocarbon types: straight and branched alkanes and alkenes, cycloalkanes and cycloalkenes, aromatics and mixed aromatic cycloalkanes.
- Boiling point range: 141 - 462°C
- Carbon number range: predominantly C_9 to C_{30}

Appendix 1 lists only those VHGO substances with active registrations at the time of issuing this report.

Although Part 3 of Annex VI of CLP includes Note N
("The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.")
for the VHGO substance with EC 269-822-7, this Note is not applied in any of the C&L permutations and, therefore, all VHGO substances are classified as Carcinogenic Cat. 2.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. VHGO**) must be applied.

C&L drivers		C&L permutation
Viscosity ≤ 20.5 mm²/s at 40°C	Flash point ≥ 23°C and ≤ 75°C	**CLP 1. VHGO**
	Flash point > 75°C	**CLP 2. VHGO**
Viscosity > 20.5 mm²/s at 40°C	Flash point ≥ 23°C and ≤ 75°C	**CLP 3. VHGO**
	Flash point > 75°C	**CLP 4. VHGO**

VACUUM GAS OILS, HYDROCRACKED GAS OILS & DISTILLATE FUELS		
EC #	**CAS #**	**Acceptable C&L permutations**
265-049-4	64741-49-7	CLP 1, CLP 2, CLP 3, CLP 4
265-059-9	64741-58-8	CLP 1, CLP 2, CLP 3, CLP 4
265-078-2	64741-77-1	CLP 1, CLP 2, CLP 3, CLP 4
269-822-7	68334-30-5	CLP 1, CLP 2
270-671-4	68476-30-2	CLP 1, CLP 2, CLP 4
270-673-5	68476-31-3	CLP 1, CLP 2
270-676-1	68476-34-6	CLP 1

CLP 1. VHGO (Viscosity ≤ 20.5 mm²/s at 40°C; Flash point ≥ 23°C and ≤ 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3 *	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 2	H351: Suspected of causing cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Thymus, liver, bone marrow	H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

* For the purpose of CLP gas oils, diesel and light heating oils having a flash point between ≥ 55°C and ≤ 75°C may be regarded as Category 3.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H351: Suspected of causing cancer.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P308+P313: IF exposed or concerned: Get medical advice/attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P318: IF exposed or concerned, get medical advice.
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).)

CLP 2. VHGO (Viscosity ≤ 20.5 mm²/s at 40°C; Flash point > 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 2	H351: Suspected of causing cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Thymus, liver, bone marrow	H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H351: Suspected of causing cancer.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).)

CLP 3. VHGO (Viscosity > 20.5 mm²/s at 40°C; Flash point ≥ 23°C and ≤ 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3 *	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 2	H351: Suspected of causing cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Thymus, liver, bone marrow	H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

* For the purpose of CLP gas oils, diesel and light heating oils, having a flash point between ≥ 55°C and ≤ 75°C may be regarded as Category 3.

Labelling

Signal word: Warning

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H351: Suspected of causing cancer.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).)

CLP 4. VHGO (Viscosity > 20.5 mm²/s at 40°C; Flash point > 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 2	H351: Suspected of causing cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Thymus, liver, bone marrow	H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Warning

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H315: Causes skin irritation.
H332: Harmful if inhaled.
H351: Suspected of causing cancer.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P340: Remove person to fresh air and keep comfortable for breathing.

P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).)

OTHER GAS OILS (OTHERGO)

Definition / Domain: The domain of this category is established by the refining process by which the category members are produced and the boiling point and the carbon number range as follows:

- Derived from crude petroleum and/or natural gas condensates
- Refinery processes
  - atmospheric distillation
  - vacuum distillation
  - hydrotreating
  - hydrotreatment / hydrodesulfurization
- Hydrocarbon types: aromatics, alkylated aromatics, mixed aromatic cycloalkanes. straight and branched alkanes and alkenes, cycloalkanes and cycloalkenes.
- Boiling point range: 172 - 379°C
- Carbon number range: predominantly C_9 to C_{36}

Appendix 1 lists only those OtherGO substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. OtherGO**) must be applied.

C&L drivers		C&L permutation
Carcinogenic or unknown feed-stock	Flash point ≥ 23°C and ≤ 75°C	**CLP 1. OtherGO**
	Flash point > 75°C	**CLP 2. OtherGO**
Non-carcinogenic feed-stock	Flash point ≥ 23°C and ≤ 75°C	**CLP 3. OtherGO**
	Flash point > 75°C	**CLP 4. OtherGO**

OTHER GAS OILS		
EC #	**CAS #**	**Acceptable C&L permutations**
265-148-2	64742-46-7	CLP 1, CLP 2, CLP 3, CLP 4
265-182-8	64742-79-6	CLP 1, CLP 2, CLP 3, CLP 4
265-183-3	64742-80-9	CLP 1, CLP 2, CLP 3, CLP 4

CLP 1. OtherGO (Carcinogenic or unknown feed-stock; Flash point ≥ 23°C and ≤ 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3 *	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, thymus, liver	H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects.	based on the substance itself

* For the purpose of CLP gas oils, diesel and light heating oils having a flash point between ≥ 55°C and ≤ 75°C may be regarded as Category 3.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H350: May cause cancer.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).)

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

CLP 2. OtherGO (Carcinogenic or unknown feed-stock; Flash point > 75°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, thymus, liver	H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H350: May cause cancer.
H360FD: May damage fertility. May damage the unborn child.
H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).)

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

CLP 3. OtherGO (Non-carcinogenic feed-stock; Flash point ≥ 23°C and ≤ 75°C)

The following Note has been applied:

- Note N: The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 14: The classification as a specific target organ toxicant category 2; H373 (May cause damage to organs through prolonged or repeated exposure) needs not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3 *	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects.	based on the substance itself

* For the purpose of CLP gas oils, diesel and light heating oils having a flash point between ≥ 55°C and ≤ 75°C may be regarded as Category 3.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H360FD: May damage fertility. May damage the unborn child.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.

P203: Obtain, read and follow all safety instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).)

Notes:

Note N [The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

CLP 4. OtherGO (Non-carcinogenic feed-stock; Flash point > 75°C)

The following Note has been applied:

- Note N: The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 14: The classification as a specific target organ toxicant category 2; H373 (May cause damage to organs through prolonged or repeated exposure) needs not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive toxicity	Repr. 1B	H360FD: May damage fertility. May damage the unborn child.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H360FD: May damage fertility. May damage the unborn child.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P203: Obtain, read and follow all safety instructions before use.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice*.)
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P318: IF exposed or concerned, get medical advice.
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P340: Remove person to fresh air and keep comfortable for breathing.
P352: Wash with plenty of water/…
P361: Take off immediately all contaminated clothing.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container to … (in accordance with local/regional/national/international regulation (to be specified).)

Notes:

Note N [The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

HEAVY FUEL OIL COMPONENTS (HFO)

Definition / Domain: The domain of this category is defined as streams obtained as either distillates or residues from distillation and cracking processes and containing saturated, aromatic and olefinic hydrocarbons,

- Derived from crude petroleum
- Refinery processes
  - atmospheric distillation
  - residue distillation
  - thermal cracking
  - catalytic cracking
  - hydrotreatment / hydrodesulfurization
  - vacuum distillation
  - blending
- Boiling point range: 160 to >750°C.
- Carbon number range: >C8

The most common components are:

- Long residue: the residue from the atmospheric distillation of crude oil.
- Short residue: the residue from the vacuum distillation of crude oil.
- Thermal cracker or visbreaker residue: the residue from thermal cracking processes.
- Cat cracker slurry oil (clarified oil): a heavy fraction from a catalytic cracking.
- Thermally cracked or visbreaker gas oil: a middle distillate fraction from thermal cracker or visbreaker units.
- Vacuum gas oil: a heavy gas oil fraction (vacuum distillate) from the vacuum column.
- Cat cracker cycle oil: a middle distillate fraction from the catalytic cracking unit.
- Gas oil: a heavier middle distillate fraction from the atmospheric column.

Appendix 1 lists only those HFO substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. HFO**) must be applied.

C&L drivers	C&L permutation
Viscosity ≤ 20.5 mm²/s at 40°C	CLP 1. HFO
Viscosity > 20.5 mm²/s at 40°C	CLP 2. HFO

HEAVY FUEL OIL COMPONENTS		
EC #	CAS #	Acceptable C&L permutations
265-045-2	64741-45-3	CLP 1, CLP 2
265-058-3	64741-57-7	CLP 1, CLP 2
265-063-0	64741-61-3	CLP 1, CLP 2
265-064-6	64741-62-4	CLP 1, CLP 2
265-069-3	64741-67-9	CLP 1, CLP 2
265-076-1	64741-75-9	CLP 1, CLP 2
265-081-9	64741-80-6	CLP 1, CLP 2
265-082-4	64741-81-7	CLP 1, CLP 2
265-162-9	64742-59-2	CLP 1, CLP 2
265-181-2	64742-78-5	CLP 2
265-189-6	64742-86-5	CLP 1, CLP 2
269-777-3	68333-22-2	CLP 1, CLP 2

HEAVY FUEL OIL COMPONENTS		
EC #	CAS #	Acceptable C&L permutations
270-675-6	68476-33-5	CLP 1, CLP 2
270-796-4	68478-17-1	CLP 1, CLP 2
270-984-6	68512-62-9	CLP 1, CLP 2
271-384-7	68553-00-4	CLP 2
271-763-7	68607-30-7	CLP 1, CLP 2
272-184-2	68783-08-4	CLP 1, CLP 2
273-263-4	68955-27-1	CLP 1, CLP 2
274-684-6	70592-77-7	CLP 1, CLP 2
274-685-1	70592-78-8	CLP 1, CLP 2
292-658-2	90669-76-4	CLP 2
295-396-7	92045-14-2	CLP 2
295-511-0	92061-97-7	CLP 1, CLP 2
298-754-0	93821-66-0	CLP 1, CLP 2

CLP 1. HFO (Viscosity ≤ 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects by dermal route.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, thymus, liver	H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (acute/short-term):	Aquatic Acute 1	H400: Very toxic to aquatic life (M-Factor =1).	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects (M-Factor =1).	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H332: Harmful if inhaled.
H341: Suspected of causing genetic defects by dermal route.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects (M-Factor =1).

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

CLP 2. HFO (Viscosity > 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects by dermal route.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, thymus, liver	H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (acute/short-term):	Aquatic Acute 1	H400: Very toxic to aquatic life (M-Factor =1).	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects (M-Factor =1).	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H332: Harmful if inhaled.
H341: Suspected of causing genetic defects by dermal route.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H373: May cause damage to blood, thymus and liver through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects (M-Factor =1).

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

UNREFINED / ACID TREATED OILS (UATO)

Definition / Domain: The unrefined base oils, or vacuum distillate fractions, are complex aliphatic and aromatic hydrocarbon substances. They mostly comprise highly alkylated multi-ring structures and branched alkane constituents, along with some heteroatom (nitrogen, oxygen, sulphur) – containing species, including some gums and resins. The unrefined base oil fractions are subject to further refinery process (chemical or physical) steps to convert them into lubricating oils for commercial use. Treatment with sulphuric acid partially removes aromatics and sulphur-containing species, precipitates asphaltenes and gums, and improves colour and stability.

The UATO category domain is established by the refining processes by which the category members are produced, the predominant hydrocarbon classes present, the boiling point range and the carbon number range as follows.

- Derived from crude petroleum and/or natural gas condensates
- Refinery process
    - Produced by vacuum distillation of the residuum from atmospheric distillation
    - Vacuum distillation fractions with no further treatment (unrefined oils)
    - Vacuum distillate fractions with slight to moderate treatment with sulphuric acid to partially remove aromatics and heteroatom-containing species (acid treated oils)
    - Further treatment with sodium hydroxide (or some other base) to neutralize acid residues
- Hydrocarbon types: highly alkylated multi-ring structures, branched alkanes, aromatic hydrocarbons.
- Typical boiling range: 210°C to 800°C
- Typical carbon number range: C_{15} to C_{50}

Appendix 1 lists only those UATO substances with active registrations at the time of issuing this report.

Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. UATO**) must be applied.

C&L drivers	C&L permutation
Viscosity ≤ 20.5 mm²/s at 40°C	**CLP 1. UATO**
Viscosity > 20.5 mm²/s at 40°C	**CLP 2. UATO**

UNREFINED / ACID TREATED OILS		
EC #	**CAS #**	**Acceptable C&L permutations**
265-051-5	64741-50-0	CLP 1, CLP 2
265-052-0	64741-51-1	CLP 1, CLP 2

CLP 1. UATO (Viscosity ≤ 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects by dermal route.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1A	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus Route of exposure: Oral and dermal	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by oral and dermal routes.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H341: Suspected of causing genetic defects by dermal route
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by oral and dermal routes.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)

P331: Do NOT induce vomiting.

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1A.

CLP 2. UATO (Viscosity > 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects by dermal route.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1A	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus Route of exposure: Oral and dermal	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by oral and dermal routes.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

GHS09: environment

Hazard statements:

H341: Suspected of causing genetic defects by dermal route.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by oral and dermal routes.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1A.

HIGHLY REFINED BASE OILS (HRBO)

Definition / Domain: The domain of this category is established by the refining processes by which the category members are produced and the low level of poly-aromatic content present in the oils.

- Derived from crude petroleum or natural gas condensates
- Refinery processes
    - atmospheric distillation
    - hydrotreatment / hydrodesulfurization
    - acid treatment
    - oleum treatment

***N.B.**: some category members are subject to further intermediate processing such as chemical sweetening and/or chemical neutralisation to remove or convert residues of odorous sulphur compounds.*

- At a minimum, satisfies the requirements of the FDA 178.3620 B test elements:
    - UV Absorbance
    - Hot acid test
- Hydrocarbon types: saturated, naphthenic, iso-paraffinic
- Boiling point range: 218 to 800°C
- Carbon number range: predominantly C_{15} to C_{50}

Appendix 1 lists only those HRBO substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. HRBO**) must be applied.

C&L drivers	C&L permutation
Viscosity ≤ 20.5 mm²/s at 40°C	CLP 1. HRBO
Viscosity > 20.5 mm²/s at 40°C	CLP 2. HRBO

HIGHLY REFINED BASE OILS		
EC #	CAS #	EC name
232-455-8	8042-47-5	CLP 1, CLP 2

CLP 1. HRBO (Viscosity ≤ 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H304: May be fatal if swallowed and enters airways.

Precautionary statements:

P102: Keep out of reach of children. *(In case of consumer use P102 should be added on the label)* *****
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P405: Store locked up. *****
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)
***This P-statement is not automatically triggered by the classification and labelling rules for these substances, however based on its physical chemical properties having a viscosity ≤20.5 mm²/s @ 40°C it is advised when used in consumer products.**

CLP 2. HRBO (Viscosity > 20.5 mm²/s at 40°C)

The substance is not classified.

LUBRICANT BASE OILS (LBO)

Definition / Domain: The domain of this category is established by the refining processes by which the category members are produced, the predominant hydrocarbon classes present, the boiling point range and the carbon number range as follows:

- Derived from crude petroleum
- Refinery processes
    - vacuum distillation
    - atmospheric distillation
    - solvent extraction (phenol, furfural and N-methyl pyrrolidone)
    - solvent deasphalting (precipitation with propane)
    - solvent dewaxing (cracking, isomerisation or precipitation with methyl ethyl ketone)
    - catalytic dewaxing (isomerisation)
    - acid treatment (sulphuric acid or oleum)
    - hydrocracking (hydrogenation and cracking combined)
    - hydrotreatment / hydrodesulfurization
    - hydro finishing
    - clay treatment
    - iso-dewaxing
- Hydrocarbon types: aromatics, paraffins, naphthenics
- Boiling point range: 200ºC to 800ºC
- Carbon number range: predominantly C_{12} to C_{120}

Appendix 1 lists only those LBO substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. LBO**) must be applied.

C&L drivers		C&L permutation
IP 346 ≥ 3% w/w	Viscosity ≤ 20.5 mm²/s at 40°C	**CLP 1. LBO**
	Viscosity > 20.5 mm²/s at 40°C	**CLP 2. LBO**
IP 346 < 3% w/w	Viscosity ≤ 20.5 mm²/s at 40°C	**CLP 3. LBO**
	Viscosity > 20.5 mm²/s at 40°C	**CLP 4. LBO**

OTHER LUBRICANT BASE OILS		
EC #	**CAS #**	**Acceptable C&L permutations**
265-077-7	64741-76-0	CLP 1, CLP 3, CLP 4
265-090-8	64741-88-4	CLP 1, CLP 2, CLP 3, CLP 4
265-091-3	64741-89-5	CLP 3, CLP 4
265-096-0	64741-95-3	CLP 2, CLP 3, CLP 4
265-097-6	64741-96-4	CLP 2, CLP 4
265-101-6	64742-01-4	CLP 3, CLP 4
265-155-0	64742-52-5	CLP 2, CLP 3, CLP 4
265-156-6	64742-53-6	CLP 1, CLP 3, CLP 4
265-157-1	64742-54-7	CLP 2, CLP 3, CLP 4
265-158-7	64742-55-8	CLP 1, CLP 3, CLP 4
265-159-2	64742-56-9	CLP 1, CLP 3, CLP 4
265-160-8	64742-57-0	CLP 2, CLP 4
265-166-0	64742-62-7	CLP 3, CLP 4
265-169-7	64742-65-0	CLP 3, CLP 4
265-174-4	64742-70-7	CLP 3, CLP 4
265-176-5	64742-71-8	CLP 3, CLP 4
276-736-3	72623-85-9	CLP 3, CLP 4

OTHER LUBRICANT BASE OILS		
EC #	**CAS #**	**Acceptable C&L permutations**
276-737-9	72623-86-0	CLP 3, CLP 4
276-738-4	72623-87-1	CLP 3, CLP 4
278-012-2	74869-22-0	CLP 3, CLP 4

CLP 1. LBO (IP 346 ≥ 3% w/w; Viscosity ≤ 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child Route of exposure: Dermal	H361: Suspected of damaging fertility or the unborn child by dermal route.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus Route of exposure: Dermal	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by dermal route.	based on constituents based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child by dermal route.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by dermal route.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 2. LBO (IP 346 ≥ 3% w/w; Viscosity > 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child Route of exposure: Dermal	H361: Suspected of damaging fertility or the unborn child by dermal route.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus Route of exposure: Dermal	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by dermal route.	based on constituents based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child by dermal route.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by dermal route.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 3. LBO (IP 346 < 3% w/w; Viscosity ≤ 20.5 mm²/s at 40°C)

The following Note has been applied:

- Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3% of dimethyl sulphoxide extract as measured by IP 346 ('Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method' Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 8: The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H304: May be fatal if swallowed and enters airways.

Precautionary statements:

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Notes:

Note L [The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

CLP 4. LBO (IP 346 < 3% w/w; Viscosity > 20.5 mm²/s at 40°C)

The following Note has been applied:

- Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3% of dimethyl sulphoxide extract as measured by IP 346 ('Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method' Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 8: The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

The substance is not classified.

Notes:

Note L [The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

UNTREATED DISTILLATE AROMATIC EXTRACTS (UDAE)

Definition / Domain: Distillate Aromatic Extracts is the generic name for extracts of a vacuum distillate produced as by-products in the refining of lube base oils and waxes. Vacuum distillates (lubricating oil basestocks) are extracted with a solvent to selectively remove the aromatic compounds (especially 3-7 fused ring PAC). The solvent is then stripped from the resulting extract, and the remaining aromatic concentrate (aromatic extract) is the untreated distillate aromatic extract (UDAE). This may be further processed and the result is a treated DAE (TDAE), which are included in a separate category. UDAE substances are not intentional mixtures of chemicals but are complex combinations of hydrocarbon species.

The category domain is established by the refining processes by which the category members are produced, the predominant hydrocarbon classes present, the boiling point range and the carbon number range as follows:

- Derived from crude petroleum
- Refinery process:
    - atmospheric distillation
    - vacuum distillation
    - Solvent extraction of vacuum distillate fractions (without further processing)
- Hydrocarbon types: mostly alkylated PAC, naphthenic and iso-paraffinic
- Typical boiling point range: 250ºC to 640ºC
- Typical carbon number range: C_{15} to C_{50}

Appendix 1 lists only those UDAE substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. UDAE**) must be applied.

C&L drivers	C&L permutation
Viscosity ≤ 20.5 mm²/s at 40°C	**CLP 1. UDAE**
Viscosity > 20.5 mm²/s at 40°C	**CLP 2. UDAE**

UNTREATED DISTILLATE AROMATIC EXTRACTS		
EC #	**CAS #**	**Acceptable C&L permutations**
265-103-7	64742-04-7	CLP 1, CLP 2
265-104-2	64742-05-8	CLP 1, CLP 2

CLP 1. UDAE (Viscosity ≤ 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects by dermal route.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H341: Suspected of causing genetic defects by dermal route.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 2. UDAE (Viscosity > 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects by dermal route.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

GHS09: environment

Hazard statements:

H341: Suspected of causing genetic defects by dermal route.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

TREATED DISTILLATE AROMATIC EXTRACTS (TDAE)

Definition / Domain: Distillate Aromatic Extracts is the generic name for extracts of a vacuum distillate produced as by-products in the refining of lube base oils and waxes. Vacuum distillates (lubricating oil base stocks) are extracted with a solvent to selectively remove the aromatic compounds (especially 3-7 fused ring PAC). The solvent is then stripped from the resulting extract, and the remaining aromatic concentrate (aromatic extract) is the untreated distillate aromatic extract (UDAE), which are included in a separate category. The distillate aromatic extract may be further processed and the result is a treated DAE (TDAE) produced to meet physical-chemical and technical specifications, rather than chemical composition. TDAE substances are not intentional mixtures of chemicals but are complex combinations of hydrocarbon species.

The category domain of TDAE substances is established by the refining processes by which the category members are produced, the predominant hydrocarbon classes present, the boiling point range and the carbon number range as follows:

- Derived from crude petroleum
- Refinery process:
  - Solvent extraction of vacuum distillate fractions and further processing.
- Hydrocarbon types: mostly alkylated PAC, naphthenic and iso-paraffinic. TDAE subjected to hydrotreatment may significantly decrease levels of PAC contained in them.
- Typical boiling point range: 250°C to 640°C
- Typical carbon number range: C_{20} to C_{50}

Appendix 1 lists only those TDAE substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. TDAE**) must be applied.

C&L drivers		C&L permutation
IP 346 ≥ 3% w/w	Viscosity ≤ 20.5 mm²/s at 40°C	CLP 1. TDAE
	Viscosity > 20.5 mm²/s at 40°C	CLP 2. TDAE
IP 346 < 3% w/w	Viscosity ≤ 20.5 mm²/s at 40°C	CLP 3. TDAE
	Viscosity > 20.5 mm²/s at 40°C	CLP 4. TDAE

TREATED DISTILLATE AROMATIC EXTRACTS		
EC #	CAS #	Acceptable C&L permutations
272-180-0	68783-04-0	CLP 1, CLP 2, CLP 3, CLP 4

CLP 1. TDAE (IP 346 ≥ 3% w/w, Viscosity ≤ 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.	based on constituents based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 2. TDAE (IP 346 ≥ 3% w/w, Viscosity > 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.	based on constituents based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 3. TDAE (IP 346 < 3% w/w, Viscosity ≤ 20.5 mm²/s at 40°C)

The following Note has been applied:

- Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3% of dimethyl sulphoxide extract as measured by IP 346 ('Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method' Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 8: The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H304: May be fatal if swallowed and enters airways.

Precautionary statements:

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (… *in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.

Notes:

Note L [The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

CLP 4. TDAE (IP 346 < 3% w/w, Viscosity > 20.5 mm²/s at 40°C)

The following Note has been applied:

- Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3% of dimethyl sulphoxide extract as measured by IP 346 ('Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method' Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 8: The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

The substance is not classified.

Notes:

Note L [The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

RESIDUAL AROMATIC EXTRACTS (RAE)

Definition / Domain: The domain of this category is established by the refining process by which the category members are produced and the boiling point range and the carbon number range as follows:

- Derived from crude petroleum
- Refinery processes
  - Vacuum distillation
  - Propane extraction (deasphalting)
  - Solvent extraction
- Hydrocarbon types: aromatics, paraffins.
- Boiling point range: >380°C
- Carbon number range: predominantly > C_{25}

Appendix 1 lists only those RAE substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. RAE**) must be applied.

C&L drivers	C&L permutation
Mutagenicity Index ≥ 0.4	CLP 1. RAE
Mutagenicity Index < 0.4	CLP 2. RAE

RESIDUAL AROMATIC EXTRACTS		
EC #	CAS #	Acceptable C&L permutations
265-110-5	64742-10-5	CLP 1, CLP 2

CLP 1. RAE (Mutagenicity Index ≥ 0.4)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Carcinogenicity:	Carc. 2	H351: Suspected of causing cancer.	based on constituents based on the substance itself

Labelling

Signal word: Warning

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H351: Suspected of causing cancer.

Precautionary statements:

P201: Obtain special instructions before use.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

CLP 2. RAE (Mutagenicity Index < 0.4)

The following Oil Industry Notes (OIN) have been applied:

- OIN 10: The classification as a carcinogen needs not apply if it can be shown that the substance has mutagenicity index (MI) less than 0.4 as measured by the test method described in ASTM E 1687-04 or if another predictive test demonstrates the substance is not a carcinogen.

Classification and labelling according to CLP / GHS

The substance is not classified.

SLACK WAXES (SLACKWAX)

Definition / Domain: The domain of this category is established by the refining processes by which the category members are produced, the predominant hydrocarbon classes present, the melting point range and the carbon number range as follows:

- Derived from vacuum distilled fractions and separated as a semi-solid by chilling
- Refinery processes
    - atmospheric distillation
    - vacuum distillation
    - hydrotreatment / hydrodesulfurization
    - solvent extraction
    - solvent dewaxing
    - clay treatment
    - chilling

***N-B.**: some category members are subject to further intermediate processing such as de-oiling or treatment with acid, clay, active carbon or hydrogenation but without changing their hydrocarbon composition significantly.*

- Hydrocarbon types: The major components of all slack waxes are branched and straight chain paraffins and naphthenes (cycloparaffins), which normally account for at least 85% by volume of a wax process stream. Aromatic hydrocarbons, mainly alkylbenzenes and alkylnaphthalenes will not normally exceed 15% by volume of slack wax streams. The boiling points of the hazardous, 3 to 7 fused-ring polycyclic aromatic hydrocarbons (PAHs) are in the boiling range of the petroleum waxes, but they are removed by solvent extraction before chilling and wax separation.
- Typical melting point range: predominantly 43°C to 76°C
- Typical boiling point range: predominantly 300°C to 800°C
- Typical carbon number range: predominantly C_{12} to C_{120}

Appendix 1 lists only those Slackwax substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. Slackwax**) must be applied.

C&L drivers	C&L permutation
Carcinogenic or unknown feed-stock	CLP 1. Slackwax
Non-carcinogenic feed-stock	CLP 2. Slackwax

SLACK WAXES		
EC #	CAS #	Acceptable C&L permutations
265-165-5	64742-61-6	CLP 2
292-660-3	90669-78-6	CLP 2
295-523-6	92062-09-4	CLP 2

CLP 1. Slackwax (Carcinogenic or unknown feed-stock)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child Route of exposure: Dermal	H361d: Suspected of damaging the unborn child by dermal route.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus Route of exposure: Oral and dermal	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by oral and dermal route.	based on constituents based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H350: May cause cancer.
H361d: Suspected of damaging the unborn child by dermal route.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by oral and dermal route.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 2. Slackwax (Non-carcinogenic feed-stock)

The following Note has been applied:

- Note N: The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 8: The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

The substance is not classified.

Notes:

Note N [The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

PARAFFIN AND HYDROCARBON WAXES (PARAFFINWAX)

Definition / Domain: The domain of this category is established by the process by which the category members are produced, the predominant hydrocarbon classes present, the melting point range and the carbon number range as follows:

- Derived from vacuum distilled fractions and separated as a solid by chilling.
- Refinery processes
    - atmospheric distillation
    - vacuum distillation
    - hydrotreatment / hydrodesulfurization
    - solvent extraction
    - chilling
    - wax crystallization
    - clay treatment

***Note**: some category members are subject to further processing such as de-oiling or treatment with acid, clay, active carbon or hydrogenation but without changing their hydrocarbon composition significantly.*

- Hydrocarbon types: the major components of all paraffin and hydrocarbon waxes are branched and straight chain paraffins and naphthenes (cycloparaffins), which normally account for at least 85% by volume of a wax process stream. Aromatic hydrocarbons, mainly alkylbenzenes and alkylnaphthalenes will not normally exceed 15% by volume of paraffin and hydrocarbon wax streams. The boiling point range of paraffin and hydrocarbon waxes is such that components of specific toxicological concern such as benzene (boiling point 80°C) and n-hexane (boiling point 69°C) are typically not present. The boiling points of the hazardous, 3 to 7 fused-ring polycyclic aromatic hydrocarbons (PAHs) are in the boiling range of the paraffin and hydrocarbon waxes, but they are removed by solvent extraction before chilling and wax separation.
- Typical melting point range: predominantly 43°C to 95°C
- Typical boiling point range: predominantly 300°C to 800°C
- Typical carbon number range: predominantly C_{12} to C_{85}

Appendix 1 lists only those Paraffinwax substances with active registrations at the time of issuing this report.

There is one single C&L Permutation for Paraffinwax substances.

PARAFFIN AND HYDROCARBON WAXES		
EC #	**CAS #**	**Acceptable C&L permutations**
232-315-6	8002-74-2	CLP 1
264-038-1	63231-60-7	CLP 1
265-144-0	64742-42-3	CLP 1
265-145-6	64742-43-4	CLP 1
265-154-5	64742-51-4	CLP 1
265-163-4	64742-60-5	CLP 1

CLP 1. Paraffinwax

Classification and labelling according to CLP / GHS

Substances listed above are not classified.

FOOTS OILS (FOOTSOIL)

Definition / Domain: The domain of this category is established by the refining processes by which the category members are produced, the predominant hydrocarbon classes present and the carbon number range as follows:

- Derived from crude petroleum which is refined by atmospheric and vacuum distillation.
- Refinery processes
  - atmospheric distillation
  - vacuum distillation
  - hydrotreatment / hydrodesulfurization
  - acid treatment (sulphuric or silicic acid)
  - clay treatment
  - de-oiling of slack waxes
  - wax crystallization
  - activated carbon
- Hydrocarbon types: aromatics, paraffins, naphthenes
- Typical melting point range: predominantly -60°C to 49°C (pour point)
- Typical boiling point range: predominantly >158°C to 800°C (read-across to LBO substances)
- Typical carbon number range: predominantly C_{20} to C_{50}

Appendix 1 lists only those Footsoil substances with active registrations at the time of issuing this report.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. Footsoil**) must be applied.

C&L drivers		C&L permutation
IP 346 ≥ 3% w/w	Viscosity ≤ 20.5 mm²/s at 40°C	CLP 1. Footsoil
	Viscosity > 20.5 mm²/s at 40°C	CLP 2. Footsoil
IP 346 < 3% w/w	Viscosity ≤ 20.5 mm²/s at 40°C	CLP 3. Footsoil
	Viscosity > 20.5 mm²/s at 40°C	CLP 4. Footsoil

FOOTS OILS		
EC #	CAS #	Acceptable C&L permutations
265-171-8	64742-67-2	CLP 3, CLP 4
295-394-6	92045-12-0	CLP 3, CLP 4

CLP 1. Footsoil (IP 346 ≥ 3% w/w; Viscosity ≤ 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.	based on constituents based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 2. Footsoil (IP 346 ≥ 3% w/w; Viscosity > 20.5 mm²/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: Adrenals, bone marrow, liver, lymph nodes, kidney, stomach, thymus	H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.	based on constituents based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H350: May cause cancer.
H361d: Suspected of damaging the unborn child.
H372: Causes damage to adrenals, bone marrow, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 3. Footsoil (IP 346 < 3% w/w; Viscosity ≤ 20.5 mm²/s at 40°C)

The following Note has been applied:

- Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3% of dimethyl sulphoxide extract as measured by IP 346 ('Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method' Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 8: The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H304: May be fatal if swallowed and enters airways.

Precautionary statements:

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (… *in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Notes:

Note L [The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

CLP 4. Footsoil (IP 346 < 3% w/w; Viscosity > 20.5 mm²/s at 40°C)

The following Note has been applied:

- Note L: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3% of dimethyl sulphoxide extract as measured by IP 346 ('Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method' Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 8: The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

The substance is not classified.

Notes:

Note L [The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

PETROLATUMS (PETROLATUM)

Definition / Domain: The domain of this category is established by the process by which the category members are produced, the predominant hydrocarbon classes present, the melting point range and the carbon number range as follows:

- Derived from crude petroleum
- Refinery processes
    - distillation (vacuum, residue)
    - solvent extraction (raffinate phase)
    - solvent deasphalting (oil phase)
    - solvent dewaxing (wax phase)

***Note**: While many combinations of process operations may be involved in the production of a substance, some are relevant to substance identity and must be indicated. Others are not considered relevant to substance identity and are therefore omitted to avoid needlessly splitting substance identities based on minor differences in production process details. The following guidelines are therefore followed when listing relevant process operations.*

- Operations prior to a conversion process, involving chemical reaction or blending to a specification, are not considered relevant.
- Distillation operations prior to the final separation are not considered relevant.
- The pressure condition of the final distillation step, i.e., atmospheric pressure or vacuum, is considered relevant and indicated to qualify that distillation.
- For all physical separation processes including distillation, solvent extraction and crystallization, the separation product is considered relevant and indicated.
- The order of operations indicated is not considered relevant.

Hydrocarbon types: the major components of all paraffin and hydrocarbon waxes are branched and straight chain paraffins and naphthenes (cycloparaffins), which normally account for at least 85% by volume of a wax process stream. Aromatic hydrocarbons, mainly alkylbenzenes and alkylnaphthalenes will not normally exceed 15% by volume of paraffin and hydrocarbon wax streams. The boiling point range of paraffin and hydrocarbon waxes is such that components of specific toxicological concern such as benzene (boiling point 80°C) and n-hexane (boiling point 69°C) are typically not present. The boiling points of the hazardous, 3 to 7 fused-ring polycyclic aromatic hydrocarbons (PAHs) are in the boiling range of the paraffin and hydrocarbon waxes, but they are removed by solvent extraction before chilling and wax separation.

- Typical melting point range: predominantly 36°C to 71°C
- Typical boiling point range: predominantly ≥300°C
- Typical carbon number range: predominantly C_{12} to C_{85}

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. Petrolatum**) must be applied.

C&L drivers	C&L permutation
Carcinogenic or unknown feed-stock	CLP 1. Petrolatum
Non-carcinogenic feed-stock	CLP 2. Petrolatum

PETROLATUMS		
EC #	CAS #	Acceptable C&L permutations
232-373-2	8009-03-8	CLP 2

CLP 1. Petrolatum (Carcinogenic or unknown feed-stock)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child Route of exposure: dermal	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.	based on constituents based on the substance itself
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 1 Affected organs: adrenals, bone marrow, blood, liver, lymph nodes, kidney, stomach, thymus Route of exposure: dermal, oral	H372: Causes damage to adrenals, bone marrow, blood, liver, lymph nodes, kidney, stomach, thymus through prolonged or repeated exposure by dermal, oral routes.	based on constituents based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS08: health hazard

Hazard statements:

H350: May cause cancer.
H361d: Suspected of damaging the unborn child by dermal route.
H372: Causes damage to adrenals, bone marrow, blood, liver, lymph nodes, kidney, stomach and thymus through prolonged or repeated exposure by oral and dermal routes.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 2. Petrolatum (Non-carcinogenic feed-stock)

The following Note has been applied:

- Note N: The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 8: The classifications as a reproductive toxicant category 2; H361d (Suspected of damaging the unborn child) and specific target organ toxicant category 1; H372 (Causes damage to organs through prolonged or repeated exposure) need not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

The substance is not classified.

Notes:

Note N [The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

BITUMENS (BITUMEN)

Definition / Domain: The domain of this category is established by the process by which the category members are produced, the predominant hydrocarbon classes present, the melting point range and the carbon number range as follows:

- Derived from crude petroleum
- Refinery processes
  - distillation (vacuum, residue)
  - solvent deasphalting
  - thermal cracking
- Hydrocarbon types: asphaltenes, aromatics, saturated.
- Typical boiling point range: >320°C
- Typical carbon number range: predominantly greater than C_{25} but with the bulk of the material having carbon numbers greater than C_{50} and up to C_{80}

Appendix 1 lists only those Bitumen substances with active registrations at the time of issuing this report.

There is one single C&L Permutation for Bitumen substances.

BITUMENS		
EC #	**CAS #**	**Acceptable C&L permutations**
232-490-9	8052-42-4	CLP 1
265-057-8	64741-56-6	CLP 1
295-518-9	92062-05-0	CLP 1

CLP 1. Bitumen

Classification and labelling according to CLP / GHS

Substances listed above are not classified.

OXIDIZED ASPHALT (OXIASPH)

Definition / Domain: Oxidized asphalt is derived from crude petroleum. It is a complex black solid, obtained by blowing air through heated petroleum residues, or the raffinate from a deasphalting process with or without a catalyst. The process is principally one of oxidative condensation which increases the molecular weight.

- Derived from crude petroleum
- Refinery processes:
  - distillation (vacuum, residue)
  - solvent deasphalting
  - oxidization
- Hydrocarbon types: Asphaltenes, saturated, aromatics.
- Typical boiling point range: > 308°C
- Typical carbon number range: Predominantly greater than C_{12} but with the bulk of the material having carbon numbers greater than C_{30} and up to C_{101}

There is one single C&L Permutation for OxiAsph.

OXIDIZED ASPHALT		
EC #	**CAS #**	**Acceptable C&L permutations**
265-196-4	64742-93-4	CLP 1

CLP 1. OxiAsph

Classification and labelling according to CLP / GHS

The substance is not classified.

SULFUR (SULFUR)

Definition / Domain: Most sulfur is produced in desulfurization processes of oil refinery streams, natural gas, gas from coke manufacture, synthesis gas or biogas, where the sulfur is extracted in the form of hydrogen sulfide which is subsequently converted to elemental sulfur. These processes provide sulfur in the form of a mono-constituent substance, i.e. with a concentration of 80% weight/weight or more. Some of these processes, such as the Claus process, yield sulfur with purity in excess of 99%.

As shown in **Appendix 1**, Sulfur is defined by a single EC number (231-722-6).

There is one single C&L permutation for Sulfur.

SULFUR		
EC #	**CAS #**	**Acceptable C&L permutations**
231-722-6	7704-34-9	CLP 1

CLP 1. Sulfur

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself

Labelling

Signal word: Warning

Hazard pictogram:

GHS07: exclamation mark

Hazard statements:

H315: Causes skin irritation.

Precautionary statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P302 + P352: IF ON SKIN: Wash with plenty of water/… (*…Manufacturer/supplier may specify a cleansing agent if appropriate, or may recommend an alternative agent in exceptional cases if water is clearly inappropriate.*)
P332 + P313: If skin irritation occurs: Get medical advice/attention.

RENEWABLE DEOXYGENATE DIESEL (RENEWDD)

Definition / Domain: RenewDD is a complex hydrocarbon UVCB manufactured from bio-renewable feeds with substance identity partially defined by the manufacturing process.

The substance is manufactured from renewable feedstocks by means of the following operations:

- hydrodeoxygenation

The substance is also characterised by the following properties:

- Hydrocarbon types: saturated and aromatic
- Typical boiling point range: approximately 270°C to 325°C
- Typical carbon number range: predominantly C_{10} to C_{29}

As shown in **Appendix 1**, RenewDD is defined by a single EC number (951-915-5)

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. RenewDD**) must be applied.

C&L drivers		C&L permutation
Non-carcinogenic feed-stock	Flash point ≥ 23°C and ≤ 75°C	**CLP 1. RenewDD**
	Flash point > 75°C	**CLP 2. RenewDD**

RENEWABLE DEOXYGENATE DIESEL		
EC #	**CAS #**	**Acceptable C&L permutations**
951-915-5		CLP 1, CLP 2

CLP 1. RenewDD (Non-carcinogenic feed-stock; Flash point ≥ 23°C and ≤ 75°C)

The following Note has been applied:

- Note N: The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 14: The classification as a specific target organ toxicant category 2; H373 (May cause damage to organs through prolonged or repeated exposure) needs not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3 *	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

* For the purpose of CLP gas oils, diesel and light heating oils having a flash point between ≥ 55°C and ≤ 75°C may be regarded as Category 3.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (…*Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Notes:

Note N [The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

CLP 2. RenewDD (Non-carcinogenic feed-stock; Flash point > 75°C)

The following Note has been applied:

- Note N: The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

The following Oil Industry Notes (OIN) have been applied:

- OIN 14: The classification as a specific target organ toxicant category 2; H373 (May cause damage to organs through prolonged or repeated exposure) needs not apply if the substance is not classified as carcinogenic.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P261: Avoid breathing dust/fume/gas/mist/vapours/spray. (*Manufacturer/supplier to specify applicable conditions.*)
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Notes:

Note N [The harmonised classification as a carcinogen applies unless the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen, in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.]

SOLVENT NAPHTHA (SNAP)

Definition / Domain: This substance is a complex hydrocarbon UVCB manufactured from crude oil or natural gas condensates with substance identity partially defined by the manufacturing process, the boiling point range and the carbon number range as follows:

- Derived from crude oil and/or natural gas condensates by means of the following operations:
  - Catalytic reforming
  - Distillation (atmospheric, distillate)
- Hydrocarbon types: saturated and aromatics
- Typical boiling point range: approximately 90°C - 320°C
- Typical carbon number range: predominantly C_9 to C_{22}

As shown in Appendix 1, Solvent Naphtha is defined by a single EC number (265-198-5)

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 3. SNAP**) must be applied.

C&L drivers	C&L permutation
Cumene <0.1% w/w; Flashpoint ≥ 23°C and ≤ 60°C	**CLP 1. SNAP**
Cumene <0.1% w/w; Flashpoint > 60°C	**CLP 2. SNAP**
Cumene ≥ 0.1% w/w; Flashpoint ≥ 23°C and ≤ 60°C	**CLP 3. SNAP**
Cumene ≥ 0.1% w/w; Flashpoint > 60°C	**CLP 4. SNAP**

SOLVENT NAPHTHA		
EC #	**CAS #**	**Acceptable C&L permutations**
265-198-5	64742-94-5	CLP 1, CLP 2, CLP 3, CLP 4

CLP 1. SNAP (Cumene <0.1% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

The following Oil Industry Notes (OIN) have been applied:

- OIN 16: The classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102: Keep out of reach of children. *(In case of consumer use P102 should be added on the label)*
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

For use by Consumers in lamp oils, container labels should be marked as follows: Keep lamps filled with this liquid out of the reach of children. Just a sip of lamp oil – or even sucking the wick of lamps may lead to life-threatening lung damage.

For use by Consumers in grill lighters, container labels should be marked as follows: Just a sip of grill lighter may lead to life-threatening lung damage.

CLP 2. SNAP (Cumene <0.1% w/w; Flashpoint > 60°C)

The following Oil Industry Notes (OIN) have been applied:

- OIN 16: The classification as a carcinogen applies unless it can be shown that the substance contains less than 0.1% w/w cumene (EINECS No 202-704-5), in which case a classification in accordance with Title II of CLP Regulation shall be performed also for that hazard class.

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102: Keep out of reach of children. *(In case of consumer use P102 should be added on the label)*
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

For use by Consumers in lamp oils, container labels should be marked as follows: Keep lamps filled with this liquid out of the reach of children. Just a sip of lamp oil – or even sucking the wick of lamps may lead to life-threatening lung damage.

For use by Consumers in grill lighters, container labels should be marked as follows: Just a sip of grill lighter may lead to life-threatening lung damage.

CLP 3. SNAP (Cumene ≥ 0.1% w/w; Flashpoint ≥ 23°C and ≤ 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

CLP 4. SNAP (Cumene ≥ 0.1% w/w; Flashpoint > 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.

Additional labelling requirements:

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

CO-PROCESSED GAS OIL FROM PLANT/ANIMAL ORIGIN (CPGOAV)

Definition / Domain: This substance is a complex hydrocarbon UVCB manufactured from crude oil or natural gas condensates, together with hydrocarbons derived from crude oil and/or natural gas condensate and renewable feedstocks. The substance identity is partially defined by the manufacturing process.

- Derived from renewable feedstocks, crude petroleum or natural gas condensates
- Refinery processes
  - atmospheric distillation
  - hydrotreatment / hydrodeoxygenation
- Hydrocarbon types: saturated (linear, cyclic and branched), aromatics
- Typical boiling point range: approximately 160°C - 360°C
- Typical carbon number range: predominantly C_9 to C_{26}

As shown in **Appendix 1,** CPGOAV is defined by a single EC number (941-364-9).

There is one single C&L permutation for CPGOAV.

CPGOAV		
EC #	**CAS #**	**Acceptable C&L permutations**
941-364-9		CLP 1

CLP 1. CPGOAV

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 2 Route of exposure: dermal	H351: Suspected of causing cancer by dermal route	based on constituents based on the substance itself
Specific target organ toxicity – repeated exposure:	STOT Rep. Exp. 2 Affected organs: Thymus, Liver, Bone marrow Route of exposure: dermal	H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure by dermal route.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H351: Suspected of causing cancer by dermal route.
H373: May cause damage to thymus, liver, bone marrow through prolonged or repeated exposure by dermal route.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/…
P331: Do NOT induce vomiting.

CO-PROCESSED (THERMAL CRACKING) GAS OIL FROM WASTE PLASTICS (CPGOPW)

Definition / Domain: This substance is a complex hydrocarbon UVCB manufactured from crude oil or natural gas condensates together with hydrocarbons derived from crude oil and/or natural gas condensate and waste plastics. The substance identity is partially defined by the manufacturing process.

- Derived from crude oil and/or natural gas condensate and waste plastics.
- Refinery processes
  - atmospheric distillation
  - depolymerisation
- Hydrocarbon types: branched, linear and cyclic alkanes, alkenes and aromatic hydrocarbons
- Typical boiling point range: approximately 99°C - 748°C
- Typical carbon number range: predominantly C_{11} to C_{72}

As shown in **Appendix 1**, CPGOPW is defined by a single EC number (955-454-0).

There is one single C&L permutation for CPGOPW

CPGOPW		
EC #	**CAS #**	**Acceptable C&L permutations**
955-454-0		CLP 1

CLP 1. CPGOPW (Viscosity > 20.5 mm^2/s at 40°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Germ cell mutagenicity:	Muta. 2 Route of exposure: dermal	H341: Suspected of causing genetic defects.	based on the substance itself
Reproductive Toxicity:	Repr. 2 Specific effect: Unborn child	H361d: Suspected of damaging the unborn child	based on the substance itself
Carcinogenicity:	Carc. 1B	H350: May cause cancer	based on constituents based on the substance itself
Specific target organ toxicity – repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, thymus, liver	H373: May cause damage to blood, thymus, liver, through prolonged or repeated exposure	based on constituents based on the substance itself
Hazards to the aquatic environment (acute/short-term):	Aquatic Acute 1	H400: Very toxic to aquatic life.	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 1	H410: Very toxic to aquatic life with long lasting effects.	based on the substance itself
M-Factor acute: 1			
M-Factor chronic: 1			

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H332: Harmful if inhaled.
H341: Suspected of causing genetic defects.
H350: May cause cancer
H361d: Suspected of damaging the unborn child
H373: May cause damage to blood, thymus, liver, through prolonged or repeated exposure.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray. *(Manufacturer/supplier to specify applicable conditions.)*
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection. *(Manufacturer/supplier to specify type of equipment.)*

P308 + P313: IF exposed or concerned: Get medical advice/attention.

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.

Restricted to professional users due to classification as carcinogenic Category 1B, except for fuel uses.

CO-PROCESSED DIESEL/GAS OIL FROM THERMALLY CRACKED PLASTICS (CPGOTP)

Definition / Domain: This substance is a complex hydrocarbon UVCB manufactured from crude oil or natural gas condensates together with hydrocarbons derived from crude oil and/or natural gas condensate and thermally cracked plastics. The substance identity is partially defined by the manufacturing process.

- Derived from crude oil and/or natural gas condensate and thermally cracked plastics.
- Refinery processes
  - atmospheric distillation
  - hydrotreatment / hydrodeoxygenation
- Hydrocarbon types: Cyclic, linear, branched alkanes, aromatic hydrocarbons
- Typical boiling point: 269.4°C
- Typical carbon number range: predominantly C_6 to C_{26}

As shown in **Appendix 1**, CPGOTP is defined by a single EC number (941-803-4).

There is one single C&L permutation for CPGOTP.

CPGOTP		
EC #	**CAS #**	**Acceptable C&L permutations**
941-803-4		CLP 1. CPGOTP

CLP 1. CPGOTP

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.	based on the substance itself
Acute toxicity - inhalation:	Acute Tox. 4	H332: Harmful if inhaled.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Carcinogenicity:	Carc. 2	H351: Suspected of causing cancer	based on constituents based on the substance itself
Specific target organ toxicity – repeated exposure:	STOT Rep. Exp. 2 Affected organs: Thymus, Liver, Bone marrow Route of exposure: dermal	H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure by dermal route.	based on constituents based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H332: Harmful if inhaled.
H351: Suspected of causing cancer.
H373: May cause damage to thymus, liver and bone marrow through prolonged or repeated exposure by dermal route.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… *(…Manufacturer/supplier to specify the appropriate source of emergency medical advice.)*
P331: Do NOT induce vomiting.

CO-PROCESSED (HYDROTREATED) NAPHTHA FROM PLANT/ANIMAL ORIGIN (CPNAV)

Definition / Domain: This substance is a complex hydrocarbon UVCB manufactured from crude oil or natural gas condensates together with hydrocarbons derived from crude oil and/or natural gas condensate and animal fats/vegetable oils. The substance identity is partially defined by the manufacturing process.

- Derived from crude oil and/or natural gas condensate and animal fat/vegetable oils.
- Refinery processes
  - atmospheric distillation
  - hydrotreatment / hydrodeoxygenation
  - catalytic cracking
- Hydrocarbon types: alkanes, alkenes, paraffins, aromatics
- Typical boiling point range: approximately 27°C - 195°C
- Typical carbon number range: predominantly C_4 to C_{12}

As shown in **Appendix 1**, CPNAV is defined by a single EC number (941-381-1).

There is one single C&L permutation for CPNAV.

CPNAV		
EC #	**CAS #**	**Acceptable C&L permutations**
941-381-1		CLP 1. CPNAV

CLP 1. CPNAV

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for Classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects	based on constituents based on the substance itself
Carcinogenicity:	Carc. 1A	H350: May cause cancer	based on constituents based on the substance itself
Specific target organ toxicity – single exposure:	STOT Single. Exp. 3 Affected organs: Central nervous system Route of exposure: inhalation	H336: May cause drowsiness or dizziness	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection. *(Manufacturer/supplier to specify type of equipment.)*
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… *(…Manufacturer/supplier to specify the appropriate source of emergency medical advice.)*
P331: Do NOT induce vomiting.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Additional labelling:

Restricted to professional uses due to classification as mutagenic Category 1B and carcinogenic Category 1A, except for fuel uses.

CO-PROCESSED NAPHTHA FROM THERMALLY CRACKED PLASTICS (CPNTP)

Definition / Domain: This substance is a complex hydrocarbon UVCB manufactured from crude oil or natural gas condensates together with hydrocarbons derived from crude oil and/or natural gas condensate and thermally cracked plastics. The substance identity is partially defined by the manufacturing process.

- Derived from crude oil and/or natural gas condensate and thermally cracked plastics.
- Refinery processes:
  - Atmospheric distillation
  - Hydrotreatment / hydrodeoxygenation
- Hydrocarbon types: branched, linear and cyclic alkanes and olefins, aromatic hydrocarbons
- Typical boiling point: 97.4 ºC
- Typical carbon number range: predominantly C_4 to C_{10}

As shown in **Appendix 1**, CPNTP is defined by a single EC number (941-806-0).

There is one single C&L permutation for CPNTP.

CPNTP		
EC #	**CAS #**	**Acceptable C&L permutations**
941-806-0		CLP 1. CPNTP

CLP 1. CPNTP

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement	Reason for classification
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.	based on the substance itself
Skin corrosion / irritation:	Skin Irrit. 2	H315: Causes skin irritation.	based on the substance itself
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.	based on the substance itself
Reproductive Toxicity:	Repr. 2	H361: Suspected of damaging fertility or the unborn child.	based on the substance itself
Germ cell mutagenicity:	Muta. 1B	H340: May cause genetic defects.	based on the substance itself
Carcinogenicity:	Carc. 1A	H350: May cause cancer.	based on constituents based on the substance itself
Specific target organ toxicity – single exposure:	STOT Single. Exp. 3 Affected organs: Central nervous system Route of exposure: inhalation	H336: May cause drowsiness or dizziness	based on the substance itself
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.	based on the substance itself

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
(Manufacturer/supplier to specify type of equipment.)
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… *(…Manufacturer/supplier to specify the appropriate source of emergency medical advice.)*
P331: Do NOT induce vomiting.

Additional labelling:

Restricted to professional uses due to classification as mutagenic Category 1B and carcinogenicity Category 1A except for fuel uses.

APPENDIX 4: CRUDE OILS (CRUDEOIL)

Definition / Domain: Raw petroleum extracted in its natural state from the ground is a complex combination of hydrocarbons containing predominantly aliphatic, alicyclic, and aromatic hydrocarbons within a carbon number range from C4 to C60+. It may also contain small amounts of nitrogen, oxygen, and sulphur compounds. It may also contain parts-per-million of organometallic complexes, especially of nickel and vanadium, and dissolved gases, such as hydrogen sulfide. Similar constituents are present in all Crude oil, but their proportions can vary widely depending on the source.

As shown in **Appendix 1**, in spite of the complex composition, Crude oil is assigned a single EC number (232-298-5); if not chemically modified, it is exempt from REACH registration but still subject to CLP notification. Therefore, there is no registration dossier available and the permutations indicated below are retrieved from the CLP notifications submitted to ECHA, available at ECHA's website.

The Table below should be used to find the applicable C&L permutation according to the values of the relevant C&L drivers determined by each manufacturer/supplier; in the absence of information on the C&L drivers, the worst-case classification (permutation **CLP 1. Crudeoil**) must be applied.

C&L drivers			C&L permutation
Viscosity ≤ 20.5 mm²/s at 40°C	Flash point < 23°C	Initial boiling point ≤ 35°C	CLP 1. Crudeoil
		Initial boiling point > 35°C	CLP 2. Crudeoil
	Flash point ≥ 23°C and ≤ 60°C		CLP 3. Crudeoil
	Flash point > 60°C		CLP 4. Crudeoil
Viscosity > 20.5 mm²/s at 40°C	Flash point < 23°C	Initial boiling point ≤ 35°C	CLP 5. Crudeoil
		Initial boiling point > 35°C	CLP 6. Crudeoil
	Flash point ≥ 23°C and ≤ 60°C		CLP 7. Crudeoil
	Flash point > 60°C		CLP 8. Crudeoil

Due to the variability of crude oil composition, the environmental toxicity may differ from that given below; therefore, crude oils can be classified using specific experimental data on the actual type of crude oil under consideration.

CRUDE OILS		
EC #	CAS #	Recommended C&L permutations
232-298-5	8002-05-9	CLP 1, CLP 2, CLP 3, CLP 4, CLP 5, CLP 6, CLP 7, CLP 8

CLP 1. Crudeoil (Viscosity ≤ 20.5 mm²/s at 40°C; Flash point < 23°C and Initial boiling point ≤ 35°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.
Serious damage / eye irritation:	Eye Irrit. 2	H319: Causes serious eye irritation.
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.
Carcinogenicity:	Carc. 1B	H350: May cause cancer.
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, liver, spleen, thymus	H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.

Hazard class	Hazard category	Hazard statement
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves/protective clothing/eye protection/face protection/...
(*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 2. Crudeoil (Viscosity ≤ 20.5 mm²/s at 40°C; Flash point < 23°C and Initial boiling point > 35°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.
Serious damage / eye irritation:	Eye Irrit. 2	H319: Causes serious eye irritation.
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.
Carcinogenicity:	Carc. 1B	H350: May cause cancer.
Specific target organ toxicity - single exposure:	STOT Single Exp. 3	H336: May cause drowsiness or dizziness.

Hazard class	Hazard category	Hazard statement
	Affected organs: Central nervous system Route of exposure: Inhalation	
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, liver, spleen, thymus	H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 3. Crudeoil (Viscosity ≤ 20.5 mm²/s at 40°C; Flash point ≥ 23°C and ≤ 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.
Serious damage / eye irritation:	Eye Irrit. 2	H319: Causes serious eye irritation.

Hazard class	Hazard category	Hazard statement
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.
Carcinogenicity:	Carc. 1B	H350: May cause cancer.
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, liver, spleen, thymus	H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 4. Crudeoil (Viscosity ≤ 20.5 mm²/s at 40°C; Flash point > 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement
Serious damage / eye irritation:	Eye Irrit. 2	H319: Causes serious eye irritation.
Aspiration hazard:	Asp. Tox. 1	H304: May be fatal if swallowed and enters airways.
Carcinogenicity:	Carc. 1B	H350: May cause cancer.
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, liver, spleen, thymus	H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/… (*…Manufacturer/supplier to specify the appropriate source of emergency medical advice.*)
P331: Do NOT induce vomiting.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 5. Crudeoil (Viscosity > 20.5 mm²/s at 40°C; Flash point < 23°C and Initial boiling point ≤ 35°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement
Flammable liquids:	Flam. Liquid 1	H224: Extremely flammable liquid and vapour.
Serious damage / eye irritation:	Eye Irrit. 2	H319: Causes serious eye irritation.
Carcinogenicity:	Carc. 1B	H350: May cause cancer.
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, liver, spleen, thymus	H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H224: Extremely flammable liquid and vapour.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 6. Crudeoil (Viscosity > 20.5 mm²/s at 40°C; Flash point < 23°C and Initial boiling point > 35°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement
Flammable liquids:	Flam. Liquid 2	H225: Highly flammable liquid and vapour.
Serious damage / eye irritation:	Eye Irrit. 2	H319: Causes serious eye irritation.
Carcinogenicity:	Carc. 1B	H350: May cause cancer.
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, liver, spleen, thymus	H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 7. Crudeoil (Viscosity > 20.5 mm²/s at 40°C; Flash point ≥ 23°C and ≤ 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement
Flammable liquids:	Flam. Liquid 3	H226: Flammable liquid and vapour.
Serious damage / eye irritation:	Eye Irrit. 2	H319: Causes serious eye irritation.
Carcinogenicity:	Carc. 1B	H350: May cause cancer.
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, liver, spleen, thymus	H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

Labelling

Signal word: Danger

Hazard pictogram:

GHS02: flame 

GHS07: exclamation mark 

GHS08: health hazard 

GHS09: environment 

Hazard statements:

H226: Flammable liquid and vapour.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

CLP 8. Crudeoil (Viscosity > 20.5 mm²/s at 40°C; Flash point > 60°C)

Classification and labelling according to CLP / GHS

Hazard class	Hazard category	Hazard statement
Serious damage / eye irritation:	Eye Irrit. 2	H319: Causes serious eye irritation.
Carcinogenicity:	Carc. 1B	H350: May cause cancer.
Specific target organ toxicity - single exposure:	STOT Single Exp. 3 Affected organs: Central nervous system Route of exposure: Inhalation	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure:	STOT Rep. Exp. 2 Affected organs: Blood, liver, spleen, thymus	H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
Hazards to the aquatic environment (chronic/long-term):	Aquatic Chronic 2	H411: Toxic to aquatic life with long lasting effects.

Labelling

Signal word: Danger

Hazard pictogram:

GHS07: exclamation mark

GHS08: health hazard

GHS09: environment

Hazard statements:

H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H350: May cause cancer.
H373: May cause damage to blood, liver, spleen and thymus through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P201: Obtain special instructions before use.
P280: Wear protective gloves/protective clothing/eye protection/face protection/... (*Manufacturer/supplier to specify type of equipment.*)
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P501: Dispose of contents/container to … (*… in accordance with local/regional/national/international regulation (to be specified). Manufacturer/supplier to specify whether disposal requirements apply to contents, container or both.*)

Additional labelling requirements:

EUH066: Repeated exposure may cause skin dryness or cracking.
Restricted to professional users due to classification as carcinogenic Category 1B.

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