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NYTRO® LIBRA





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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name NYTRO® LIBRA

UFI AH1-G004-M00V-3N3D Product description Insulating oil / Transformer oil

Product type Liquid.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Formulation and (re)packing of substances and mixtures - Industrial

Use in functional fluids - Industrial Use in functional fluids - Professional

Uses advised against	Reason
This product must not be used in applications other than those recommended in Section 1, without first seeking the advice of the supplier.	-

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer ReinhardOil.dk ApS

Cottagevej 11, 1. 2900 Hellerup Danmark

www.reinhardoil.dk +45 70 26 70 07

e-mail address of person responsible for this SDS

mail@reinhardoil.dk

1.4 Emergency telephone number

Telephone number +45 70 26 70 07 24

Hours of operation 8 - 16
National advisory body/Poison Centre

Telephone number +45 82 12 12 12 (Kemiakuten, 24h service)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Asp. Tox. 1, H304

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

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SECTION 2: Hazards identification

Hazard pictograms



Signal word Danger

Hazard statements H304 - May be fatal if swallowed and enters airways.

Precautionary statements

Prevention Not applicable.

Response P301 + P310, P331 - IF SWALLOWED: Immediately call a POISON CENTER or

doctor. Do NOT induce vomiting.

Storage Not applicable.

Disposal P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Supplemental label elements

Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification

Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

3.2 Mixtures Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
Sistillate (petroleum), hydrotreated light naphthenic	REACH #: 01-2119480375-34 EC: 265-156-6 CAS: 64742-53-6	>50	Asp. Tox. 1, H304	-	[1] [2]
Distillate (petroleum), hydrotreated light paraffinic	REACH #: 01-2119487077-29 EC: 265-158-7 CAS: 64742-55-8	<50	Asp. Tox. 1, H304	-	[1] [2]
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	REACH #: 01-2119474878-16 EC: 276-737-9 CAS: 72623-86-0	<35	Asp. Tox. 1, H304	-	[1] [2]
			See Section 16 for the full text of the H statements declared above.		

Regulation (EC) No. 1272/2008 [CLP] Annex VI Nota L applies to the base oil(s) in this product. Nota L - The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346.

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SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing. If irritation, blurred vision or swelling occurs and

persists, obtain medical advice from a specialist.

Inhalation If breathing is difficult, remove victim to fresh air and keep at rest in a position

comfortable for breathing. If casualty is unconscious and: If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if adverse health effects persist or are

severe. Maintain an open airway.

Skin contact Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove

contaminated clothing and shoes. Handle with care and dispose of in a safe manner. Seek medical attention if skin irritation, swelling or redness develops and persists.

Accidental high pressure injection through the skin requires immediate medical

attention. Do not wait for symptoms to develop.

Ingestion Always assume that aspiration has occurred. Do not induce vomiting. Can enter

lungs and cause damage. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Seek professional medical attention or send the

casualty to a hospital. Do not wait for symptoms to develop.

Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. It may

be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Before attempting to rescue casualties, isolate area from all potential sources of ignition including disconnecting electrical supply. Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined

spaces.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact Slight irritant

Inhalation Inhalation of oil mist or vapours at elevated temperatures may cause respiratory

irritation.

Skin contact Adverse symptoms may include the following:

irritation dryness cracking

Ingestion Adverse symptoms may include the following:

Nausea or vomiting.

diarrhoea

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Due to low viscosity there is a risk of aspiration if the product enters the lungs. Treat

symptomatically.

Specific treatments Always assume that aspiration has occurred.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing

media

Do not use direct water jets on the burning product; they could cause splattering and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

In a fire or if heated, a pressure increase will occur and the container may burst. This substance will float and can be reignited on surface water.

Hazardous combustion

products

Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, H2S, SOx (sulfur oxides) or sulfuric acid and unidentified organic and inorganic compounds.

5.3 Advice for firefighters

Special precautions for firefighters Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid breathing vapour or mist. Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Stop leak if safe to do so. Avoid direct contact with the product. Stay upwind/keep distance from source. In case of large spillages, alert occupants in downwind areas.

Eliminate all ignition sources if safe to do so. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations.

Note: recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

For emergency responders

Small spillages: normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and thermal resistant material should be used. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: gloves made of PVA are not water-resistant, and are not suitable for emergency use. Safety helmet, antistatic non-skid safety shoes or boots. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory protection: A half or full-face respirator with filter(s) for organic vapours (and when applicable for H2S) a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

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SECTION 6: Accidental release measures

6.2 Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water. If necessary dike the product with dry earth, sand or similar non-combustible materials. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations.

In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this is not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.3 Methods and material for containment and cleaning up

Small spill Stop leak if without risk. Absorb spilled product with suitable non-combustible

materials.

Large spill Large spillages may be cautiously covered with foam, if available, to limit vapour

cloud formation. Do not use water jet. When inside buildings or confined spaces, ensure adequate ventilation. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal. Approach the release from upwind. Contaminated absorbent material may pose the same hazard as the

spilt product.

6.4 Reference to other

sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

General information

Obtain special instructions before use. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Use and store only outdoors or in a well-ventilated area. Hazard of slipping on spilt product. Avoid release to the environment.

7.1 Precautions for safe handling

Protective measures

Do not ingest. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

Prevent the risk of slipping. Take precautionary measures against static discharge. Avoid splash filling of bulk volumes when handling hot liquid product. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene

Nota: See Section 8 for information on appropriate personal protective equipment. See section 13 for waste disposal information.

Ensure that proper housekeeping measures are in place. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash hands thoroughly after handling. Change contaminated clothes at the end of working shift. See also Section 8 for additional information on hygiene measures.

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SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities

Storage area layout, tank design, equipment and operating procedures must comply with the relevant regional, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.

Store separately from oxidising agents.

Recommended materials for containers, or container linings use mild steel, stainless steel. Not suitable: Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer.

Keep only in the original container or in a suitable container for this kind of product. Keep container tightly closed and sealed until ready for use. Do not store in unlabelled containers. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Empty containers may contain harmful, flammable/combustible or explosive residue or vapours. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards. Store locked up. Protect from sunlight.

7.3 Specific end use(s)

Recommendations
Industrial sector specific solutions

Not available. Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Distillate (petroleum), hydrotreated light naphthenic	Work environment authority Regulation 2018:1 (Sweden, 9/2021). [old used mineral oil] Absorbed through skin.
Distillate (petroleum), hydrotreated light paraffinic	Work environment authority Regulation 2018:1 (Sweden, 9/2021). [oil mist, incl. oil fumes] TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume Work environment authority Regulation 2018:1 (Sweden, 9/2021). [old used mineral oil] Absorbed through skin.
	Work environment authority Regulation 2018:1 (Sweden,
	9/2021). [oil mist, incl. oil fumes] TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Work environment authority Regulation 2018:1 (Sweden, 9/2021). [old used mineral oil] Absorbed through skin.
	Work environment authority Regulation 2018:1 (Sweden, 9/2021). [oil mist, incl. oil fumes]
	TWA: 1 mg/m³ 8 hours. Form: mist and fume STEL: 3 mg/m³ 15 minutes. Form: mist and fume
Oil mist	[Air contaminant] Work environment authority Regulation 2018:1 (Sweden, 9/2021). [oil mist, incl. oil fumes] TWA: 1 mg/m³ 8 hours. Form: mist and fume
	STEL: 3 mg/m³ 15 minutes. Form: mist and fume Work environment authority Regulation 2018:1 (Sweden,

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SECTION 8: Exposure controls/personal protection

9/2021). [old used mineral oil] Absorbed through skin.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Туре	Exposure	Value	Population	Effects
istillate (petroleum), hydrotreated light naphthenic	DNEL	Long term Inhalation	5,58 mg/m³	Workers	Local
Distillate (petroleum), hydrotreated light paraffinic	DNEL	Long term Inhalation	5,58 mg/m ³	Workers	Local
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	DNEL	Long term Inhalation	5,58 mg/m ³	Workers	Local

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls

Mechanical ventilation and local exhaust will reduce exposure via the air. Use oil resistant material in construction of handling equipment. Store under recommended conditions and if heated, temperature control equipment should be used to avoid overheating.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location. Wash contaminated clothing before reuse.

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Recommended: Safety glasses with side shields.

Eye/face protection

Skin protection

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Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should

be worn at all times when handling chemical products if a risk assessment indicates

this is necessary. 4 - 8 hours (breakthrough time): nitrile rubber

Body protection Wear protective clothing if there is a risk of skin contact. Change contaminated

clothes at the end of working shift.

Other skin protection Appropriate footwear and any additional skin protection measures should be

selected based on the task being performed and the risks involved and should be

approved by a specialist before handling this product.

Respiratory protection Respirator selection must be based on known or anticipated exposure levels, the

hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, particulate filter respirator complying with an approved standard if a

risk assessment indicates this is necessary.

Environmental exposure

controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment

will be necessary to reduce emissions to acceptable levels.

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SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Physical state Liquid.
Colour Light yellow

Odour Odourless/Light petroleum.

Melting point/freezing point -51°C

Initial boiling point and boiling

range

>240°C (>464°F) [ASTM D 2887]

Flammability Not available. Lower and upper explosion limit Not available.

Flash point Closed cup: >140°C (>284°F) [Pensky-Martens]

Auto-ignition temperature >200°C (>392°F)

Decomposition temperature >280°C

pH Not applicable.

Viscosity Kinematic (40°C): 9,6 mm²/s (9,6 cSt)

Solubility in water Insoluble in water.

Partition coefficient: n-octanol/ Not applicable.

water

Vapour pressure (Calculated) <0,01 kPa (<0,075 mm Hg)

Density 0,88 g/cm³ [15°C (59°F)]

Vapour density Not available.

9.2 Other information

DMSO extractable compounds for base oil substance(s) according to IP346 < 3%

SECTION 10: Stability and reactivity

10.1 Reactivity No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability Stable under normal conditions.

10.3 Possibility of hazardous

reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid Keep away from extreme heat and oxidizing agents. Take precautionary measures

against static discharge.

10.5 Incompatible materials Oxidising agent.

10.6 Hazardous Incomplete combustion is likely to give rise to a complex mixture of airborne solid and decomposition products liquid particulates, gases, including carbon monoxide, H2S, SOx (sulfur oxides) or

sulfuric acid and unidentified organic and inorganic compounds.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure	Remarks
istillate (petroleum), hydrotreated light naphthenic	LC50 Inhalation Dusts and mists	Rat	>5,53 mg/l	4 hours	EMBSI 1988 (similar material)
партитотно	LD50 Dermal	Rabbit	>5000 mg/kg	-	API 1982 (similar material)
	LD50 Oral	Rat	>5000 mg/kg	-	API 1982(similar material)
Distillate (petroleum), hydrotreated light paraffinic	LC50 Inhalation Dusts and mists	Rat	>5,53 mg/l	4 hours	EMBSI 1988 (similar material)
	LD50 Dermal	Rabbit	>5000 mg/kg	-	API 1982 (similar material)
	LD50 Oral	Rat	>5000 mg/kg	-	API 1982(similar material)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil- based	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5,53 mg/l	4 hours	EMBSI 1988 (similar material)
	LD50 Dermal	Rabbit	>5000 mg/kg	-	API 1982 (similar material)
	LD50 Oral	Rat	>5000 mg/kg	-	API 1982(similar material)

Conclusion/Summary

Based on available data, the classification criteria are not met.

Acute toxicity estimates

N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Observation	Remarks
istillate (petroleum), hydrotreated light naphthenic	Eyes - Non-irritating to the eyes.	Rabbit	0 to 0,11	24 to 72 hours	API 1982(similar material)
Партитотно	Skin - Non-irritant to skin.	Rabbit	0 to 1	24 to 72 hours	API 1982(similar material)
Distillate (petroleum), hydrotreated light paraffinic	Eyes - Non-irritating to the eyes.	Rabbit	0 to 0,11	24 to 72 hours	API 1982(similar material)
'	Skin - Non-irritant to skin.	Rabbit	0 to 1	24 to 72 hours	API 1982(similar material)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil- based	Eyes - Non-irritating to the eyes.	Rabbit	0 to 0,11	24 to 72 hours	API 1982(similar material)
54004	Skin - Non-irritant to skin.	Rabbit	0 to 1	24 to 72 hours	API 1982 (similar material)

Skin
Eyes
Respiratory
Sensitisation

Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.

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SECTION 11: Toxicological information

Product/ingredient name	Route of exposure	Species	Result	Remarks
stillate (petroleum), hydrotreated light naphthenic	skin	Guinea pig	Not sensitizing	API 1982(similar material)
Distillate (petroleum), hydrotreated light paraffinic	skin	Guinea pig	Not sensitizing	API 1982(similar material)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil- based	skin	Guinea pig	Not sensitizing	UBTL 1984j,k,l (similar material)

Skin Based on available data, the classification criteria are not met.

Respiratory Based on available data, the classification criteria are not met.

Mutagenicity

Conclusion/Summary Based on available data, the classification criteria are not met.

Carcinogenicity

Conclusion/Summary The base oil(s) in this product is based on an severely hydrotreated distillate. Based

on available data, the classification criteria are not met.

Reproductive toxicity

Conclusion/Summary Based on available data, the classification criteria are not met.

Teratogenicity

Conclusion/Summary Based on available data, the classification criteria are not met.

Aspiration hazard

Product/ingredient name	Result
Sistillate (petroleum), hydrotreated light naphthenic Distillate (petroleum), hydrotreated light paraffinic Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
vistillate (petroleum), hydrotreated light naphthenic	Sub-chronic LOAEL Oral	Rat	125 mg/kg	-
	Sub-chronic NOAEL Dermal	Rat	>2000 mg/kg	-
	Sub-acute NOEL Inhalation	Rat	220 mg/m³	6 hours; 5 days
	Dusts and mists			per week
Distillate (petroleum),	Sub-chronic LOAEL Oral	Rat	125 mg/kg	-
hydrotreated light paraffinic				
	Sub-chronic NOAEL Dermal	Rat	>2000 mg/kg	-
	Sub-acute NOEL Inhalation Dusts and mists	Rat	220 mg/m³	6 hours; 5 days per week
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Sub-chronic LOAEL Oral	Rabbit	125 mg/kg	-
	Sub-chronic NOAEL Dermal	Rat	>2000 mg/kg	-
	Sub-chronic NOEL Inhalation Dusts and mists	Rat	220 mg/m³	6 hours; 5 days per week

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

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SECTION 11: Toxicological information

Aspiration hazard

Aspiration means the entry of a liquid substance directly into the trachea and lower respiratory tract.

Aspiration of hydrocarbon substances can result in in severe acute effects such as chemical pneumonitis, varying degree of pulmonary injury or death.

This property relates to the potential for low viscosity material to spread quickly into the deep lung and cause severe pulmonary tissue damage.

Classification of a hydrocarbon substance for aspiration hazard is made on the basis of reliable human evidence or on the basis of physical properties.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
☑stillate (petroleum), hydrotreated light naphthenic	Acute EL50 >10000 mg/l	Daphnia	48 hours
	Acute LL50 >100 mg/l	Fish	96 hours
	Acute NOEL >100 mg/l	Algae	72 hours
	Chronic NOEL 10 mg/l Fresh water	Daphnia	21 days
Distillate (petroleum), hydrotreated light paraffinic	Acute EL50 >10000 mg/l	Daphnia	48 hours
	Acute LL50 >100 mg/l	Fish	96 hours
	Acute NOEL >100 mg/l	Algae	72 hours
	Chronic NOEL 10 mg/l Fresh water	Daphnia	21 days
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Acute EL50 >10000 mg/l	Daphnia	48 hours
	Acute LL50 >100 mg/l	Fish	96 hours
	Acute NOEL >100 mg/l	Algae	72 hours
	Chronic NOEL 10 mg/l Fresh water	Daphnia	21 days

Conclusion/Summary

Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
istillate (petroleum), hydrotreated light naphthenic	-	-	Not readily
Distillate (petroleum),	-	-	Not readily
hydrotreated light paraffinic Lubricating oils (petroleum),	-	_	Not readily
C15-30, hydrotreated neutral			,
oil-based			

Conclusion/Summary

Not readily biodegradable. This product is inherently biodegradable.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
istillate (petroleum), hydrotreated light naphthenic	2 to 6	<500	Low
Distillate (petroleum), hydrotreated light paraffinic	2 to 6	<500	Low
	2 to 6	<500	Low

Conclusion/Summary

The product has a potential to bioaccumulate.

12.4 Mobility in soil

High mobility in soil predicted, based on log Kow > 3.0. Mobility

12.5 Results of PBT and vPvB assessment

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SECTION 12: Ecological information

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

Insoluble in water. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal

Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended. This substance can be burned or incinerated, subject to national/local authorizations, relevant contamination limits, safety regulations and air quality legislation. Contaminated or waste substance (not directly recyclable): Disposal can be carried out directly, or by delivery to qualified waste handlers. National legislation may identify a specific organization, and/or prescribe composition limits and methods for recovery or disposal.

Hazardous waste

Yes.

European waste catalogue (EWC)

Waste code	Waste designation	
13 03 07*	mineral-based non-chlorinated insulating and heat transmission oils	

Packaging

Methods of disposal

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14: Transport information

International transport regulations

	ADR/RID	ADN	IMO/IMDG Classification	ICAO/IATA Classification
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

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SECTION 14: Transport information

14.6 Special precautions for

user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

MARPOL Annex 1 - Oils

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

mixtures and articles

Labelling Not applicable.

Other EU regulations

Industrial emissions

Not listed

(integrated pollution

prevention and control) - Air

Industrial emissions

Not listed

(integrated pollution prevention and control) -

Water

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

National inventory

Australia All components are listed or exempted.
Canada All components are listed or exempted.
China All components are listed or exempted.

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SECTION 15: Regulatory information

Eurasian Economic Union Russian Federation inventory: All components are listed or exempted.

Japan inventory (CSCL): All components are listed or exempted.

Japan inventory (ISHL): All components are listed or exempted.

New Zealand All components are listed or exempted. **Philippines** All components are listed or exempted. Republic of Korea All components are listed or exempted. Taiwan All components are listed or exempted. Thailand All components are listed or exempted. Turkey All components are listed or exempted. **United States** All components are active or exempted. Viet Nam All components are listed or exempted.

15.2 Chemical safety

assessment

Complete.

SECTION 16: Other information

Revision comments Not available.

Indicates information that has changed from previously issued version.

Abbreviations and acronyms ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/20081

DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Asp. Tox. 1, H304	Calculation method

<u>Sweden</u>

Full text of abbreviated H H304 May be fatal if swallowed and enters airways.

statements

Full text of classifications [CLP/ Asp. Tox. 1 ASPIRATION HAZARD - Category 1

GHS₁

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Section 1 - Title

Short title of the exposure

scenario

Formulation and (re)packing of substances and mixtures - Industrial

Identified use name: Formulation and (re)packing of substances and mixtures -List of use descriptors

Industrial

Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a.

PROC08b, PROC09, PROC14, PROC15, PROC28 Subsequent service life relevant for that use: No.

Environmental Release Category: ERC02, ESVOC SpERC 2.2.v2

Environmental contributing

scenarios

Formulation into mixture - ERC02

Health Contributing scenarios General exposures (open systems) - PROC04

General exposures (closed systems) - PROC01, PROC02, PROC03

Batch processes at elevated temperatures - PROC03

Laboratory activities - PROC15 Bulk transfers - PROC08b

Mixing operations (open systems) - PROC05 Transfer from/pouring from containers - PROC08a

Drum/batch transfers - PROC08b

Tabletting, compression, extrusion or pelletisation - PROC14

Drum and small package filling - PROC09

Storage - PROC01, PROC02 Process sampling - PROC09

Equipment cleaning and maintenance - PROC08a, PROC28

Industry Association

Processes and activities covered by the exposure

scenario

Concawe - 2021

Formulation, packing and re-packing of the substance and its mixtures in batch or continuous operations, including storage, materials transfers, mixing, tabletting, compression, pelletisation, extrusion, large and small scale packing, sampling,

maintenance and associated laboratory activities.

Section 2 - Exposure controls

2.1 Control of environmental exposure

Amounts used Annual site tonnage (tonnes/year) 10 400

Maximum daily site tonnage (kg/day) 34 700

Frequency and duration of use Continuous release

Emission days (days per year) 300

Other conditions affecting environmental exposure

Release fraction to air from process (initial release prior to RMM) 0.0025 Release fraction to wastewater from process (initial release prior to RMM) 3.0E-6 Release fraction to soil from process (initial release prior to RMM) 0.0001

Technical on-site conditions and measures to reduce or limit discharges, air emissions and

releases to soil

Prevent discharge of undissolved substance to or recover from onsite wastewater. If discharging to domestic sewage treatment plant, no onsite wastewater treatment required.

Risk management measures -

Water

Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of (%) 92.9

Organisational measures to prevent/limit release from site

Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

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Section 2 - Exposure controls

Conditions and measures related to sewage treatment <u>plant</u>

Estimated substance removal from wastewater via domestic sewage treatment (%):

Total efficiency of removal from wastewater after onsite and offsite (domestic

treatment plant) RMMs (%): 94.8 Maximum allowable site tonnage (Msafe) based on release following total wastewater

treatment removal (kg/day): 58 000

Assumed on-site sewage treatment plant flow (m³/d): 2000

2.2 Control of worker exposure

General measures applicable to all activities

Concentration of substance in mixture or article

Covers percentage substance in the product up to 100 %.

Frequency and duration of

Covers daily exposures up to 8 hours

use

Other conditions affecting workers exposure

Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature. There are no routine anticipated exposures by ingestion related to any supported uses of the substance. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific risk.

Risk management measures (RMM)

General exposures (closed systems) - PROC 1, PROC 2, PROC 3 Sample via a closed loop or other system to avoid exposure.

Batch processes at elevated temperatures Use in contained systems - PROC 3 Handle substance within a closed system. Assumes process temperature up to 60.0 °C.

Bulk transfers Dedicated facility - PROC 8b Handle substance within a closed system.

Manual Transfer from/pouring from containers Non-dedicated facility - PROC 8a Use drum pumps.

Equipment cleaning and maintenance - PROC 8a, PROC 28 Drain down and flush system prior to equipment break-in or maintenance.

Storage - PROC 1, PROC 2

Store substance within a closed system.

Section 3 - Exposure estimation and reference to its source

3.1 Environment

Exposure assessment (environment):

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

3.2 Workers

Exposure assessment (human):

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Qualitative approach used to conclude safe use.

Exposure estimation and reference to its source

A DNEL (derived no effect levels) cannot be derived. There are no routine anticipated exposures by ingestion related to any supported uses of the substance. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk

management measures tailored to this specific risk.

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Section 1 - Title

Short title of the exposure

scenario

Use in functional fluids - Industrial

List of use descriptors Identified use name: Use in functional fluids - Industrial

Process Category: PROC01, PROC02, PROC04, PROC08a, PROC08b, PROC09,

PROC28

Subsequent service life relevant for that use: No.

Environmental Release Category: ERC07,

Environmental contributing

scenarios

Use of functional fluid at industrial site - ERC07

Health Contributing scenarios General exposures (closed systems) - PROC02

Bulk transfers - PROC01, PROC02 Storage - PROC01, PROC02 Drum/batch transfers - PROC08b Filling of articles/equipment - PROC09

Filling of equipment from drums or containers - PROC08a

General exposures (open systems) - PROC04 Remanufacture of reject articles - PROC09

Equipment cleaning and maintenance - PROC08a, PROC28

Industry Association Concawe - 2021

Processes and activities covered by the exposure

scenario

Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in industrial equipment including maintenance and related material

transfers.

Section 2 - Exposure controls

2.1 Control of environmental exposure

Amounts used Annual site tonnage (tonnes/year) 10

Maximum daily site tonnage (kg/day) 500

Frequency and duration of use Continuous release

Emission days (days per year) 20

Other conditions affecting environmental exposure

Release fraction to air from process (initial release prior to RMM) 0.0001 Release fraction to wastewater from process (initial release prior to RMM) 1.0E-6

Release fraction to soil from process (initial release prior to RMM) 0.001

Technical on-site conditions and measures to reduce or limit required.

discharges, air emissions and

releases to soil

plant

If discharging to domestic sewage treatment plant, no onsite wastewater treatment

Organisational measures to prevent/limit release from site

Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

Estimated substance removal from wastewater via domestic sewage treatment (%):

Conditions and measures related to sewage treatment

94.8

Total efficiency of removal from wastewater after onsite and offsite (domestic

treatment plant) RMMs (%): 94.8

Maximum allowable site tonnage (Msafe) based on release following total wastewater

treatment removal (kg/day) 4600

Assumed on-site sewage treatment plant flow (m³/d) 2000

2.2 Control of worker exposure

General measures applicable to all activities

Concentration of substance in mixture or article

Covers percentage substance in the product up to 100 %. unless stated differently

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Section 2 - Exposure controls

Frequency and duration of

use

Covers daily exposures up to 8 hours

Other conditions affecting

workers exposure

Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature. There are no routine anticipated exposures by ingestion related to any supported uses of the substance. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific risk.

Risk management measures (RMM)

Bulk transfers Closed system - PROC 1, PROC 2 Handle substance within a closed system.

Filling of articles/equipment Closed system - PROC 9

Handle substance within a closed system.

Filling of equipment from drums or containers Non-dedicated facility - PROC 8a Use drum pumps.

General exposures (closed systems) - PROC 2

Sample via a closed loop or other system to avoid exposure.

General exposures (open systems) Elevated temperature - PROC 4

Minimise exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings. Assumes process temperature up to 80.0 °C.

Remanufacture of reject articles - PROC 9

Drain or remove substance from equipment prior to break-in or maintenance.

Equipment cleaning and maintenance - PROC 8a, PROC 28

Drain down and flush system prior to equipment break-in or maintenance.

Storage - PROC 1, PROC 2

Store substance within a closed system.

Section 3 - Exposure estimation and reference to its source

3.1 Environment

Exposure assessment

(environment):

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

3.2 Workers

Exposure assessment

(human):

The ECETOC TRA tool has been used to estimate workplace exposures unless

otherwise indicated.

Qualitative approach used to conclude safe use.

Exposure estimation and reference to its source

A DNEL (derived no effect levels) cannot be derived. There are no routine anticipated exposures by ingestion related to any supported uses of the substance. The risk arising from aspiration hazard is solely related to the physico-chemical properties of

the substance. The risk can therefore be controlled by implementing risk

management measures tailored to this specific risk.

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Section 1 - Title

Short title of the exposure

scenario

Use in functional fluids - Professional

Identified use name: Use in functional fluids - Professional List of use descriptors

Process Category: PROC01, PROC02, PROC03, PROC08a, PROC09, PROC20,

PROC28

Subsequent service life relevant for that use: No.

Environmental Release Category: ERC09a, ERC09b, ESVOC SpERC 9.13b.v2

Environmental contributing

scenarios

Widespread use of functional fluid (outdoor) - ERC09b Widespread use of functional fluid (indoor) - ERC09a

Health Contributing scenarios Drum/batch transfers - PROC08a

Transfer from/pouring from containers - PROC09

Operation of equipment containing engine oils and similar - PROC20

Remanufacture of reject articles - PROC09

Equipment cleaning and maintenance - PROC08a, PROC28

Storage - PROC01, PROC02

Filling of equipment from drums or containers - PROC09

General exposures (closed systems) - PROC01, PROC02, PROC03

Industry Association

scenario

Processes and activities covered by the exposure

Use as functional fluids e.g. cable oils, transfer oils, coolants, insulators, refrigerants, hydraulic fluids in industrial equipment including maintenance and related material

transfers.

Section 2 - Exposure controls

2.1 Control of environmental exposure

Amounts used Annual site tonnage (tonnes/year) 0.05

Maximum daily site tonnage (kg/day) 0.01

Frequency and duration of use Continuous release

Emission days (days per year) 365

Other conditions affecting environmental exposure

Release fraction to air from process (initial release prior to RMM) 0.05

Release fraction to wastewater from process (initial release prior to RMM) 0.05

Release fraction to soil from process (initial release prior to RMM) 0.05

Technical on-site conditions and measures to reduce or limit required.

discharges, air emissions and

releases to soil

If discharging to domestic sewage treatment plant, no onsite wastewater treatment

Risk management measures -Water

Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of (%) 81.2

Conditions and measures related to sewage treatment

plant

Do not apply industrial sludge to natural soils. Sewage sludge should be incinerated, contained or reclaimed.

Conditions and measures related to external treatment of waste for disposal

Estimated substance removal from wastewater via domestic sewage treatment (%):

Total efficiency of removal from wastewater after onsite and offsite (domestic

treatment plant) RMMs (%): 94.8

Maximum allowable site tonnage (Msafe) based on release following total wastewater

treatment removal (kg/day): 0.42

Assumed domestic sewage treatment plant flow (m3/d): 2000

2.2 Control of worker exposure

General measures applicable to all activities

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Section 2 - Exposure controls

Concentration of substance

in mixture or article

Covers percentage substance in the product up to 100 %.

Frequency and duration of

Other conditions affecting

workers exposure

Covers daily exposures up to 8 hours

Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature. There are no routine anticipated exposures by ingestion related to any supported uses of the substance. The risk arising from aspiration hazard is solely related to the physico-chemical properties of the substance. The risk can therefore be controlled by implementing risk management measures tailored to this specific risk.

Risk management measures (RMM)

Drum/batch transfers Non-dedicated facility - PROC 8a Use drum pumps.

Transfer from/pouring from containers - PROC 9 Use drum pumps.

Filling of equipment from drums or containers - PROC 9

Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).

General exposures (closed systems) - PROC1, PROC 2, PROC 3 Sample via a closed loop or other system to avoid exposure.

Operation of equipment containing engine oils and similar Closed system - PROC 20 Handle substance within a closed system.

Operation of equipment containing engine oils and similar Closed system Elevated temperature - PROC 20 Assumes process temperature up to 80.0 °C.

Remanufacture of reject articles - PROC 9

Drain or remove substance from equipment prior to break-in or maintenance.

Equipment cleaning and maintenance - PROC 8a, PROC 28

Drain down and flush system prior to equipment break-in or maintenance.

Storage - PROC 1, PROC 2

Store substance within a closed system.

Section 3 - Exposure estimation and reference to its source

3.1 Environment

Exposure assessment (environment):

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

nment): With the Petrorisk model

3.2 Workers

Exposure assessment

(human):

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Qualitative approach used to conclude safe use.

Exposure estimation and reference to its source

A DNEL (derived no effect levels) cannot be derived. There are no routine anticipated exposures by ingestion related to any supported uses of the substance. The risk arising from aspiration hazard is solely related to the physico-chemical properties of

the substance. The risk can therefore be controlled by implementing risk

management measures tailored to this specific risk.

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