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

1.1. Product identifier:

Product name: Industrial Hydraulic Oil.
Product manufacturer: "CrossChem" Ltd.
REACH Registration No.: Not applicable for mixtures.
CAS No.: Not applicable for mixtures.
EC No.: Not applicable for mixtures.
Index No.: Not listed.
Molecular formula: Not applicable for mixtures.

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

Relevant identified uses:

SU21 – Consumer uses;
SU22 – Professional uses;
PC17 – Hydraulic fluids;
PC24 – Lubricants, greases, release products;
PROC18 – General greasing /lubrication at high kinetic energy conditions;
PROC20 – Use of functional fluids in small devices;
ERC7 – Use of functional fluid at industrial site;
ERC9a – Widespread use of functional fluid (indoor);
ERC9b – Widespread use of functional fluid (outdoor).

Descriptor codes are only indicative, as it depends on end use of consumer.

Uses advised against: Not applicable.
Reason why uses advised against: Not applicable.

1.3. Details of the Supplier of the safety data sheet:

Manufacturer/Supplier: "CrossChem" Ltd.;
Street address/P.O. Box: "Naftaluka", Olaines pagasts, Olaines novads, LV-2127, Latvia. (Office, factory, warehouse).
National Registration No.: 40003888244
Telephone number: +371 26624000 (Administration)
E-mail: info@crosschem.lv
Homepage: https://crosschem.lv/
E-mail address of competent person, responsible for the SDS: andris.matiss@crosschem.lv

1.4. Emergency telephone number:

State Fire and Rescue Service: **(+371) 112**
Working hours: 24 hours a day, 365 days a year.

National Toxicology Center: **(+371) 67042468; (+371) 67000610**
Opening hours: Working days from 8:00 to 17:00, weekends and public holidays from 9:00 to 15:30.

Other notes: Help is provided in Latvian, Russian and English.

Poison Control Centers in Europe can be found on this site https://poisoncentres.echa.europa.eu/appointed-bodies

SECTION 2. Hazards identification.

2.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No. 1272/2008 (CLP):

Asp. Tox. 1 (**H304** – May be fatal if swallowed and enters airways).

2.2 Label elements:

Labelling according to Regulation (EC) No. 1272/2008 (CLP):
According to Regulation (EC) No. 1272/2008 (CLP), product needs labelling.

Hazard pictograms: **GHS08** – Health hazard.
Signal word: Dgr. – Danger.
Hazard statements: **H304** – May be fatal if swallowed and enters airways.
Precautionary statements: **P301+P310:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician;
P331: Do NOT induce vomiting;
P405: Store locked up;
P501: Dispose of contents/container in accordance to local waste regulations.

Supplemental Hazard information (EU): Not applicable.

2.3. Other hazards: Combustible product, poorly flammable.

SECTION 3. Composition/ information on ingredients.

3.1. Substance: Not applicable.
3.2. Mixtures:

Name of the substance	CAS No.	EC No.	REACH No.	Clasification according to (EC) No. 1272/2008.	W%/W
White mineral oil (Petroleum)	8042-47-5	232-455-8	01-2119487078-27-XXXX	Asp. Tox. 1 (**H304** – May be fatal if swallowed and enters airways).	96 – 99 %

SECTION 4. First aid measures.

4.1. Description of first aid measures:

General information:
Remove contaminated, saturated clothing immediately. In case of accident or unwelness, seek medical advice immediately. Keep the victim calm. If the person is unconscious, place person in stable recovery position. Consult a physician. Show this safety data sheet to the doctor in attendance.

Following inhalation:
Inhalation at ambient temperature is unlikely because of the low vapour pressure of the substance. Irritation may occour of the respiratory tract due to excess fume, spray, mists or vapour exposure. If inhaled, remove the person to fresh air. Loosen tight clothing such as collar, tie, belt or waistband to prevent any breathing restrictions. If breathing is difficult, administer oxygen. If not breathing, give artificial resuscitation (CPR). In every cases where there is doubt of person's life or if symptoms remain, seek medical attention.

Following skin contact:
Wash the affected area thoroughly with soap and plenty of water for at least 15 minutes. Remove contaminated clothing and footwear. Wash clothing before reuse. If irritation develops or remains, seek medical advice. For minor thermal burns: Cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. However, body hypothermia must be avoided. Do not put ice on the burn; Remove non-sticking clothing carefully. DO NOT attempt to remove portions of clothing glued to burnt skin but cut round them. Seek medical attention in all cases of serious burns.

Following eye contact:
Promptly flush eyes with water, continuing for at least 15 minutes, occasionally lifting the upper and lower eyelids, to ensure thorough rinsing. After rinsing eyes with water, rinse once more with physiological saline (0.9% NaCl) solution. Remove contact lenses if possible and if safe to do. If hot product is splashed into the eye, it should be cooled immediately to dissipate heat, under cold running water. If irritation, blurred vision, tearing, redness or blinking persists, consult ophthalmologist immediately.

Following ingestion:
If the product has been swallowed, rinse mouth with water, do not induce vomiting. Keep affected person warm and treat for shock. Loosen tight clothing such as collar, tie, belt or waistband to prevent any breathing restrictions. If the person is conscious, give him/her small quantities of water to drink. Never introduce anything into the mouth of an unconscious person. Independent of the dose taken call a doctor to the site of the accident. Delayed effects after exposure: patient should be kept under medical review for at least 48 hours.

Self-protection of the first aider:
Pay attention to self protection. Comply with general hygiene requirements. Avoid inhalation of dust and vapour. Product contact with eyes is prohibited. Avoid repeated or prolonged contact with skin or clothing. Wear suitable protective clothing and gloves.

4.2. Most important symptoms and effects, both acute and delayed:

Following inhalation: Can cause irritation.

Following skin contact: Dry skin and irritation may arise in case of repeated or prolonged exposure. May cause burns in case of contact with product at high temperature.

Following eye contact: Irritation, reddening and corneal turbidity might occur. May cause burns in case of contact with product at high temperature.

Following ingestion: Abdominal pain, stomach upset, nausea, vomiting and diarrhea may occour.

4.3. Indication of any immediate medical attention and special treatment needed:

Notes to doctor:
Treat Symptomatic. Inhalation of fire and thermal decomposition gases, containing oxides of nitrogen and carbon, can cause irritation and corrosive effects on the respiratory system. Some lung effects may be delayed.

SECTION 5. Firefighting measures.

5.1. Extinguishing media:

Suitable extinguishing media:
Use the most efficient and the most suitable extinguishing agent for surroundings to extinguish the fire where product is involved. All standard agents are acceptable: Water spray, water fog, carbon dioxide (CO_2), chemical foam and dry fire powder. Sand or earth may be used for small fires only. Product is combustible.

Unsuitable extinguishing media:
Full water jet – that could cause splattering and spread the fire. Simultaneous use of foam and water on the same surface needs to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture:

Hazardous combustion products:
Hazardous combustion products may include: A complex mixture of airborne solid and liquid particles and gases (smoke, carbon monoxide (CO), carbon dioxide (CO_2) and nitric oxides (NO_x)) as well as unidentified organic and inorganic compounds. Short-term expousures to smoke and gases may lead to irreversible lung injury without early signs of symptoms.

5.3. Advice for firefighters:

Special protective equipment for fire-fighters:
Do not enter fire area without proper protective equipment, including respiratory protection. When the potential chemical hazard is unknown, in enclosed or confined spaces, a selfcontained breathing apparatus should be worn (SCBA). During thermal destruction, irritating and poisonous gases can be released, therefore use SCBA with a comprehensive facial mask, and protective fire-fighting clothing (including: fire helmet, overalls, pants, boots, gloves, eye and face protection.) must be worn.

Fire fighter's clothing conforming to European standard **EN469** provides a basic level of protection for chemical incidents and includes helmets, protective boots and gloves. Clothing not conforming to **EN469** may not be suitable in any

chemical incident. Use SCBA with a chemical protection suit only where personal (close) contact is likely to happen. Use SCBA with gas-tight suit when in close proximity to the substance or if its vapors is likely to arise.

5.4. Additional information:
Stay down-wind during firefighting. Promptly isolate the scene by removing all unauthorized persons from the area of the incident if there is a fire. Shut down all sources of ignition. A pressure increase will occur if containers are exposed to heat, therefore decomposition of product can result in rupture of container, it may burst. Cool containers with a cold water spray. If there is no risk, move the containers away from the heat source. Prevent any contamination of product with other combustible materials. Stop spill/release if it can be done with minimal risk. If possible, collect used extinguishing water separately, to prevent it from entering drains. Contaminated water can cause environmental damage. Water mist may be useful in minimizing or dispersing vapors.

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures:
For non-emergency personnel:
Put on appropriate protective equipment (see Section 8.). Consult an emergency expert. Eliminate sources of ignition. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering the area. Avoid walking through spilled product. Avoid contact with spilled or released material. Spillages make surfaces slippery.

For emergency responders:
Wear appropriate protective equipment (see Section 8.), to prevent contact with the substance and inhalation of fumes or mist. Ensure to supply adequate ventilation and fresh air in closed rooms. Eliminate sources of ignition and heat (electricity, sparks, fires, flares). Stop leak if possible, without risk. Isolate and evacuate the danger zone, reduce the presence of persons, who are not involved in the rescue operation. Spillage can be slippery, be aware of slipping.

6.2. Environmental precautions:
Severe hazard to waters.Take care to avoid the contamination of water courses and drains and in case of accidental spill into the water supply, inform local authorities immediately, to stop the water supply and use. Avoid subsoil penetration. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up:
For containment:
When inside buildings or confined space ensure adequate ventilation is provided. Stop leak if possible and safe to do. Clogging or cover drains. If contaminated with other substances, remove mechanically or scoop as much product as possible in to tight and secure containers. After containing the substance, rinse the area with plenty of water. Absorb remains in absorbent non-combustile material, place the used absorbent in closed, secure and suitable containers. In case of soil contamination, remove contaminated soil for remediation or disposal according to local regulations. In case of small spillages in closed waters (i.e. ports), contain product with floating barriers.

For cleaning up:
Recover the product by shoveling or scooping and place in appropriate and marked container to be recycled or disposed. After containing spill, clean up remains with water and mop up. In the case of small spills, wipe the surface with non-combustile absorbent material (dry sand), clean surface with water and then clean with general cleaning products afterwards. If uncontaminated, recover and reuse product. Do not collect spilled material in sawdust or other combustible material. Practice good housekeeping – spillage can be slippery.

6.4. Other information:
See Section 8 for personal protective equipment and Section 13 for waste disposal.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling:
Protective measures:
Warn personnel about the dangers of the product. Use only in well ventilated areas. Handle opened container with care, close after use. Handle in accordance with good industrial hygiene and safety procedures. Avoid contact with the skin and eyes. Avoid repeated or prolonged contact with skin and lungs. Avoid inhalation of mist. Use appropriate protective

equipment: protective clothing, gloves, goggles and respirator if necessary (see Section 8.). Do not transport together with incompatible substances. Avoid spilling or spraying in enclosed spaces. Avoid splashing and splash filling of bulk volumes. Spilled producēt may be slippery.

Measures to prevent fire:
This substance is not flammable, but is combustile. Keep product away from sources of heat or ignition. Follow preventative fire protection regulations. Use with adequate ventilation. Local exhaust ventilation should be provided. Take precautionary measures against static discharges. Work clothing that becomes wet should be immediately removed due to its combustion hazard. Empty containers may contain combustible product residues. Do not weld, solder, drill, cut or perform similar operations unless they have been properly cleaned.

Measures to prevent aerosol and dust generation:
Use adequate ventilation. A local exhaust ventilation system must be used. Avoid spraying in enclosed spaces.

Measures to protect the environment:
Clean your shoes at special cleaning points after exiting storage area or area where product has been used. Do not allow product to enter surface water, groundwater, sewage system or soil. Sufficient ventilation must be guaranteed for refilling, transfer, or open use. Air ventilation systems should be equipped with filters.

Advice on general occupational hygiene:
Provide adequate ventilation in areas where vapour is formed. Avoid contact with eyes, skin and clothing. Provide easy access to water supply and eye wash facilities, show where to locate those. Wash your hands and face with mild soap and water after use, before breaks, at the end of the working day. Remove contaminated clothing and protective equipment before entering kitchen areas. Keep working clothes separately. “NO SMOKING” signs should be placed in the working area. Regular cleaning of equipment, work area and clothing is recommended. Use protective equipment while cleaning. Do not eat, drink or smoke when using the product and in areas where product is handled, stored and processed. Do not store with food, drinks or animal food.

7.2. Conditions for safe storage, including any incompatibilities:

Technical measures and storage conditions:
Product has to be stored in indoor warehouses. Do not store close to heat sources, sparks or fire. Storage temperature – can be stored at lowered and ambient temperatures (from -60°C up to +45°C). Protect containers against physical damage. Protect against moisture, as well as stored away from direct sunlight. Containers have to be labelled clearly and permanently. Good general ventilation should be sufficient to control worker exposure to vapor. If this product exceeds exposure limits, use process enclosures: local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. Ground containers and transfer equipment to eliminate static electric discharge.

Packaging materials:
Suitable packing material: Aluminium, iron, copper, glass, polypropylene (PP), polytetrafluoroethylene (PTFE), polyfluoroethylene (PFE), vinylidene fluorides (PVDF), high density polyethylene (HDPE), polyethylene (PE), polysulfone (PSU). For containers, or container linings use mild steel, stainless steel.

Non suitable packaging materials: No data availabale.

Product can be packed in the package chosen by the buying customer, as long as it is clean and ensures safe transportation and storage of the product.

Requirements for storage rooms and vessels:
Store product protected from direct sunlight in a dry, cool and well-ventilated warehouses. Keep containers tightly closed when not in use. Keep containers protected from physical damage. Check regularly for leaks. Keep preferably in the original container. Do not remove the hazard labels of the containers (even if they are empty). Do not store in unlabeled containers. Empty containers may contain combustible product residues. Do not weld, solder, drill, cut or perform similar operations unless they have been properly cleaned. Filled containers may be stored in open storage sites only when it is protected from direct sunrays and atmosphere precipitation (rain, snow and moisture). Contact your local authorities for further information on storage requirements.

Storage class: Storage class 10 (Combustible liquids as far as not in storage class 3)

Further information on storage conditions:

Product has a shelf life of 3 years, if in unopened manufacturers packing, if stored in a cool and dry location and away from direct sunlight. Collocated storage with the following substances is prohibited: Pharmaceuticals; food; animal feeds; infectious and radioactive substances; highly flammable gases; highly flammable liquids; flammable liquids; highly toxic and toxic substances; unpacked flammable dusts or granulates; combustible materials; oxidizing substances; strong acids; alkalais; metal powders; chlorates; permanganates; sulphur and sulphides.

7.3. Specific end use(s):

Use only as hydraulic oil for industrial equipment.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters:

Components with workplace control parameters:

Component	CAS No.	Control parameter; value		Base
		OEL 8h.	Short term, 15 min.	
White mineral oil	8042-47-5	0.7 ppm; 5 mg/m^3	2.8 ppm; 20 mg/m^3	Occupational health and safety requirements for exposure to chemicals at work spaces.

DNEL values of exposure to human health:

DNEL of the product is not determined. The physicochemical properties and DNEL values of the pure white mineral oil, contained in product, which could have the most negative effect, are provided, according to REACH dossier.

Mode of exposure	Type of exposure	DNEL value (workers)	DNEL value (public consumers)	The most negative physicochemical effect
Inhalation	Acute effect, systemic	(iii)	(iii)	Not applicable.
Inhalation	Acute effect, local	(iii)	(iii)	Not applicable.
Inhalation	Chronic effect, systemic	160 mg/m³	35 mg/m³	Repeated dose toxicity.
Inhalation	Chronic effect, local	(iii)	(iii)	Not applicable.
Dermal	Acute effect systemic	(iii)	(iii)	Not applicable.
Dermal	Acute effect, local	(iii)	(iii)	Not applicable.
Dermal	Chronic effect, systemic	220 mg/kg bw/day	93 mg/kg bw/day	Repeated dose toxicity.
Dermal	Chronic effect, local	(iii)	(iii)	Not applicable.
Through eyes	Acute effect, local	(iii)	(iii)	Not applicable.
Oral	Acute effect, systemic	(ii)	(iii)	Not applicable.
Oral	Acute effect, local	(ii)	(iii)	Not applicable.
Oral	Chronic effect, systemic	(ii)	40 mg/kg bw/day	Repeated dose toxicity.
Oral	Chronic effect, local	(ii)	(iii)	Not applicable.

i) hazard identified but no DNEL available; ii) no exposure expected; iii) no hazard identified

Predicted no effect contrentation values:

PNEC value of the product is not determined. PNEC values of pure white mineral oil, contained in product, according to REACH dossier, are provided.

Environmental protection target	PNEC value
Fresh water	(iii)
Freshwater sediments	(iii)
Marine water	(iii)
Marine sediments	(iii)
Food chain	(ii)
Microorganisms in sewage treatment	(iii)
Soil (agricultural)	(iii)
Air	(ii)
i) hazard identified but no PNEC available; ii) no exposure expected; iii) no hazard identified.	

Based on evaluation of all the ecological toxicity data discussed above, white mineral oil does not meet the criteria for classification as an environmental hazard under the EU CLP Regulation (EC No. 1272/2008).

8.2. Exposure controls:

Appropriate engineering controls:

Good general ventilation should be provided to control worker exposure to airborne contaminants of vapor or mists, especially in confined spaces. Adhere to good industrial hygine rules when using or handling the product. Provide access to water, hand-wash facilities and showers at the places where the product is stored, as well as maintain easy access to eye wash. Do not use tools that can generate sparks and flames, avoid static electricity, use tools that are grounded. Do not expose the container to mechanical damage.

Emissions from ventilation or work process equipment should be recommended to checked to ensure they comply with the requirements of environmental protection legislation. In some cases filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal protection equipment:

Eye and face protection: Sufficient eye protection should be worn. Use eye and face accessories that have been tested and approved in accordance with relevant standards such as: NIOSH (US) or EN 166 (EU). It is recommended to use polycarbonate safety glasses, goggles, tightly fitting goggles or face shield.

Body protection: Choose the type of body protection according to the situation, concentration and quantity of the hazardous substance, and the specific concentration at the workplace. Wear an apron or a lab coat. Workwear must comply with EN ISO 13688 standard and special work shoes must comply with EN ISO 20347:2012 standard. It is recommended to use impervious, flame retardant or antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows, air-purifying respirators are appropriate, use a half-face or full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) or just P2 – white colour code (LVS EN 141, LVS EN 136) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and accessories tested and approved in accordance with relevant national and international standards, NIOSH (USA) or CEN (EU).

Skin protection:

The use of resistant protective gloves is recommended. Skin protection cremes do not protect as effectively against the substance as protective gloves. Textile or leather gloves are completely unsuitable. Therefore suitable protective gloves should be preferred. Gloves should be inspected before use. Use appropriate glove removal techniques (without touching the inside of the glove) to avoid contact with the product. Dispose of contaminated gloves after use in accordance with applicable laws and good industrial practice. Wash and dry your hands. The gloves used must be chemically resistant in accordance with EN 420, EN ISO 374-1 and must be mechanically resistant in accordance with EN 388 standard. Protective gloves must be made of one of the materials, with the relevant specifications listed in the table below:

Glove material	Glove Thickness (mm)	Penetration time (min)
Buthyl rubber	0.30	>60
Nitrile rubber/ Nitrile latex	0.40	>60

Fluorocarbon rubber	0.40	>60
Polychloroprene	0.50	**<60**
Natural rubber/Natural latex	0.50	**<30**
Polyvinyl chloride	0.50	**60**
Neoprene	0.50	>60

When the work is finished, the gloves must be cleaned and washed thoroughly before they are dry. After work, care must be taken to the hand skin.

*Please note that the penetration time of the glove material in this section has been set at 22°C and using pure white mineral oil. When working at a higher temperature, the resistance of the glove material may be considerably lower, and in such cases, the permitted life of the glove must be shortened. A 1.5-times increase / decrease in the layer thickness doubles / halves the breakthrough time. This data only applies to the pure substance. We recommend that when you start using a new type or other manufacturer's gloves, make sure that they are chemically and mechanically resistant to working conditions. If you have any doubt about the suitability of the gloves, please contact the suppliers of gloves. Transferred to mixtures of substances, these figures should only be taken as an aid to orientation.

Thermal hazards: Non flammable, combustile at high temperatures.

8.3. Environmental exposure controls:

Do not allow product to enter drains, surface waters or ground waters. See Section 6. for substance related measures to prevent exposure to environment.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties:

a) **Appearance**: Amber (light brown) liquid at 20°C and a pressure of 1013 hPa.
b) **Odour:** Mild oil odour.
c) **Odour threshold:** Not specified.
d) **pH:** Not specified.
e) **Melting/freezing point:** -60°C to -30°C (-40°C thickening point).
f) **Initial boiling point and boiling range:**
218°C to 800°C (Pure white mineral oil -ASTM D 1160 (CONCAWE, 2010a)).
g) **Flash point:** 112°C to 268°C (Open Cup, ASTM D-92).
h) **Evaporation rate:** Not specified.
i) **Flammability:** Not classified as flammable according to CLP Regulation (EC No. 1272/2008).
j) **Upper/lower flammability or explosive limits:**
Not specified.
k) **Vapour pressure:** ≤0.01 kPa at 20°C (Pure white mineral oil, (CONCAWE, 2010a)).
l) **Vapour density:** Not specified.
m) **Relative density:** 810 to 894 kg/m^3 at 15°C (CONCAWE, 2010a).
n) **Solubility:** Insouble in water.
o) **Partition coefficient: n-octanol/water:**
Not specified.
p) **Auto-ignition temperature**:
325°C to 355°C (Pure white mineral oil. ASTM E 659, CONCAWE, 2010a).
q) **Decomposition temperature**:
Not specified.
r) **Viscosity:** 21 to 99.8 mm^2/s at 40°C (Pure white mineral oil ,CONCAWE, 1993).
3.08 to 15 mm^2/s at 100°C (CONCAWE, 1997).
s) **Explosive properties:** Not explosive.
t) **Oxidising properties:** Does not have oxidising properties.

9.2 Other safety information: None.

SECTION 10. Stability and reactivity.

10.1. Reactivity:

Stable under regular conditions of transportation and use (see Section 7. “Handling and Storage”).

10.2. Chemical stability:
Stable under storage, transportation and using conditions at lowered and normal ambient temperatures (-60°C to + 45°C), (see Section 7. "Handling and Storage").

10.3. Possibility of hazardous reactions:
No hazardous reactions will occour when handled and stored according to provisions.

10.4. Conditions to avoid:
Avoid direct sunlight, heat, high temperatures, flames, sparks and incompatible materials. Do not damage product containers.

10.5. Incompatible materials:
Store separately from strongly **oxidizing substances** of storage class 5.1A and any **oxidizing agents**, such as chlorine, nitric acid, permanganates, bromine pentafluoride, nitrosyl perchlorate or chromate solutions. Store away from **strong acids**, infectious, radioactive and explosive substances. The substance should not be stored with substances with which hazardous chemical reactions are possible.

10.6. Hazardous decomposition products:
Product forms nitric oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO_2) and unidentified organic compounds when burnt. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects:
Acute toxicity studies of the product are not available. As the product is mixture ofwhite mineral oil, information on acute toxicity, according to REACH dossier, is provided of pure white mineral oil.

Acute toxicity:
Effects on humans: No data available.
Effects on animals:

Routes of exposure	Exposure dose, concentration	Species	Method	Symptoms, effects	Remark
Acute oral toxicity	LD50: 5000 mg/kg bw	Rat	OECD 401	No adverse effect observed.	ECHA
Acute inhalation toxicity	LC50: 5 mg/L air	Rat	OECD 403	No adverse effect observed.	ECHA
Acute dermal toxicity	LD50: 2000 mg/kg bw	Rabbit	OECD 402	No adverse effect observed.	ECHA

Other information: For more details, see relevant substances, contained in product, at ECHA.
Assessment / Classification: After studying all the routes of exposure and according to CLP, the substance is not considered to make acute toxicity and does not meet the criteria for classification.

Skin corrosion/irritation:
Effects on humans: No data available.
Effects on animals:

Exposure type	Exposure time	Observation time	Species	Method	Symptoms, effects	Remark
Single application of 0.5 mL of pure white mineral oil	24 h	24 h and 72h	Rabbit (New Zealand White)	OECD 404	No adverse effect observed.	ECHA

Other information: Skin may become dry after contact with the product.
Assessment / Classification: Following the studied routes of exposure, product is not classified as a skin irritant, according to Regulation (EC) No 1272/2008 (CLP).

Serious eye damage/irritation:

Effects on humans: No data available.

Effects on animals:

Exposure type	Exposure time	Observation time	Species	Method	Symptoms, effects	Remark
Single drop of 0.1 ml	Held in the eye for 20 to 30 seconds	24h, 48h, 72h, day4 , day 5, and day 7.	Rabbit (New Zealand white)	OECD 405	No adverse effect observed.	ECHA

Other information: For more details, see relevant substances, contained in product, at ECHA.

Assessment / Classification: Based on a lack of corneal and iridial irritation, and a conjunctival irritation, product does not meet the criteria for classification as an eye irritant as defined by the EU CLP Regulation **(EC No. 1272/2008).**

Respiratory or skin sensitisation:

Effects on humans: No data available.

Effects on animals:

Exposure dose, concentration	Exposure time	Obserbvation time	Species	Method	Symptoms, effects	Remark
Administration of 0.5 ml white mineral oil on skin	6h	24h and 48h	Guinea pig (Hartley)	OECD 406	No adverse effect observed.	ECHA

Other information: No data available.

Assessment / Classification: Based on the available data, product is not considered to be a skin sensitizer and is therefore not subjected for labelling and classification requirements according to Regulation (EC) No 1272/2008.

Germ cell mutagenicity:

Effects on humans: No data available.

Effects on animals: For more details, see relevant substances, contained in product, at ECHA.

Other information: No data available.

Assessment / Classification:

Based on in vitro and in vivo mutagenicity data, product is not classified as mutagens under EU CLP Regulation **(EC No. 1272/2008).**

Carcinogenicity:

Effects on humans: No data available.

Effects on animals: See ECHA for more detailed description of studies of carcinogenicity.

Other information: For more details, see relevant substances, contained in product, at ECHA.

Assessment / Classification: Product is not considered to be classified for carcinogenicity under Regulation (EC) No 1272/2008. There is no evidence from animal studies that product is carcinogenic.

Reproductive toxicity:

Effects on humans: No data available.

Effects on animals: For more details, see relevant substances, contained in product, at ECHA.

Other information: Dermal administration of white mineral oil had no adverse effects on reproductive parameters or development of pups in a one-generation study.

Assessment / Classification:

Based on the results of studies performed according to OECD 422 guideline and GLP principles, exposure to product is unlikely to affect fertility. Based on available data, the classification criteria are not met.

Summary of evaluation of the CMR properties:

Effects on humans: No data available.

Effects on animals: No data available.

Other information: For more details, see relevant substances, contained in product, at ECHA.

Assessment / Classification: Based on available data, the product does not meet the criteria to be classified as a mutagenic, category 1A or 1B mutagen according to Regulation (EC) No 1272/2008 (CLP).

STOT-single exposure:

Effects on humans: No data available.
Effects on animals: No data available.
Other information: For more details, see relevant substances, contained in product, at ECHA.
Assessment / Classification:
Product is not classified for STOT SE category 1, according to Regulation (EC) No 1272/2008 (CLP).

STOT-repeated exposure:

Effects on humans: No data available.
Effects on animals: For more details, see relevant substances, contained in product, at ECHA.
Other information: No data available.
Assessment / Classification: Based on the lack of adverse affects, even with the highest doses administered, an oral chronic NOEL of ≥ 1200 mg/kg bw/day, and a dermal subchronic NOAEL of ≥ 2000 mg/kg bw/day, white mineral oil is not classified under EU CLP Regulation **(EC No. 1272/2008).**

Aspiration hazard:

Effects on humans: No data available.
Effects on animals: No data available.
Other information: Aspiration can cause lung edema and pneumonitis.
Assessment / Classification: Based on available data, the classification criteria are not met.

SECTION 12. Ecological information.

12.1 Toxicity:

Studies of ecological impact of the product are not available. As the product is mixture of white mineral oil, information about ecological impact, according to REACH dossier, is provided of white mineral oil.

Acute (short-term) toxicity:

Target parameter	Value	Species	Method	Exposure time	Remark
LL50	10 000 mg/L.	Freshwater fish - Leuciscus idus melantous L	OECD 203	96 h	ECHA
LL50	100 mg/L	Freshwater fish - Oncorhynchus mykiss	OECD 203	96 h	ECHA
LL50	100 mg/L	Marine invertebrates - Daphnia magna	-	48 h	ECHA
LC50	100 mg/L	Algae - Pseudokirchneriella subcapitata	OECD 201	72 h	ECHA

Chronic (long-term) toxicity:

Target parameter	Value	Species	Method	Exposure time	Remark
LC50	1, 10, 100 and 1000 mg/L.	Water invertebrates - Daphnia magna	OECD 211	21 days	ECHA

12.2. Persistence and degradability:

Biodegradation: No data available.
Aerobic: No data available.
Anaerobic: No data available.
Hydrolysis: No data available.
Photolysis: No data available.
***Other information*:** No data available.

12.3. Bioaccumulative potential:

Partition coefficient n-octanol /water (log Kow): No data available.
Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil:

Known or predetermined prevalence in environmental compartments: No data available.
Surface tension: No data available.
Adsorption / Desorption: No data available.

The substance has low mobility in soil. Product has poor soluibility in water.

12.5. Results of PBT and vPvB assessment:

In accordance with Regulation (EC) No 1907/2006, Annex XIII, the product does not meet the PBT and vPvB criteria and is not a PBT or vPvB substance. No PBT and vPvB assessment has been conducted since product is not in the list of (EC) No 1907/2006, Annex XIII.

12.6. Other adverse effects: No data available.
12.7. Additional information: No data available.

SECTION 13. Disposal considerations.

13.1 Waste treatment methods:

Product / Packaging disposal:

In accordance to annex III of "Commission notice on technical guidance on the classification of waste" **(2018/C 124/01)**, product, without any impurities, **doess not** have hazardous properties. In accordance to Commission decision **(2014/955/EU)** and Republic of Latvia Cabinet of Ministers Regulation **No. 302**, the product, without any impuritiues, **is** classified as hazardous waste (see EWC codes).

Depending on the type and degree of contamination, if unpolluted, dispose of product by handing it over to licensed waste managers.

Collection of small amounts of products: Place in a collection container for halogen-free oils. Collection vessels must be clearly labelled with a systematic description of their contents. Store the vessels in a well-ventilated location away from direct exposure of sun.

Empty the product containers, free them from as much of the product as possible. The packing needs to be cleaned. In accordance with Regulation **(EC) No. 1357/2014,** empty packaging, clean from product, is classified as non-hazardous waste. Re-use, recycle and dispose clean packing material. If packing contains product or is contaminated, or if packing cannot be cleaned, dispose of it as unused product. Dispose of product and its packaging safely in accordance with regional and national environmental regulations. Waste from product packaging must be handed over to waste management companies. Contact nearest waste disposal facility for further instructions.

Waste codes / waste designations according to EWC:

According to the European Waste Catalog (EWC) and European List of Waste (LoW), the applicable codes for product are:
13 02 05 – Mineral-based non-chlorinated engine, gear and lubricating oils (AH – absolute hazard);
13 02 06 – Synthetic engine, gear and lubricating oils (AH – absolute harzard);
13 02 08 – Other engine, gear and lubricating oils (AH – absolute harzard);
15 01 02 – Plastic packaging (MN – Mirror non-hazardous);
15 01 04 – Metallic packaging (MN – Mirror non-hazardous);
15 01 10 – Packaging containing residues of or contaminated by hazardous substances (MH – Mirror hazardous).

These codes are only indicative, as it depends on the intended use by the user.

Sewage disposal-relevant information:

Waste should not be disposed of by release into sewers.

Other disposal recommendations:
It is the responsibility of the waste treatment company to make a final decision on the relevant waste management, disposal or recycling method in accordance with regional, national or European legislation and possible adaptation to local conditions.

SECTION 14. Transport information.

ADR	IMDG	ICAO-TI/IATA-DGR	ADN	RID
14.1. UN Number:				
Not applicable.				
14.2. UN proper shipping name:				
Not applicable.				
Transport document description:				
Not applicable.				
14.3. Transport hazard class(es):				
Not applicable.				
14.4. Packing group:				
Not applicable.				
14.5. Environmental hazards:				
Not applicable.				

14.6. Special precautions for users:

ADR: Not applicable.
IMDG: Not applicable.
ICAO-TI/IATA-DGR: Not applicable.
ADN: Not applicable.
RID: Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

Not applicable.

SECTION 15. Regulatory information.

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

- Regulation (EC) No. **1907/2006** of the European Parliament and Council of 18. December 2006 on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH);
- Regulation (EC) No. **1272/2008** - Classification, labelling and packaging of substances and mixtures (CLP);
- Commission regulation (EU) No. **1357/2014** of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives;
- Regulation **649/2012/EU** concerning the export and import of hazardous chemicals (PIC);
- Regulation **850/2004/EC** on persistent organic pollutants (POP);
- European Agreement concerning the International Carriage of Dangerous Goods by Road **(ADR**);
- European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (**ADN**);
- Commission notice on technical guidance on the classification of waste **2018/C 124/01**;
- Directive **2008/98/EC** of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives;
- Regulation (EC) **No. 166/2006** of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC;
- **2014/955/EU:** Commission Decision of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council Text with EEA relevance;
- Seveso III Directive **2012/18/EU** - Technological Disaster Risk Reduction:

International regulations:

- Regulations concerning the International Carriage of Dangerous Goods by Rail (**RID**);
- International Maritime Dangerous Goods Code (**IMDG**);
- Internationall Aviation Transport Association regulations (**IATA-DGR**);
- International Civil Aviation organization provisions **(ICAO-TI)**;
- International Convention for the Prevention of Pollution from Ships (**MARPOL 73/78**);
- International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk(**IBC**).

National regulations (Latvia):

- Chemical Substances Law;
- Republic of Latvia Cabinet of Ministers Regulation **No. 795**: "Procedures for Registration of Chemical Substances and Mixtures and Their Database";
- Republic of Latvia Cabinet of Ministers Regulation **No. 325**: "Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces";
- Republic of Latvia Cabinet of Ministers Regulation **No. 302:** "Provisions regarding the waste classification and the characteristics rendering the hazardous waste";
- Republic of Latvia Cabinet of Ministers Regulation **No. 107**: "Procedure for Classification, Labeling and Packaging of Chemicals and Chemical Products";
- Labour Protection Law;
- **LVS EN 149 + A1:2009** - Standard for disposable dust respirators with or without valve according to which they are labeled with FFP1, FFP2 or FFP3 depending on protection class;
- **LVS EN 143:2002 + AC/AC:2005** - Standard for dust filters P1, P2, P3 for use with half masks and full face masks;
- **LVS EN 14387:2004+A1:2008** - Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking;
- **EN 420** – The standard of glove safety;
- **LVS EN 388** – "Protective gloves against mechanical effects";
- **EN469** – Protective clothing for firefighters - Requirements for firefighting protective clothing;
- **LVS EN ISO 374-1** – "Protective gloves against dangerous chemicals and microorganisms";
- **LVS EN 166:2002** – "Individual eye protection. Specifications ";
- **LVS EN ISO 13688** – "Protective clothing - General requirements;
- **LVS EN ISO 20347:2012** – "Personal protective equipment - Occupational footwear".

15.2. Chemical safety assessment:

No chemical Safety Assessment has been carried out for this substance.

SECTION 16. Other information.

16.1. Indication of changes:

Date of issue: **30.12.2019.**
Date of revision: **30.12.2019.**
Version: **1.0.**

16.2. List of abbreviations and acronyms used throughout the Safety Data Sheet:

CPR – Artificial respiration or cardiopulmonary resuscitation;
SCBA – Self-contained breathing apparatus;
OEL – Occupational exposure limit;
DNEL – Derived njo effect level;
PNEC – Predicted no effect contrentation;
STOT – Specific target organ toxicity;
CMR – Carcinogenic, mutagenic and reprotoxic chemicals;
LD50 – Median lethal dose;
LC50 – Median lethal concentration;
EC50 – Median effective concentration;
PBT/ vPvB – Persistent, bioaccumulative and toxic and very persistent and very bioaccumulative;
OECD – Organisation for Economic Co-operation and Development;
PPM – Parts per million;

BW – Body weight;

16.3. Key literature references and sources for data:
Toxnet, ECHA, GESTIS substance database.