MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME **MARINE CYLINDER OIL (SAE 50/70 TBN and above)** SAE **More than 50**

Product Use Marine cylinder oil/IC Engine Oil **Product Number**

Uses advised against: Restricted to Professional Users

Company Identification

United Grease and Lubricants Co LLC, PO Box 2685, Ajman, United Arab Emirates. Www.unitedgrease.com

Transportation Emergency Response	**Health Emergency**	**Product Information**
(971)(54) 2171575	(971)(54)2171575	(971)(54)2171575

SECTION 2 HAZARDS IDENTIFICATION

Classification — As per hazardous according to 29 CFR 1910.1200 (2012)

Reproductive Toxicity, cat 1B — H 360

For full text of R and H statements, pl see section 16

Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May produce an allergic reaction. For specific information about the toxicological and ecotoxicolocal properties and classification of this product, see sect 11/12

EC Index No **N/A** EC No **N/A** CAS No **N/A** REACH Registration No **N/A**

SECTION 2 Label Elements

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

Hazard Pictograms (CLP)

GHS 08

CLP Signal word — Danger

Hazardous Ingredients and/or with relevant occupational exposure limits — Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, over-based, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light 0r heavy paraffinic C10-C50

Hazardous Statements (CLP) — H360 - May damage fertility or the unborn child.

Precautionary statements (CLP) — P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection

P308+P313 - IF exposed or concerned: Get medical advice/attention.

P405 - Store locked up.

P501 - Dispose of contents and container to according to national or local regulations

Other hazards (not relevant for classification)

This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures , takes place at temperatures which are higher than normal ambient levels. In case of contact with eyes this product may cause irritation. If the product is handled or used at high temperature contact with hot product or vapours may cause burns. Any substance, in case of accidents involving pressurized circuits and the like, may be accidentally injected under the skin, even without external damage. In such a case, the victim should be brought to an hospital as soon as possible, to get specialized medical treatment. Do not wait for symptoms to develop. In exceptional cases (i.e prolunged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H2S. This substance/mixuture does not meet the PBT criteria of REACH, Annex III

This substance/mixture does not meet the vPvB criteria of REACH, Annex III

COMPONENT	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
Residual oils (petroleum,) solvent-refined (64742-01-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
Calcium carbonate (471-34-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)

Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.This substance does not meet the criteria for classification as PBT or vPvB. The product should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII criteria (point 1.1)
calcium dihydroxide (1305-62-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII.This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII.
COMPONENT	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Residual oils (petroleum,) solvent-refined (64742-01-4)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Calcium carbonate (471-34-1)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
calcium dihydroxide (1305-62-0)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/Information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Notes — Composition/Information on ingredients
Mixture of hydrocarbons
Additives

Components/Name	Product Identifier	%	Classification according to regulation EC No. 1272/2008
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 19cSt at 40 °C).]	CAS 64742-65-0 EC No. 265-169-7 EC Index No 649-474-00-6 REACH no 01-2119471299-27	50 - 60	Not classified
Residual oils (petroleum,) solvent-refined (64742-01-4)	CAS 64742-01-4 EC No. 265-101-6 EC Index No 649-459-00-4 REACH no 01-2119488707-21	20 - 30	Not classified

Calcium carbonate (471-34-1)	CAS 471-34-1 EC No. 207-439-9 EC Index No N/A REACH no 01-2119486795-18-0059	1-5	Not classified
Benzenesulfonic acid, di-C10-14-alkyl derivs., calcium salts	CAS NA EC No. 939-603-7 EC Index No N/A REACH no 01-2119978241-36	1-3	Not classified
Mineral base oil, severely refined	CAS NA EC No. NA	0.5-0.9	Not classified
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	CAS 701-251-5 EC No. NA EC Index No NA REACH no 01-2119524004-56	0.8-1.25	Repr 1B, H 360 Aquatic Chronic 4, H 413
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	CAS 64742-65-0 EC No. 265-169-7 EC Index No NA 649-474-00-6 REACH no 01-2119471299-27	1-1.5	Not classified
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	CAS 70024-69-0 EC No. 274-263-7 EC Index No NA REACH no 01-21194926-28	0.5-0.9	Skin Sens 1B, H 317
calcium dihydroxide (1305-62-0)	CAS 1305-62-0 EC No. 215-137-3 EC Index No NA REACH no 01-21194975151-45	0.1-0.5	Skin Irrit 2, H 315 Eye Dam 1, H 318 STOT SE 2, H 335

Specific Concentration Limits

Components/Name	Product Identifier	Specific Concentration limits
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	CAS 70024-69-0 EC No. 274-263-7 EC Index No NA REACH no 01-21194926-28	(10<C<100) skin sens 1B, H 317

This product may be formulated with one or more of the following severely refined mineral base oils (not classified as hazardous)

CAS 64742-54-7: CAS 64742-65-0: CAS 64742-70-7

All these substances have a value <3% DMSO extract,according to IP 346

TBN > 300 mg KOH./g (D 2896)

Full text of H and EUH statements - see section 16

SECTION 4 - FIRST AID MEASURES

Description of first aid measures (FAM)

General In case of spontaneous vomiting, transport the victim to a hospital, to verify the possibility that the product has been aspired into the lungs.

After inhalation In case of disturbances owing to inhalation of vapours or mists, remove the victim from exposure, keep at rest; if necessary seek medical attention, Also see point 4.3

Skin Contact Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If inflammation or irritation persists, seek medical advice. In case of contact with hot product, cool affected part with plenty of cold water, and cover with guaze or clean cloth. Call a doctor orbring to a hospital. So not use salves or ointments, unless directed by the doctor. Body hypothermia must be avoid. Do not put ice on the burn

Eye contact Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. If irritation persists, seek medical advice. In case of contact with hot product, cool affected part with plenty of cold water, and cover with gauze or clean cloth. Call a doctor or bring to a hopsital. Do not use salves or ointments unless directred by the doctor

Ingestion Do NOT induce vomiting to avoid aspiration into the lungs. If the person is conscious, rinse mouth with water without swallowing. Keep at rest. Call for medical assistance or bring to a hospital. If the casualty is inconscious, place in the recovery position. In case of spontaneous vomiting, keep head low, to avoid the risk of aspiration into the lungs
Do not give anything by mouth to an unconscious person

Most important symptoms and effects, both acute and delayed

Symptoms / injuries (general indications) Symptoms / injuries (general indications)

Systems/Injuries after inhalation This product has a low vapour pressure, and in normal conditions at temperature the concentration in the air is negligible. A significant concentration may build up only if the product is used at high temperature, or in case of sprays and mists In these cases overexposure to vapours may cause irritation to airways, nausea and dizziness

Systems/Injuries after skin contact Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. Contact with hot product may cause thermal burns.

Symptoms/injuries after ingestion Accidental ingestion of small quantities of the product may cause irritation, nausea and gastric disturbances. Taking into account the taste of the product, however, ingestion of dangerous quantites is very unlikely.

Symptoms/injuries upon intravenous administration No information available.

Chronic symptoms May damage fertility. May damage the unborn child.

Indication of any immediate medical attention and special treatment needed

Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve. Seek medical attention in all cases of serious burns. If there is any suspicion of inhalation of H2S (hydrogen sulphide), Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Send patient to hospital. Immediately begin artificial respiration if breathing has ceased. Administer oxygen if necessary.

SECTION 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA Small-size fires: carbon dioxide, dry chemicals, foam, sand or earth. Large fires: foam or water fog (mist). These means should be used by trained personnel only. Other extinguishing gases (according to regulations)

UNSUITABLE EXTINGUISHING MEDIA Do not use water jets They could cause splattering, and spread the fire. Simultaneous use of foam and water on the same surface is to avoided as water destroys the foam

Special hazards arising from the substance or mixture

Fire Hazard This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures takes place at temperatures which are higher than normal ambient levels

Explosion Hazard In case of losses from pressurized circuits, the sprays may form mists. Take into account that in this case the lower explosion limit for mists is about 45 g/m³ of air

Combustion Products Incomplete combustion is likely to give rise to a complex mixture of airborne solids and liquid particulates, gases, including carbon monoxide, NOx, H2S and SOx,Oxygenated compounds (aldehydes, etc.),CaOx,ZnOx,POx.

Advice for firefighters

Firefighting instructions Shut off source of product, if possible. If possible, move containers and drums away from danger area. Spilled product which is not burning should be covered with sand or foam. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area

Special protective equipment for firefighters Personal protection equipment for firefighters (see also section 8) Self contained breathing apparatus

Other information In case of fire, do not discharge residual product, waste materials and runoff water: collect separately and use a proper treatment.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Stop or contain leak at the source, if safe to do so. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). Avoid accidental sprays on hot surfaces or electrical contacts. Avoid direct contact with released material. Keep upwind.

For Non emergency Personnel

Protective Equipment See section 8

Emergency Procedures 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.

For Emergency Responders

Protective equipment Small spillages: normal antistatic working clothes are usually adequate.

necessary heat resistant and insulated. Work gloves providing adequate chemical esistance, specifically to aromatic hydrocarbons. Gloves made of PVA are not water-resistant, and are not suitable for emergency use. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Antistatic non skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated. Work helmet. 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 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.

Emergency Procedures Notify local authorities according to relevant regulations.

Environmental precautions Do not let the product accumulate in confined or underground spaces. Do not let the product flow into sewers or water courses, or in any way contaminate the environment. In case of contamination of environment compartments (soil, subsoil, surface or underground waters), remove contaminated soil when possible, and in any case treat all involved compartments in accordance with local regulations.The site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

Methods and material for containment and cleaning up

Soil. Contain spilled liquid with sand, earth or other suitable absorbents (nonflammable).Recover free liquid and waste materials in suitable waterproof and oil resistant containers. Clean contaminated area. Dispose of according to local regulations. Water: Confine the spillage. Remove from surface by skimming or suitable floating absorbents. Collect recovered product and other waste materials in suitable waterproof, oil resistant containers. Recover or dispose of according to local regulations.

Other Information Do not use solvents or dispersants, unless specifically advised by an expert, and, if required, approved by local authorities. 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. Local regulations may also prescribe or limit actions to be taken. For this reason, local experts should be consulted when necessary.

Reference to other sections Refer to chapter 16

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling Ensure that all relevant regulations regarding handling and storage facilities of flammable products are followed. Do not use compressed air for filling, discharging, or handling operations. Keep away from heat/sparks/ open flames/hot surfaces. Use and store only outdoors or in a well-ventilated area. During transfer and mixing operations, ensure that all equipment is correctly grounded. Avoid the build-up of electric charges. Emptied containers can contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been drained and cleaned. Before entering storage tanks and commencing any operation in a

	confined area (e.g. tunnels), carry out an adequate clean-up, and check the atmosphere for oxygen content, flammability, and the presence of sulphur compounds. See also Section 16, "Other information".
Hygeine Measures	Avoid contact with skin. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not eat and do not drink during use. Do not clean hands with dirty or oil soaked rags. Do not re-use clothes, if they are still contaminated. Keep away from food and beverage
General Handling Information	Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water
Precautionary Measures	Keep out of reach of children
Static Hazard	Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vaccum truck operations) and use appropriate mitigating procedures
Container Warnings	Container is not designed to contain pressures. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid,liquid and/or vapour) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed off properly
Handling Temperature	0 to 65 deg C **Storage temperaure** 0 to 55 deg C
Conditions for safe storage, including any incompatibilities	
Stoage conditions	Store in dry, well ventilated area. Keep away from open flames, hot surfaces and sources of ignition. Do not smoke.
Incompatible Products	Keep away from Strong Anti Oxidants
Storage area	Storage area layout, tank design, equipment and operating procedures must comply with the local legislation. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution 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.
Package and Containers	If the product is supplied in containers: Keep containers tightly closed and properly labelled. Keep only in the original container or in a suitable container for this kind of product
Packaging Materials	For containers, or container linings use materials specifically approved for use with this product. Recommended materials for containers, or container linings use mild steel, stainless steel. 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.
Specific End Uses	No information available

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS

Residual oils (petroleum,) solvent-refined (64742-01-4)

ACGIH OEL TWA	5 mg/m3 (Mineral base oil mist, severely refined, DMSO extrat <3% m/m)
ACGIH OEL STEL	10 mg/m3 (Mineral base oil mist, severely refined, DMSO extrat <3% m/m)

Mineral base oil, severely refined

ACGIH OEL TWA	5 mg/m3 (Mineral base oil mist, severely refined, DMSO extrat <3% m/m)
ACGIH OEL STEL	10 mg/m3 (Mineral base oil mist, severely refined, DMSO extrat <3% m/m)

calcium dihydroxide (1305-62-0)

ACGIH OEL TWA	5 mg/m3 (respirable fraction)

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 19cSt at 40 °C).]

ACGIH OEL TWA	5 mg/m3 (Mineral base oil mist, severely refined, DMSO extrat <3% m/m)
ACGIH OEL STEL	10 mg/m3 (Mineral base oil mist, severely refined, DMSO extrat <3% m/m)

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

ACGIH OEL TWA	5 mg/m3 (Mineral base oil mist, severely refined, DMSO extrat <3% m/m)
ACGIH OEL STEL	10 mg/m3 (Mineral base oil mist, severely refined, DMSO extrat <3% m/m)

Monitoring Methods

Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts. Refer to relevant legislation and in any case to the good practice of industrial hygiene

DNEL AND PNEC

MARINE CYLINDER OIL (SAE 50/70 TBN and above)

Additional information Not applicable

Residual oils (petroleum,) solvent-refined (64742-01-4)

DNEL/DMEL (Workers)	
0,97 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	2,73 mg/m³
Long-term - local effects, inhalation	5,58 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0,74 mg/kg bodyweight/day
Long-term - local effects, inhalation	1,19 mg/m³
PNEC (Oral)	
PNEC oral (secondary poisoning)	9,33 mg/kg food

Calcium carbonate (471-34-1)

DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	6,36 mg/m³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	6,1 mg/kg bodyweight
Long-term - systemic effects,oral	6,1 mg/kg bodyweight/day
Long-term - local effects, inhalation	1,06 mg/m³
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

Benzenesulfonic acid, mono-C10-14-alkyl derivs., calcium salts (70024-69-0)	
DNEL/DMEL (Workers)	
Acute - local effects, dermal	1,04 mg/cm²
Long-term - systemic effects, dermal	25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	35,26 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, dermal	0,518 mg/cm²
Long-term - systemic effects,oral	2,5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	8,7 mg/m³
Long-term - systemic effects, dermal	12,5 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0,1 mg/l
PNEC aqua (marine water)	0,1 mg/l
PNEC aqua (intermittent, freshwater)	1 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	45211 mg/kg dwt
PNEC sediment (marine water)	45211 mg/kg dwt
PNEC (Soil)	
PNEC soil	47025 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	1000 mg/l
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	2,7 mg/m³
Long-term - local effects, inhalation	5,6 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0,74 mg/kg bodyweight/day
Long-term - local effects, inhalation	1,2 mg/m³/day
PNEC (Oral)	
PNEC oral (secondary poisoning)	9,33 mg/kg food
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	2,5 mg/kg bodyweight/day
Long-term - local effects, dermal	1,03 mg/cm²
Long-term - systemic effects, inhalation	0,332 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	0,833 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0,0589 mg/m³
Long-term - systemic effects, dermal	0,298 mg/kg bodyweight/day
Long-term - local effects, dermal	0,513 mg/cm²
PNEC (Water)	
PNEC aqua (freshwater)	1 mg/l
PNEC aqua (marine water)	1 mg/l
10 mg/l	
PNEC (Sediment)	
PNEC sediment (freshwater)	723500000 mg/kg dwt

PNEC sediment (marine water)	723500000 mg/kg dwt
723500000 mg/kg dwt	
PNEC (Soil)	
PNEC soil	868700000 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	16667 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

calcium dihydroxide (1305-62-0)

DNEL/DMEL (Workers)	
Acute - local effects, inhalation	4 mg/m³
Long-term - local effects, inhalation	1 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	4 mg/m³
Long-term - local effects, inhalation	1 mg/m³
PNEC (Water)	
PNEC aqua (freshwater)	490 µg/l
PNEC aqua (marine water)	320 µg/l
PNEC aqua (intermittent, freshwater)	490 µg/l
PNEC (Soil)	
PNEC soil	1080 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	3 mg/l

Notes The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

Control Banding

No additional information available

Exposure controls

Appropriate engineering controls

Ensure good ventilation of the work station. Before entering storage tanks and commencing any operation in a confined area (e.g. tunnels), carry out an adequate clean-up, and check the atmosphere for oxygen content and flammability. See also Section 16, "Other information".

PERSONAL PROTECTIVE EQUIPMENT

PPE for industrial and professional use

Gloves, Protective clothing, Safety glasses, Safety shoes or boots, Dust/aerosol mask




Eye/Face Protection	Chemical googles or face shield. EN 166. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure
Skin Protection	Long sleeved overalls. If necessary refer to EN 340 and related standards for definition of characteristics and performance according to the risk rating of the area. Antistatic non skid safety shoe or boots, chemical resistant, if necessary heat resistant and insulated
Hand protection	Protective gloves. Adequate materials: nitrile (NBR) or PVC with a protection index > 5 (permeation time > 240 mins). Use gloves respecting all the conditions and within the limits set by the manufacturer. Replace gloves immediately in case of cuts, holes or other signs of damages or degradation. If necessary, refer to the EN 374 standard. Personal hygiene is a key element for an effective hand care. Gloves must be worn only with clean hands. After wearing gloves, hands must be carefully washed and dried.
Respiratory Protection	Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: if the product is handled without adequate containment: use full or half-face masks with adequate filter for organic vapours. (EN 136/140/145). Combined gas/dust mask with filter type: EN 14387. Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145). Approved respiratory protection equipment shall be used in spaces where hydrogen sulphide may accumulate: full face mask with cartridge/filter type “B” (grey for inorganic vapours including H2S) or self-contained breathing apparatus (SCBA). (EN 136/140/145)

Thermal hazards

If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated.

Environmental exposoure controls

Do not discharge the product into the environment. Storage areas/installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Prevent discharge of undissolved substance to or recover from onsite wastewater. Onsite wastewater treatment required. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Attention: The data below are typical values and do not constitute a specification

Appearance	Bright and clear liquid
Color	Brown to Yellow

Physical State	Liquid
Odor	Slight Petroleum Odor
Odor Threshold	No data available
pH	Not applicable
Vapor Pressure	≤ 0.1 hPa (20 deg C)
Vapor Density (Air=1)	No data available
Initial Boiling Point	No data available
Solubility	Soluble in hydrocarbons, insoluble in water
Freezing Point	Not applicable
Melting Point	No data available
Density	0.88 to 0.99 kg/L @ 15°C (59°F) (Typical)
Viscosity	Upto 21.5 mm^2/s @ 100 °C (Typical)
Coefficient of Thermal expansion/°F	No data available
Evaporation Rate	No data available
Decomposition Temperature	No data available
Octanol/Water Partition Coefficient	No data available
VOC Content	0% (EU, CH)
FLAMMABLE PROPERTIES	
Flammability (Solid, gas)	Not applicable
Soldification temperature, deg C	-24 Pour Point
FlashPoint, (Cleaveland Open Cup)	180 °C (Minimum)
Autoignition	More than 300 deg C
Flammability (Explosive) Limits (& by volume in air)	
Lower	LEL ≥ 45 g/m3
Upper	No data available
Critical temperature	Not applicable for mixtures
Relative evaporation rate (butylacetate=1)	Negligible
Additional information	No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity This mixture does not offer any further hazard for reactivity, except what is reported in the following paragraphs

Chemical Stability Stable product, according to its intrinsic properties (under normal conditions of storage and handling)

Incompatibility with Other Materials: Strong oxidants

Hazardous decomposition Products: None known (none expected)

Possibility of Hazardous reactions None (in normal conditions of storage and handling). Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard.A mixture with nitrates or other strong oxidisers (eg chlorates, perchlorates, liquid oxygen) may create an explosive mass. Sensitivity to heat, friction or shock cannot be assessed in advance.

Conditions to avoid Keep away from strong oxidizers. Keep away from open flames, hot surfaces and sources of ignition. Avoid the build-up of electrostatic charge.

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Toxic fumes. In exceptional cases (i.e prolonged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H2S. See also Section 16, "Other information".

SECTION 101 - TOXICOLOGIAL INFORMATION (mixture)	
Acute toxicity (oral)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	Not classified (Based on available data, the classification criteria are not met)
Additional information	According to composition
Residual oils (petroleum,) solvent-refined (64742-01-4)	
LD 50 Oral rat	5000 mg/kg bodyweight
LD 50 dermal rat	2000 – 5000 mg/kg bodyweight
LC50 inhalation rat	2,18 – 5,53 mg/l/4h
Calcium carbonate (471-34-1)	
LD 50 Oral rat	2000 mg/kg bodyweight
LD 50 dermal rat	2000 mg/kg bodyweight
LC50 inhalation rat	3 mg/l/4h
Benzenesulfonic acid, mono-C10-14-alkyl derivs., calcium salts (70024-69-0)	
LD 50 Oral rat	>5000 mg/kg bodyweight (OECD 401)
LD 50 dermal rat	>2000 mg/kg bodyweight (OECD 402)
LC50 inhalation rat	> 1.9 mg/l/4h (OECD 403)
Mineral base oil, severely refined	
LD 50 Oral rat	>5000 mg/kg bodyweight (OECD 401)
LD 50 dermal rat	>2000 mg/kg bodyweight (OECD 402)
LC50 inhalation rat	> 5 mg/l/4h (OECD 403)
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	
LD 50 Oral rat	>5000 mg/kg bodyweight (OECD 401)
LD 50 dermal rat	>2000 mg/kg bodyweight (OECD 402)
LC50 inhalation rat	> 1.7 mg/l/4h (OECD 403)
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 19cSt at 40 °C).]	
LD 50 Oral rat	>5000 mg/kg bodyweight (OECD 401)
LD 50 dermal rabbit	2000 – 5000 mg/kg bodyweight
LC50 inhalation rat	3.9 – 5.3 mg/l/4h
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LD 50 Oral rat	>5000 mg/kg bodyweight (OECD 401)
LD 50 dermal rabbit	2000 – 5000 mg/kg bodyweight
LC50 inhalation rat	3.9 – 5.3 mg/l/4h
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	
LD 50 Oral rat	>5000 mg/kg bodyweight (OECD 401)

LD 50 dermal rabbit	>4000 mg/kg bodyweight (OECD 402)
LC50 inhalation rat	>1.67 mg/l/4h (OECD 403)
LC 50 Inhalation rat (vapours)	>1.67 mg/l/4h (OECD 403)
Serious eye damage/irritation	The eye irritation hazard is based on evaluation of data for product components
Skin Corrosion/Irritation	Not classified. PH lack of data
Additional information	(according to composition)
Skin Sensitization	Not classified. PH lack of data
Additional information	(according to composition) This product is formulated with a component containing one or more sensitizers. According to information provided by the supplier, test results on a similar formulation show that the finished product does not need to be classified as sensitizing. Total Base Number (TBN): > 300 mgKOH/g (ASTM D 2896) not sensitising. On basis of test data. Contains a sensitizer 1A.
Germ Cell Mutagenicity	Not classified (Based on available data, the classification criteria are not met)
Additional information	(according to composition)
Carcinogenicity	Not classified (Based on available data, the classification criteria are not met)
Additional information	(according to composition)

This product contains : Lubricating oils (petroleum), C24-50, solvent-extd, dewaxed, hydrogenated; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by solvent extraction and hydrogenation of atmospheric distillation residues. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C24 through C50 and produces a finished oil with a viscosity in the order of 16cSt to 75cSt at 40 °C (104 °F).], Residual oils (petroleum) solvent-refined; Baseoil— unspecified; [A complex combination by hydrocarbons obtained as the solvent insoluble fraction from solvent refining of a residuum using a polar organic solvent such as phenol or furfural. It consists of hydrocarbons having carbon numbers predominantly higher than C25 and boiling above approximately 400°C (752°F).], Distillates (petroleum), hydrotreated heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil of at least 100 SUS at 100°F (19cSt at 40°C). It contains a relatively large proportion of saturated hydrocarbons.], Distillates (petroleum), solvent-refined heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained as the raffinate from a solvent extraction process. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity of at least 100 SUS at 100 °F (19cSt at 40 °C).] this product has a value of DMSO extract < 3 % wt, according to IP 346. According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic. All the mineral base oils contained in this product have a value < 3 % wt of DMSO extract, according to IP 346 (Nota L - Annex VI Reg (CE) 1272/2008, # 1.1.3) No carcinogenic effect

Reproductive Toxicity	May damage fertility or the unborn child
Additonal information	(according to composition)
This product contains:	(Dodecylphenol, branched) classified as Toxic for Reproduction according to the criteria of EU
	This product contains : Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50

Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50

NOAEL (animal, male F0/P)	300 mg/kg (OECD 416)
Specific Target Oxygen	Not classifed (based on available data, the classification criteria not met)
Additonal information	(according to composition)

Benzenesulfonic acid, mono-C10-14-alkyl derivs., calcium salts (70024-69-0)

NOAEL (dermal, rat/rabbit)	2500 mg/kg bodyweight
NOAEC (inhalation, rat, vapour)	881,58 mg/m³

calcium dihydroxide (1305-62-0)

STOT Single exposure	May cause respiratory irritation
STOT Repeated expsoure	Not classifed (based on available data, the classification criteria not met)
Additonal information	(according to composition)

Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)

NOAEL (dermal, rat/rabbit, 90 days)	> 1000 (OECD Giudeline 410)
NOAEL (subacute, oral, animal/male, 28 days)	> 500 mg/kg bodyweight (OECD Guideline 407)

Mineral base oil, severely refined

NOAEL (subacute, oral, animal/male, 28 days)	≥ 500 mg/kg bodyweight (OECD Guideline 407)

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil— unspecified; [A complex combination of hydrocarbons obtained by removal of normal paraffins from a petroleum fraction by solvent crystallization. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C20 through C50 and produces a finished oil with a viscosity not less than 19cSt at 40 °C).]

LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight Animal: male rat, OECD 408
LOAEL (dermal, rat/rabbit, 90 days)	100 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	< 125 mg/kg bodyweight/day (CAS 64742-04-7, Mobil 1990) (OECD 408)
NOAEL (dermal, rat/rabbit, 90 days)	≈ 1000 mg/kg BW ;Rabbit, OECD Guideline 410
NOAEC (inhalation,rat, vapour, 90 days)	220 – 980 mg/m³ (OECD 412)

Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50

NOAEL (oral, rat, 90 days)	200 mg/kg BW/day
NOAEL (dermal, rat/rabbit, 90 days)	250 mg/kg BW/day

MARINE CYLINDER OIL (SAE 50/70 TBN and above)

Viscosity , cst	Upto 21.5 cst at 100 deg C

Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Potential adverse human health effects and symptoms

May damage fertility or the unborn child,Prolonged and repeated skin contact may cause reddening, irritation and dermatitis,May produce an allergic reaction,Contact with eyes may cause temporary reddening and irritation.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY/Ecology-General

The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. An uncontrolled release to the environment may nevertheless produce a contamination of different environmental compartments (air, soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment. Notify authorities if product enters sewers or public waters.

Ecology - Air	This product has a low vapour pressure. A significant exposure may happen only if the product is used at high temperature, or in case of sprays and mists
Ecology - Water	This product is not soluble in water. It floats on water and forms a film on the surface. The damage to aquatic organisms is of mechanical kind (immobilization and entrapment)

Hazardous to the aquatic environment, short–term (acute)

Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic)

Not classified (Based on available data, the classification criteria are not met)

Residual oils (petroleum,) solvent-refined (64742-01-4)	
LC50 fish 1	**100 mg/l**
EC50 Daphnia 1	10 g/l
Calcium carbonate (471-34-1)	
EC50 72h - Algae [1]	14 mg/l
Benzenesulfonic acid, mono-C10-14-alkyl derivs., calcium salts (70024-69-0)	
LC50 fish 1	≥ 100 mg/l LL50/96h, OECD 203 (WAF)
LC50 fish 2	≥ 10000 mg/l LL50/96h, OECD 203 (WAF)
EC50 Daphnia 1	≥ 1000 mg/l EC50/48h, EPA OTS 797.1300
EC50 72h - Algae [1]	≥ 100 mg/l LL50/96h, OECD 201 (WAF)
ErC50 (algae)	≥ 1000 mg/l EC50/72h, EPA OTS 797.1050
Mineral base oil, severely refined	
LC50 fish 1	> 100 mg/l (LL 50)
EC50 Daphnia 1	> 10000 mg/l WAF, 48 h (OECD 202)
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	
LC50 fish 1	≥ 1000 mg/l LL50/96h, OECD 203 (WAF)
LC50 fish 2	≥ 10000 mg/l LL50/96h, OECD 203 (WAF)
EC50 Daphnia 1	≥ 1000 mg/l EC50/48h, EPA OTS 797.1300 (WAF)
ErC50 (algae)	≥ 1000 mg/l EC50/72h, EPA OTS 797.1050 (WAF)
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
LC50 fish 1	> 100 mg/l (LL 50, Exxon 1995 - OECD 203)
EC50 Daphnia 1	> 10000 mg/l (EL50, Shell 1988 - OECD 202)
NOEC (acute)	≥ 100 mg/l OECD 201
NOEC chronic fish	≥ 1000 mg/l
NOEC chronic crustacea	≥ 1000 mg/l (21d, OECD 211)

NOEC chronic algae	≥ 100 mg/l (Pseudokirchneriella subcapitata, 72h)
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	
LC50 fish 1	1 – 10 g/l (LL50, Cavedano americano) (OECD 203)
LC50 other aquatic organisms 1	40 mg/l
EC50 Daphnia 1	> 1 g/l (EL50, OECD TG 202)
EC50 other aquatic organisms 1	> 100 mg/l (EL50, Crangon crangon)
EC50 96h - Algae [1]	> 500 mg/l (EL50, Pseudokirchneriella subcapitata, OECD TG 201)
1 g/l (NOELR)	
NOEC chronic crustacea	100 mg/l (NOELR, 48h)
NOEC chronic algae	500 mg/l (NOELR, 96h)
PERSISTENCE AND DEGRADABILITY	
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions
Residual oils (petroleum,) solvent-refined (64742-01-4)	
Substance is complex UVCB. The test methods for this endpoint are not applicable to UVCB substances	
Benzenesulfonic acid, mono-C10-14-alkyl derivs., calcium salts (70024-69-0)	
Persistence and degradability	Not readily biodegradable
Biodegradation	8% (28d - OECD 301D)
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
Persistence and degradability	The most significant constituents of the product should be considered as "inherently biodegradable", but not "readily biodegradable", and they may be moderately persistent, particularly in anaerobic conditions
Biodegradation	1.5 - 9.1%(28d - OECD 301D)
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	
Persistence and degradability	Product is biodegradable with difficulty
Biodegradation	13.4%(28d - OECD 301D)
PERSISTENCE AND DEGRADABILITY	
Log Pow	Not applicable for mixtures
Log Kow	Not applicable for mixtures
Bioaccumulative Potential	Not esablished
Residual oils (petroleum,) solvent-refined (64742-01-4)	
Bioaccumulative Potential	The test methods for this endpoint are not applicable to UVCB substances
Benzenesulfonic acid, mono-C10-24-alkyl derivs., calcium salts (70024-69-0)	
BCF fish 1	70,8 (L/Kg w/w)
Log Pow	6,91
Log Kow	8 (OECD Guideline 107 (EU Method A.8))
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	
Log Kow	4.46 - 10.88 (OECD Guideline 107 (EU Method A.8))
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	
BCF fish 1	0.4 - 6280 (L/Kg w/w)

BCF fish 2	3,16 – 71100 l/kg
Log Pow	1,99 – 18,02
Log Kow	Not applicable (UVCB)
Bioaccumulative potential	The test methods for this endpoint are not applicable to UVCB substances.

Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50

Bioconcentration factor (BCF Reach)	2.2 (14d)
Log Pow	9.5

Mobility in Soil

MARINE CYLINDER OIL (SAE 50/70 TBN and above)

Mobility in soil	Not determined
Ecology - Soil	No data available

Residual oils (petroleum,) solvent-refined (64742-01-4)

Mobility in soil	The test methods for this endpoint are not applicable to UVCB substances.

Benzenesulfonic acid, mono-C10-24-alkyl derivs., calcium salts (70024-69-0)

Log Koc	15.65 - 15.75

Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)

Log Koc	1.71-14.7
Ecology - Soil	The test methods for this endpoint are not applicable to UVCB substances.

Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50

Ecology - Soil	Product adsorbs onto the soil

Results of PBT and vPvB assessment

MARINE CYLINDER OIL (SAE 50/70 TBN and above)

This substance/mixture does not meet the PBT criteria of REACH, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII
The components in this formulation do not meet the criteria for classification as PBT or vPvB. The product criteria (point 1.1) should be considered prudentially as "Persistent" in the environment, according to the REACH Annex XIII

Component	
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulations, annex III. This substance does not meet criteria for classification as PBT or vPvB. The product should be considered prudentially as 'Persistent' in the environment, according to the REACH annex XIII critera (point 1.1)
Residual oils (petroleum,) solvent-refined (64742-01-4)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulations, annex III. This substance does not meet criteria for classification as PBT or vPvB. The product should be considered prudentially as 'Persistent' in the environment, according to the REACH annex XIII critera (point 1.1)

Calcium carbonate (471-34-1)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulations, annex III. This substance does not meet criteria for classification as PBT or vPvB. The product should be considered prudentially as 'Persistent' in the environment, according to the REACH annex XIII critera (point 1.1)
Benzenesulfonic acid, mono-C10-24-alkyl derivs., calcium salts (70024-69-0)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulations, annex III. This substance does not meet criteria for classification as PBT or vPvB. The product should be considered prudentially as 'Persistent' in the environment, according to the REACH annex XIII critera (point 1.1)
Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	This substance/mixture does not meet the PBT criteria of REACH, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulations, annex III. This substance does not meet criteria for classification as PBT or vPvB. The product should be considered prudentially as 'Persistent' in the environment, according to the REACH annex XIII critera (point 1.1)
Distillates (petroleum), solvent-dewaxed heavy paraffinic (64742-65-0)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulations, annex III. This substance does not meet criteria for classification as PBT or vPvB. The product should be considered prudentially as 'Persistent' in the environment, according to the REACH annex XIII critera (point 1.1)
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (70024-69-0)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulations, annex III. This substance does not meet criteria for classification as PBT or vPvB. The product should be considered prudentially as 'Persistent' in the environment, according to the REACH annex XIII critera (point 1.1)
calcium dihydroxide (1305-62-0)	This substance/mixture does not meet the PBT criteria of REACH, annex XIII. This substance/mixture does not meet the vPvB criteria of REACH regulations, annex III.
Endocrine disrupting properties	
Adverse health effects caused by endocrine disrupting properties	The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %
Endocrine disrupting properties: None	
Additional information	

This product has no specific properties for inhibition of bacterial activity. In any case, wastewater containing this product should be treated in plants that are suited for the specific purpose.

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.

Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. Dispose of in a safe manner in accordance with local/national regulations.

European Waste Catalogue code(s) (Decision 2001/118/CE): 13 02 05* (mineral based non-chlorinated engine, gear and lubricating oils). This EWC code is only a general indication, and takes into account the original composition of the product and its intended use. The user has the responsibility of choosing the right EWC code, considering the actual use of the product, alterations and contaminations.

Empty containers may contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe.

EURAL Code (EWC) 13 02 05 - Mineral based non chlorinated engine, gear and lubricating oils

Ecology - Waste materials - The product as it is does not contain halogenated substances.

SECTION 14 - TRANSPORT INFORMATION

In accordance with ADR/IMDG/IATA/AND/RID

ADR	IMDG	IATA	AND	RID
UN NUMBER OR ID NUMBER				
Not regulated	**Not regulated**	**Not regulated**	**Not regulated**	**Not regulated**
UN proper shipping name				
Not regulated	**Not regulated**	**Not regulated**	**Not regulated**	**Not regulated**
Transport hazard class(es)				
Not regulated	**Not regulated**	**Not regulated**	**Not regulated**	**Not regulated**
Packing group				
Not regulated	**Not regulated**	**Not regulated**	**Not regulated**	**Not regulated**
Environmental hazards				
Not regulated	**Not regulated**	**Not regulated**	**Not regulated**	**Not regulated**

Overland transport	Not regulated
Transport by Sea	Not regulated
Air transport	Not regulated
Inland waterway transport	Not regulated
Rail transport	Not regulated

Maritime transport in bulk according to IMO instruments

IBC Code	Not applicable

SECTION 15 - REGULATORY INFORMATION (Mixture)

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

The following restrictions are applicable according to annex XVII of the REACH regulation (EC) No, 1907/2006

Reference code	Applicable on	Entry title or description
3(b)	Calcium dihydroxide ; Marine cylinder oils ; Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50 ; Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

3©	Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
30	Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50	Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively

No REACH Annex XVII restrictions

No ingredients are included in the REACH Candidate list (> 0,1 % m/m)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Other information restriction

and prohibition regulations

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). (et sequens). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (et sequens). Directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, 90/679/CEE, 93/88/CEE, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE, 99/92/CE, 2001/45/CE, 2003/10/CE, 2003/18/CE (Health and safety on the workplace). Directive 2012/18/CE (Control of major-accident hazards involving dangerous substances). Directive 2004/42/CE (Limitation of emissions of Volatile Organic Compounds). Directive 98/24/EC (protection of the health and safety of workers from the risks related to chemical agents at work). Directive 92/85/CE (measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding). Substances Depleting the Ozone layer (1005/2009) - Annex I Substances (ODP). Regulation EU (649/2012) - Export and Import of hazardous chemicals (PIC). Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants.

National (EU) regulations

National adoption of EU Directives concerning health and safety on the workplace. National adoption of EU Directives concerning control of major-accident hazards involving dangerous substances (2012/18/CE). Relevant national laws on prevention of water pollution. Relevant national laws on protection of the health of pregnant workers (National adoption of Dir. 92/85/EEC). National adoption of Directive 2008/98/CE concerning disposal of used oils.

Chemical safety assessment

For this mixture, a chemical safety assessment has not been carried out

For the following substances of this mixuture a chemical safety assessment has been carried out

Residual oils (petroleum,) solvent-refined

Phenol, paraalkylation products with C10-15 branched olefins (C12 rich) derived from propene oligermization, carbonate, calcium salts, overbased, sulfurized, including distillates (petroleum), hydrotreated, solvent-refined, solvent dewaxed, or catalytic dewaxed, light or heavy paraffinic C10-C50

SECTION 16 - OTHER INFORMATION

Section	Changed item	Change	Notes
	Date of issue	**Added**	
	Adverse health effects caused by endocrine disrupting properties	**Added**	
	Adverse effects on the environment caused by endocrine disrupting properties	**Added**	
	Revision date	**Added**	
1.1	Trade name	**Modified**	
1.1	Name	**Modified**	
1.1	UFI	**Modified**	
2.1	Adverse physico-chemical, human health and environmental effects	**Modified**	
2.1	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]	**Modified**	
2.2	Hazard statements (CLP)	**Modified**	
2.2	Precautionary statements (CL_	**Modified**	
3	Composition/information on ingredients	**Modified**	
12.4	Mobility in soil	**Added**	

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT

TLV - Treshold Limit Value	TWA - Time weighted average
STEL - Short term exposure limit	PEL - Permission expsoure limit
GHS - Globally Harmonized System	CAS - Chemical abstract service number
ACGIH -Americal conference on governmental industrial Hygenine	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	SDS - Safety Data Sheet
HMIS - Hazardous Materials Information System	NFPA - National Fire Protection Association (USA)
DOT - Department of Transport	NTP - National Toxicology Program (USA)
IARC - International agency for research on cancer	OSHA - Occupational Safety and Health Administration
NCEL - New chemical exposure limit	EPA - Environmental Protection Agency
SCBA - Self contained breathing apparatus	NA - Not applicable
ND Not available	CSR - Chemical Safety Report
DNEL - Derived No effect Level	DMEL - Derived Minimum Effect Level
EC - 50 - Effective Concentration , 50%	EL50 - Effective Loading, 50%
IC 50 - Inhibition concentration, 50%	LC 50 - Lethal concentration, 50%
LD 50 -Lethal dose, 50%	LL50 - Lethal loading, 50%
LOAEL - Low observed adverse effects level	NOEL - No observed effects level
NOAEL No observed adverse effects level	OECD Organization for economic co-op and devmt
PNEC Predicted no effect concentration	PBT - Predicted, bioaccumulative, toxic
STOT - Single Target Organ Toxicity	STOT - RE (above) with repeated exposure

STOT - SE (Above) with single exposure	vPvB - Very persistent, very bioaccumulative
UVCB - susbtance of unkonw or variable composition, complex reaction products of bio materials	
WAF - Water accommodated fraction	

Full text of R-, H- and EUH-phrases

Acute Tox 4 (Oral)	Acute Toxicity (oral), category 4
Aquatic acute 1	Hazardous to the aquatic environment - acute Hazard, category 1
Aquatic chronic 1	Hazardous to the aquatic environment - CHronic Hazard, category 1
Aquatic chronic 2	Hazardous to the aquatic environment - CHronic Hazard, category 2
Aquatic chronic 3	Hazardous to the aquatic environment - CHronic Hazard, category 3
Aquatic chronic 4	Hazardous to the aquatic environment - CHronic Hazard, category 4
Eye Dam 1	Serious eye damage/eye irritation, category 1
Eye Irrt. 2	Serious eye damage/eye irritation, category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit.2	Skincorrosion/irritation, category 2
Skin Sens. 1B	Sensitisation - Skin, category 1B
H 302	Harmful if swallowed
H 315	Causes Skin Irritation
H 317	May cause an allergic skin reaction
H 318	Causes serious eye damage
H 319	Causes serious eye irritation
H 361f	Supsected of damaging fertility
H 400	Very toxic to acquatic life
H 410	Very toxic to acquatic life with long lasting effects
H 411	Toxic to acqualic life with long lasting effects

Full text of R-, H- and EUH-phrases (continued)

H 412	Harmful to aquatic life with long lasting effects
H 413	May cause long lasting effects to aquatic life
R 22	Harmful if swallowed
R 36/38	Irritating to eyes/skin
R 38	Irritating to skin
R 41	Risk of serious damage to eyes
R 43	May cause sensitization by skin contact
R 50/53	Very toxic to aquatic organisms, may cause long term adverse effects to them
R 51/53	Toxic to aquatic organisms, ,may cause long term adverse effects
R 53	May cause long term adverse effects in the aquatic environment
R 62	Possible risk of impaired fertility
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

Data sources	This Safety Data Sheet is based on the real characteristics of the components and their combination, taking into account the information provided by the suppliers.
Training advice	Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet

Other information	Do not use the product for any purposes that have not been advised by the manufacturer. In exceptional cases (i.e prolunged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H2S. This situation is especially relevant in all those circumstances which require to enter a confined space, with direct exposure to the vapours. If this possibility is suspected, a specific assessment of inhalation risks from the presence of H2S in confined spaces must be made, to help determine prevention measures and controls (i.e. PPE) appropriate to local circumstances, and adequate emergency procedures. This situation is especially relevant for those operations which involve direct exposure to the vapours in the interior of tanks or other confined spaces. If there is any suspicion of inhalation of H2S (hydrogen sulphide), Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Send patient to hospital. Immediately begin artificial respiration if breathing has ceased. Administer oxygen if necessary. Therefore, it is very important to follow the above mentioned precautionary measures also with used oils.

Prepared as per to the 29 CFR 1910.1200 (2012) and EU by United Grease and Lubricants Co LLC, PO Box 2685, Ajman,United Arab Emirates. Meets EU No. 2015/830 regulations also

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made avaialble subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose