



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and
Regulation (EC) No. 1272/2008

Issuing Date 21-Jul-2022

Revision Date 17-May-2024

Revision Number 2

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

1.1. Product identifier

Product Name Chain Lube
Product Code(s) ACLSC, ACL4SC
Synonyms None
Pure substance/mixture Mixture

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

Recommended use Lubricant
Uses advised against No specific uses advised against are identified

1.3. Details of the supplier of the safety data sheet

Supplier
AMSOIL INC.
One AMSOIL Center
Superior, WI 54880, USA
T: +1 715-392-7101

For further information, please contact

E-mail address compliance@amsoil.com

1.4. Emergency telephone number

Emergency telephone CHEMTREC International: +1 703-741-5970

Emergency telephone - §45 - (EC)1272/2008

Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aerosols	Category 1 - (H222, H229)
Skin irritation	Category 2 - (H315)
Skin sensitisation	Category 1 - (H317)
Specific target organ toxicity (single exposure)	Category 3 - (H336)
Category 3 Narcotic effects	
Aspiration hazard	Category 1 - (H304)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

Contains Base oil; Heptane; Naphthalenesulfonic acid, dinonyl-, calcium salt (2:1) ; Base oil; Cyclohexane, methyl-



Signal word
Danger

Hazard statements

H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P273 - Avoid release to the environment.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P331 - Do NOT induce vomiting.
P391 - Collect spillage.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Additional information

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

2.3. Other hazards

Other hazards Toxic to aquatic life.

PBT & vPvB None known

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Base oil	25-<50	No data	265-151-9	Asp. Tox. 1	-	-	-

64742-49-0		available	(649-328-00-1)	(H304) Muta. 1B [*P] (H340) Carc. 1B [*P] (H350)			
Heptane 142-82-5	10-<20	No data available	205-563-8 (601-008-00-2)	Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam. Liq. 2 (H225)	-	-	-
Butane 106-97-8	10-<20	No data available	203-448-7 (601-004-00-0)	Flam. Gas 1 (H220) Press. Gas	-	-	-
Propane 74-98-6	5-<10	No data available	200-827-9 (601-003-00-5)	Flam. Gas 1 (H220) Press. Gas	-	-	-
Naphthalenesulfonic acid, dinonyl-, calcium salt (2:1) 57855-77-3	1-<5	No data available	260-991-2	Skin Irrit. 2 (H315) Skin Sens.1 (H317) Eye Irrit.2 (H319)	-	-	-
Cyclohexane, methyl- 108-87-2	1-<5	No data available	203-624-3 (601-018-00-7)	Skin Irrit. 2 (H315) STOT SE 3 (H336) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) Flam. Liq. 2 (H225)	-	-	-
Calcium carbonate 471-34-1	1-<5	No data available	207-439-9	No data available	-	-	-
Base oil 64742-47-8	1-<5	No data available	265-149-8 (649-422-00-2)	Asp. Tox. 1 (H304)	-	-	-

Additional information

Note P applies: The classification as a carcinogen and mutagen need not apply if it can be shown that the substance contains less than 0.1% w/w benzene (EINECS No. 200-753-7). This is the case for this material

Full text of H- and EUH-phrases: see section 16Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Base oil 64742-49-0	5000	3160	No data available	No data available	No data available
Heptane 142-82-5	No data available	3000	73.5	No data available	No data available
Butane 106-97-8	No data available	No data available	No data available	No data available	276808.3276
Propane 74-98-6	No data available	No data available	No data available	No data available	200000
Naphthalenesulfonic acid, dinonyl-, calcium salt (2:1) 57855-77-3	5000	20000	No data available	No data available	No data available
Cyclohexane, methyl- 108-87-2	3200	86700	No data available	No data available	No data available
Calcium carbonate 471-34-1	6450	2000	3	No data available	No data available
Base oil 64742-47-8	5000	2000	5.2	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Inhalation	Remove to fresh air. Aspiration into lungs can produce severe lung damage. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. Wash off immediately with soap and plenty of water for at least 15 minutes.
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Get immediate medical attention.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

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

Symptoms	Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness.
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Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Effects of Exposure None.

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

Note to doctors May cause sensitisation in susceptible persons. Treat symptomatically. Symptoms may be delayed. Because of the danger of aspiration, emesis or gastric lavage should not be used unless the risk is justified by the presence of additional toxic substances.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO2 or water spray. Use extinguishing agent suitable for type of surrounding fire.

Unsuitable extinguishing media DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. Product is or contains a sensitiser. May cause sensitisation by skin contact.

Hazardous combustion products Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

5.3. Advice for firefighters

Specific/special fire-fighting measures Fires need to be assessed to determine appropriate protocols and safety measures for firefighting, including establishing safe zones, extinguishing media to be used, firefighter protection, and actions to control or extinguish the fire.

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharges. Avoid breathing dust/fume/gas/mist/vapours/spray.

Other information Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment	Keep out of drains, sewers, ditches and waterways. Stop leak if you can do it without risk. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Flood with water to complete polymerization and scrape off floor.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
<u>6.4. Reference to other sections</u>	
Reference to other sections	For additional information see: Section 8: Exposure controls/personal protection; Section 12: Ecological information; Section 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use spark-proof tools and explosion-proof equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Keep in an area equipped with sprinklers. Do not puncture or incinerate cans. Contents under pressure. In case of rupture, Avoid breathing vapours or mists. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Avoid contact with used product. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse.
General hygiene considerations	Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep at a temperature not exceeding 50 °C. Keep in properly labelled containers. Do not store near combustible materials. Do not reuse empty containers. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other chemicals. Store locked up. Keep out of the reach of children. Store away from other materials.
Storage class (TRGS 510)	LGK 10.

7.3. Specific end use(s)

Specific use(s).	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits	Under conditions which may generate mists, the following exposure limits are recommended: Long-term exposure limit (8-hour TWA): 5 mg/m ³ . Short-term exposure limit (15-minute): 10 mg/m ³ .
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Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Heptane 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 500 ppm TWA: 2000 mg/m ³ STEL 2000 ppm STEL 8000 mg/m ³	TWA: 400 ppm TWA: 1664 mg/m ³ STEL: 500 ppm STEL: 2085 mg/m ³	TWA: 1600 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³ Sk*
Butane 106-97-8	-	TWA: 800 ppm TWA: 1900 mg/m ³ STEL 1600 ppm STEL 3800 mg/m ³	TWA: 1000 ppm STEL: 980 ppm STEL: 2370 mg/m ³	TWA: 1900 mg/m ³	TWA: 600 ppm TWA: 1450 mg/m ³ TWA: 10 ppm TWA: 22 mg/m ³ STEL: 750 ppm STEL: 1810 mg/m ³
Propane 74-98-6	-	TWA: 1000 ppm TWA: 1800 mg/m ³ STEL 2000 ppm STEL 3600 mg/m ³	TWA: 1000 ppm	TWA: 1800.0 mg/m ³	-
Cyclohexane, methyl- 108-87-2	-	TWA: 400 ppm TWA: 1600 mg/m ³ STEL 1600 ppm STEL 6400 mg/m ³	TWA: 400 ppm TWA: 1633 mg/m ³	TWA: 500.0 mg/m ³	-
Calcium carbonate 471-34-1	-	-	-	-	TWA: 10 mg/m ³ TWA: 4 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Heptane 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 1000 mg/m ³ Ceiling: 2000 mg/m ³	TWA: 200 ppm TWA: 820 mg/m ³ STEL: 400 ppm STEL: 1640 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 300 ppm TWA: 1200 mg/m ³ STEL: 500 ppm STEL: 2100 mg/m ³
Butane 106-97-8	-	-	TWA: 500 ppm TWA: 1200 mg/m ³ STEL: 1000 ppm STEL: 2400 mg/m ³	TWA: 800 ppm TWA: 1500 mg/m ³	TWA: 800 ppm TWA: 1900 mg/m ³ STEL: 1000 ppm STEL: 2400 mg/m ³
Propane 74-98-6	-	-	TWA: 1000 ppm TWA: 1800 mg/m ³ STEL: 2000 ppm STEL: 3600 mg/m ³	TWA: 1000 ppm TWA: 1800 mg/m ³	TWA: 800 ppm TWA: 1500 mg/m ³ STEL: 1100 ppm STEL: 2000 mg/m ³
Cyclohexane, methyl- 108-87-2	-	TWA: 1500 mg/m ³ Ceiling: 2000 mg/m ³	TWA: 200 ppm TWA: 805 mg/m ³ STEL: 400 ppm STEL: 1610 mg/m ³	TWA: 400 ppm TWA: 1600 mg/m ³	TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 500 ppm STEL: 2000 mg/m ³
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Heptane 142-82-5	TWA: 400 ppm TWA: 1668 mg/m ³ STEL: 500 ppm STEL: 2085 mg/m ³	TWA: 500 ppm TWA: 2100 mg/m ³	TWA: 500 ppm TWA: 2100 mg/m ³ Peak: 500 ppm Peak: 2100 mg/m ³	TWA: 500 ppm TWA: 2000 mg/m ³ STEL: 500 ppm STEL: 2000 mg/m ³	TWA: 2000 mg/m ³
Butane 106-97-8	TWA: 800 ppm TWA: 1900 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³ Peak: 4000 ppm Peak: 9600 mg/m ³	TWA: 1000 ppm TWA: 2350 mg/m ³	TWA: 2350 mg/m ³ STEL: 9400 mg/m ³
Propane 74-98-6	-	TWA: 1000 ppm TWA: 1800 mg/m ³	TWA: 1000 ppm TWA: 1800 mg/m ³ Peak: 4000 ppm Peak: 7200 mg/m ³	TWA: 1000 ppm TWA: 1800 mg/m ³	-
Cyclohexane, methyl- 108-87-2	TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 1500 mg/m ³	TWA: 200 ppm TWA: 810 mg/m ³	TWA: 200 ppm TWA: 810 mg/m ³ Peak: 400 ppm Peak: 1620 mg/m ³	TWA: 500 ppm TWA: 2000 mg/m ³ STEL: 500 ppm STEL: 2000 mg/m ³	-
Calcium carbonate 471-34-1	TWA: 10 mg/m ³	-	-	-	-
Base oil	-	TWA:	TWA: 5 mg/m ³	-	-

64742-47-8			TWA: 50 ppm TWA: 350 mg/m ³ Peak: 20 mg/m ³ Peak: 100 ppm Peak: 700 mg/m ³		
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Heptane 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 1500 ppm STEL: 6255 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 400 ppm TWA: 1639 mg/m ³ STEL: 500 ppm STEL: 2049 mg/m ³	TWA: 85 ppm TWA: 350 mg/m ³ STEL: 500 ppm STEL: 2085 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 750 ppm STEL: 3128 mg/m ³
Butane 106-97-8	TWA: 1000 ppm STEL: 3000 ppm	-	STEL: 1000 ppm STEL: 2377 mg/m ³	TWA: 300 mg/m ³ STEL: 300 mg/m ³	-
Propane 74-98-6	STEL: 3000 ppm Simple asphyxiant	-	: Simple asphyxiant	TWA: 1000 ppm TWA: 1800 mg/m ³ STEL: 300 mg/m ³	-
Cyclohexane, methyl- 108-87-2	TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 1200 ppm STEL: 4800 mg/m ³	-	TWA: 400 ppm TWA: 1606 mg/m ³	-	TWA: 50 mg/m ³
Calcium carbonate 471-34-1	-	-	-	TWA: 6 mg/m ³	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Base oil 64742-49-0	-	-	-	-	TWA: 500 mg/m ³ STEL: 1500 mg/m ³
Heptane 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 288 ppm TWA: 1200 mg/m ³ STEL: 384 ppm STEL: 1600 mg/m ³	TWA: 200 ppm TWA: 800 mg/m ³ STEL: 250 ppm STEL: 1000 mg/m ³	TWA: 1200 mg/m ³ STEL: 2000 mg/m ³
Butane 106-97-8	-	-	-	TWA: 250 ppm TWA: 600 mg/m ³ STEL: 312.5 ppm STEL: 750 mg/m ³	TWA: 1900 mg/m ³ STEL: 3000 mg/m ³
Propane 74-98-6	-	-	-	TWA: 500 ppm TWA: 900 mg/m ³ STEL: 625 ppm STEL: 1125 mg/m ³	TWA: 1800 mg/m ³
Cyclohexane, methyl- 108-87-2	-	-	-	TWA: 200 ppm TWA: 800 mg/m ³ STEL: 250 ppm STEL: 1000 mg/m ³	TWA: 1600 mg/m ³ STEL: 3000 mg/m ³
Calcium carbonate 471-34-1	-	-	-	-	TWA: 10 mg/m ³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Heptane 142-82-5	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 500 ppm	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 1000 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 500 ppm STEL: 2085 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³
Butane 106-97-8	TWA: 1000 ppm STEL: 1000 ppm	TWA: 700 mg/m ³ STEL: 1000 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³ STEL: 5000 ppm STEL: 12000 mg/m ³	TWA: 1000 ppm TWA: 2400 mg/m ³ STEL: 4000 ppm STEL: 9600 mg/m ³	TWA: 1000 ppm
Propane 74-98-6	TWA: 1000 ppm	TWA: 778 ppm TWA: 1400 mg/m ³ STEL: 1000 ppm STEL: 1800 mg/m ³	-	TWA: 1000 ppm TWA: 1800 mg/m ³ STEL: 4000 ppm STEL: 7200 mg/m ³	TWA: 1000 ppm
Cyclohexane, methyl- 108-87-2	TWA: 400 ppm	TWA: 300 ppm TWA: 1200 mg/m ³ STEL: 375 ppm STEL: 1500 mg/m ³	TWA: 200 ppm TWA: 810 mg/m ³ Ceiling: 1620 mg/m ³	TWA: 810 mg/m ³ TWA: 200 ppm STEL: 400 ppm STEL: 1620 mg/m ³	TWA: 400 ppm TWA: 1630 mg/m ³

Chemical name	Sweden	Switzerland	United Kingdom
Heptane 142-82-5	NGV: 200 ppm NGV: 800 mg/m ³ Vägledande KGV: 300 ppm Vägledande KGV: 1200 mg/m ³	TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 400 ppm STEL: 1600 mg/m ³	TWA: 500 ppm TWA: 2085 mg/m ³ STEL: 1500 ppm STEL: 6255 mg/m ³
Butane 106-97-8	NGV: 350 mg/m ³	TWA: 800 ppm TWA: 1900 mg/m ³ STEL: 3200 ppm STEL: 7600 mg/m ³	TWA: 600 ppm TWA: 1450 mg/m ³ STEL: 750 ppm STEL: 1810 mg/m ³
Propane 74-98-6	NGV: 350 mg/m ³	TWA: 1000 ppm TWA: 1800 mg/m ³ STEL: 4000 ppm STEL: 7200 mg/m ³	-
Cyclohexane, methyl- 108-87-2	-	TWA: 400 ppm TWA: 1600 mg/m ³ STEL: 800 ppm STEL: 3200 mg/m ³	-
Calcium carbonate 471-34-1	-	TWA: 3 mg/m ³ TWA: 10 mg/m ³	-
Base oil 64742-47-8	-	TWA: 50 ppm TWA: 350 mg/m ³ TWA: 5 mg/m ³ STEL: 100 ppm STEL: 700 mg/m ³	-

Biological occupational exposure limits

Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
Heptane 142-82-5	-	-	-	250 µg/L (urine - Heptan-2,5-dione end of shift) 250 µg/L - BAT (end of exposure or end of shift) urine	250 µg/L (urine - Heptan-2,5-dione end of shift)
Chemical name	Slovenia	Spain	Switzerland	United Kingdom	
Heptane 142-82-5	-	-	200 µg/L (urine - Heptan-2 5-dione end of shift)	-	

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Base oil 64742-49-0	-	-	1286.4 mg/m ³ [4] [7] 837.5 mg/m ³ [5] [6] 1066.67 mg/m ³ [5] [7]
Heptane 142-82-5	-	300 mg/kg bw/day [4] [6]	2085 mg/m ³ [4] [6]
Calcium carbonate 471-34-1	-	-	6.36 mg/m ³ [5] [6]
Cyclohexane, methyl- 108-87-2	-	1.7 mg/kg bw/day [4] [6]	64.3 mg/m ³ [4] [6] 1354.6 mg/m ³ [4] [7]
Toluene 108-88-3	-	384 mg/kg bw/day [4] [6]	192 mg/m ³ [4] [6] 384 mg/m ³ [4] [7] 192 mg/m ³ [5] [6] 384 mg/m ³ [5] [7]
Hexane 110-54-3	-	11 mg/kg bw/day [4] [6]	75 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
Cyclohexane 110-82-7	-	2016 mg/kg bw/day [4] [6]	700 mg/m ³ [4] [6] 1400 mg/m ³ [4] [7] 700 mg/m ³ [5] [6] 1400 mg/m ³ [5] [7]
Ethylbenzene 100-41-4	-	180 mg/kg bw/day [4] [6]	77 mg/m ³ [4] [6] 293 mg/m ³ [5] [7]
Base oil 64742-55-8	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m ³ [4] [6] 5.58 mg/m ³ [5] [6]

Notes

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.
[7]	Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Base oil 64742-49-0	-	-	1152 mg/m ³ [4] [7] 178.57 mg/m ³ [5] [6] 640 mg/m ³ [5] [7]
Heptane 142-82-5	149 mg/kg bw/day [4] [6]	-	447 mg/m ³ [4] [6]
Base oil 64742-47-8	18.75 mg/kg bw/day [4] [6]	-	-
Calcium carbonate 471-34-1	6.1 mg/kg bw/day [4] [6] 6.1 mg/kg bw/day [4] [7]	-	1.06 mg/m ³ [5] [6]
Cyclohexane, methyl- 108-87-2	0.4 mg/kg bw/day [4] [6]	-	16 mg/m ³ [4] [6] 1016 mg/m ³ [4] [7]
Toluene 108-88-3	8.13 mg/kg bw/day [4] [6]	-	56.5 mg/m ³ [4] [6] 226 mg/m ³ [4] [7] 56.5 mg/m ³ [5] [6] 226 mg/m ³ [5] [7]
Hexane 110-54-3	4 mg/kg bw/day [4] [6]	-	16 mg/m ³ [4] [6]
Cyclohexane 110-82-7	59.4 mg/kg bw/day [4] [6]	-	206 mg/m ³ [4] [6] 412 mg/m ³ [4] [7] 206 mg/m ³ [5] [6] 412 mg/m ³ [5] [7]
Ethylbenzene 100-41-4	1.6 mg/kg bw/day [4] [6]	-	15 mg/m ³ [4] [6]
Base oil 64742-55-8	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]

Notes

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.
[7]	Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Cyclohexane, methyl-	1.34 µg/L	13.4 µg/L	0.134 µg/L	-	-

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
108-87-2					
Toluene 108-88-3	0.68 mg/L	0.68 mg/L	0.68 mg/L	-	-
Cyclohexane 110-82-7	0.207 mg/L	0.207 mg/L	0.207 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Calcium carbonate 471-34-1	-	-	100 mg/L	-	-
Cyclohexane, methyl- 108-87-2	36.2 µg/kg sediment dw	3.62 µg/kg sediment dw	273 µg/L	9.7 µg/kg soil dw	-
Toluene 108-88-3	16.39 mg/kg sediment dw	16.39 mg/kg sediment dw	13.61 mg/L	2.89 mg/kg soil dw	-
Cyclohexane 110-82-7	16.68 mg/kg sediment dw	16.68 mg/kg sediment dw	3.24 mg/L	3.38 mg/kg soil dw	-
Base oil 64742-55-8	-	-	-	-	9.33 mg/kg food

8.2. Exposure controls

Engineering controls

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

If there is a risk of contact: Tight sealing safety goggles. Eye protection must conform to standard EN 166. Safety glasses with side shields are recommended for medical or industrial exposures.

Hand protection

If there is a risk of contact: Wear suitable gloves. Impervious gloves. Gloves must conform to standard EN 374. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves.

Skin and body protection

If there is a risk of contact: Wear suitable protective clothing (EN ISO 6529). Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations

Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state

Aerosol, Liquid

Colour	Clear
Odour	Solvent
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flammability	Level 3 Aerosol	
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point	- 104	Estimated
Autoignition temperature		No data available
Decomposition temperature		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Vapour pressure		No data available
Relative density		No data available
Bulk density		No data available
Liquid Density		No data available
Relative vapour density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

9.2. Other information

9.2.1. Information with regards to physical hazard classes

Not applicable

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	None under normal use conditions.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge Yes.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Reacts with strong oxidizing agents.
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10.4. Conditions to avoid

Conditions to avoid Heat, flames and sparks. High temperature. Protect from direct sunlight. Containers may rupture or explode if exposed to heat.

10.5. Incompatible materials

Incompatible materials Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition can lead to release of irritating gases and vapours. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Product Information

Inhalation Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Specific test data for the substance or mixture is not available. Aspiration into lungs can produce severe lung damage. May cause pulmonary edema. Pulmonary edema can be fatal. May cause irritation of respiratory tract. May cause drowsiness or dizziness.

Eye contact Specific test data for the substance or mixture is not available. May cause irritation.

Skin contact May cause sensitisation by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Repeated exposure may cause skin dryness or cracking. Causes skin irritation.

Ingestion Specific test data for the substance or mixture is not available. Potential for aspiration if swallowed. May cause lung damage if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Itching. Rashes. Hives. Difficulty in breathing. Coughing and/ or wheezing. Dizziness. Redness. May cause redness and tearing of the eyes. Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral) 4,328.80 mg/kg
ATEmix (dermal) 3,114.40 mg/kg
ATEmix (inhalation-gas) 164,039.00 ppm
ATEmix (inhalation-dust/mist) 37.00 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Base oil 64742-49-0	> 5000 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 73680 ppm (Rat) 4 h

Heptane 142-82-5	-	= 3000 mg/kg (Rabbit)	> 73.5 mg/L (Rat) 4 h
Butane 106-97-8	-	-	= 658 g/m ³ (Rat) 4 h
Propane 74-98-6	-	-	> 800000 ppm (Rat) 15 min
Naphthalenesulfonic acid, dinonyl-, calcium salt (2:1) 57855-77-3	> 5000 mg/kg (Rat)	> 20000 mg/kg (Rabbit)	> 18 mg/L (Rat) 1 h
Cyclohexane, methyl- 108-87-2	> 3200 mg/kg (Rat)	> 86700 mg/kg (Rabbit)	-
Calcium carbonate 471-34-1	= 6450 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 3 mg/L (Rat) 4 h
Base oil 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	European Union
Base oil	Muta. 1B
Butane	Muta. 1B

Carcinogenicity The supplier declares that it can be shown that the substance(s) contain less than 3% DMSO extract as measured by IP 346.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Base oil	Carc. 1B
Butane	Carc. 1A

Reproductive toxicity No information available.

STOT - single exposure May cause drowsiness or dizziness.

STOT - repeated exposure No information available.

Aspiration hazard May be fatal if swallowed and enters airways.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties Based on available data, the classification criteria are not met

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Base oil 64742-49-0	-	LC50: =8.41mg/L (96h, Oncorhynchus mykiss)	-	-
Heptane 142-82-5	-	LC50: =375.0mg/L (96h, Cichlid fish)	-	-
Cyclohexane, methyl- 108-87-2	-	LC50: =2.07mg/L (96h, Oryzias latipes)	-	-
Base oil 64742-47-8	-	LC50: =45mg/L (96h, Pimephales promelas) LC50: =2.2mg/L (96h, Lepomis macrochirus) LC50: =2.4mg/L (96h, Oncorhynchus mykiss)	-	-

12.2. Persistence and degradability

Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Heptane	4.66
Butane	2.31
Propane	1.09

12.4. Mobility in soil

Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Base oil 64742-49-0	The substance is not PBT / vPvB
Heptane 142-82-5	The substance is not PBT / vPvB
Butane 106-97-8	The substance is not PBT / vPvB
Propane 74-98-6	The substance is not PBT / vPvB
Cyclohexane, methyl- 108-87-2	The substance is not PBT / vPvB
Calcium carbonate 471-34-1	The substance is not PBT / vPvB

Base oil 64742-47-8	The substance is not PBT / vPvB
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12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties Based on available data, the classification criteria are not met.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

Waste codes / waste designations according to EWC / AVV According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information**IMDG**

14.1 UN number or ID number UN1950
14.2 UN proper shipping name AEROSOLS
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not applicable
Description UN1950, AEROSOLS (Hydrogenated base oil), 2.1, Marine pollutant
14.5 Environmental hazards Yes
14.6 Special Precautions for Users
Special Provisions 63,190, 277, 327, 344, 381, 959
EmS-No. F-D, S-U
14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number UN1950
14.2 UN proper shipping name AEROSOLS
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not applicable
Description UN1950, AEROSOLS, 2.1, Environmentally Hazardous
14.5 Environmental hazards Yes
14.6 Special Precautions for Users
Special Provisions None
Classification code 5F

ADR

14.1 UN number or ID number UN1950
14.2 UN proper shipping name AEROSOLS
14.3 Transport hazard class(es) 2.1
14.4 Packing group Not applicable

Description	UN1950, AEROSOLS, 2.1, Environmentally Hazardous
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	190, 327, 344, 625
Classification code	5F
Tunnel restriction code	(D)

ADN

14.1 UN/ID no	UN1950
14.2 EPNN	AEROSOLS
14.3 Transport hazard class(es)	2.1
14.4 Packing group	Not applicable
Description	UN1950, AEROSOLS, 2.1, Environmentally Hazardous
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	190, 327, 344, 625
Classification code	5F
Ventilation	VE01, VE04
Equipment Requirements	PP, EX, A

IATA

14.1 UN number or ID number	UN1950
14.2 UN proper shipping name	Aerosols, flammable
14.3 Transport hazard class(es)	2.1
14.4 Packing group	Not applicable
Description	UN1950, Aerosols, flammable, 2.1
14.5 Environmental hazards	Yes
14.6 Special Precautions for Users	
Special Provisions	A145, A167, A802
ERG Code	10L
Note:	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****France****Occupational Illnesses (R-463-3, France)**

Chemical name	French RG number
Base oil 64742-49-0	RG 84
Heptane 142-82-5	RG 84
Cyclohexane, methyl- 108-87-2	RG 84
Base oil 64742-47-8	RG 84

Germany

Water hazard class (WGK) strongly hazardous to water (WGK 3)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Base oil - 64742-49-0	28 29 75	-
Heptane - 142-82-5	75	-
Butane - 106-97-8	28 29 75	-
Cyclohexane, methyl- - 108-87-2	75	-
Calcium carbonate - 471-34-1	75	-

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Named dangerous substances per Seveso Directive (2012/18/EU)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Base oil - 64742-49-0	-	25000

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Calcium carbonate - 471-34-1	Plant protection agent

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment**Chemical Safety Report**

No information available

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H220 - Extremely flammable gas
H225 - Highly flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H340 - May cause genetic defects
H350 - May cause cancer
H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances

vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

STOT: Specific Target Organ Toxicity

ATE: Acute Toxicity Estimate

LC50: 50% Lethal Concentration

LD50: 50% Lethal Dose

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

Ceiling Maximum limit value

SCBA Self-contained breathing apparatus

STEL

Sk*

STEL (Short Term Exposure Limit)

Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	On basis of test data
Carcinogenicity	On basis of test data
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This safety data sheet complies with the requirements of Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No. 1907/2006

Disclaimer

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End of Safety Data Sheet