



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 18-Jul-2022

Revision Date 17-Apr-2024

Revision Number 1

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

1.1. Product identifier

Product Name Power Foam®

Product Code(s) APFSC

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Cleaner

Uses advised against Avoid formation of mists

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)
Serious eye damage	Category 1 - (H318)
Carcinogenicity	Category 1B - (H350)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

Contains Base oil; Base oil; Naphthalene; Morpholine



Signal word
Danger

Hazard statements

H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H350 - May cause cancer.
H411 - Toxic to aquatic life with long lasting effects.
H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.

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

P201 - Obtain special instructions before use.
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.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor.
P321 - Specific treatment (see supplemental first aid instructions on this label).
P391 - Collect spillage.
P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Unknown acute toxicity

38 % of the mixture consists of ingredient(s) of unknown acute toxicity.

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

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	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)

				[CLP]			
Base oil 64742-94-5	25-30	No data available	265-198-5 (649-424-00-3)	Asp. Tox. 1 (H304)	-	-	-
Base oil 64742-52-5	10-<20	No data available	265-155-0 (649-465-00-7)	Carc. 1B (H350)	-	-	-
2-butoxyethanol 111-76-2	10-<20	No data available	203-905-0 (603-014-00-0)	Acute Tox. 4 (H302) Acute Tox. 3 (H331) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	-	-	-
Naphthalene 91-20-3	1-<5	No data available	202-049-5 (601-052-00-2)	Acute Tox. 4 (H302) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	-	-
Morpholine 110-91-8	1-<3	No data available	203-815-1 (613-028-00-9)	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Corr. 1B (H314) Flam. Liq. 3 (H226)	-	-	-

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

Acute 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 (ATE_{mix}) 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 64742-94-5	5000	2000	0.59	No data available	No data available
Base oil 64742-52-5	5000	5000	No data available	No data available	No data available
2-butoxyethanol 111-76-2	1200 + 470	435	No data available	3 + 2.1749 2.3489	No data available
Naphthalene 91-20-3	1110	1120	0.4	No data available	No data available
Morpholine 110-91-8	1050	310	No data available	40.3129	No data available

+ This value is the harmonised acute toxicity estimate (ATE) listed in CLP Annex VI, Part 3. This harmonised ATE value must be used when calculating the acute toxicity estimate (ATE_{mix}) for classifying a mixture containing the listed substance

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. IF exposed or concerned: Get medical advice/attention.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms 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 immediate medical attention.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
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. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing.

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

Symptoms	Burning sensation.
Effects of Exposure	May cause cancer.

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

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray.
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.
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.
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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 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. Keep out of drains, sewers, ditches and waterways. 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.

6.4. Reference to other sections

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. 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. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers. Protect from sunlight. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labelled containers. Do not store near combustible materials. 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.

Storage class (TRGS 510)

LGK 2B.

7.3. Specific end use(s)**Specific use(s).**

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL 40 ppm STEL 200 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ Sk*	TWA: 10 ppm TWA: 53 mg/m ³ STEL: 15 ppm STEL: 80 mg/m ³ Sk*	TWA: 50.0 mg/m ³ STEL: 75.0 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³
Morpholine 110-91-8	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL 10 ppm STEL 36 mg/m ³ Ceiling: 10 ppm Ceiling: 36 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*	TWA: 10 ppm TWA: 36.0 mg/m ³ STEL: 20 ppm STEL: 72.0 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 100 mg/m ³ Sk* Ceiling: 200 mg/m ³	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 246 mg/m ³ STEL: 50 ppm Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk* S+	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 250 mg/m ³ Sk*
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 50 mg/m ³ Ceiling: 100 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 100 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 1 ppm TWA: 5 mg/m ³ STEL: 2 ppm STEL: 10 mg/m ³
Morpholine 110-91-8	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 35 mg/m ³ Sk* Ceiling: 70 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 72 mg/m ³ STEL: 20 ppm Sk*	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
2-butoxyethanol 111-76-2	TWA: 10 ppm TWA: 49 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 10 ppm TWA: 49 mg/m ³ Sk*	TWA: 10 ppm TWA: 49 mg/m ³ Peak: 20 ppm Peak: 98 mg/m ³ Sk*	TWA: 25 ppm TWA: 120 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*

Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 0.4 ppm TWA: 2 mg/m ³ Sk*	Sk*	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 50 mg/m ³ TWA: 10 ppm
Morpholine 110-91-8	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 5 ppm TWA: 18 mg/m ³ Sk*	TWA: 5 ppm TWA: 18 mg/m ³ Peak: 5 ppm Peak: 18 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 36 mg/m ³ TWA: 10 ppm STEL: 72 mg/m ³ STEL: 20 ppm
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 97 mg/m ³	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 100 mg/m ³ Sk*
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 30 ppm STEL: 150 mg/m ³	-	TWA: 10 ppm TWA: 52 mg/m ³ Sk*	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³
Morpholine 110-91-8	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*	TWA: 20 ppm Sk*	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20.4 ppm TWA: 100 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 75 mg/m ³ Sk*	TWA: 98 mg/m ³ STEL: 200 mg/m ³ Sk*
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 16 ppm STEL: 80 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 20 ppm STEL: 75 mg/m ³	TWA: 20 mg/m ³ STEL: 50 mg/m ³ Sk*
Morpholine 110-91-8	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 54 mg/m ³ Sk*	TWA: 36 mg/m ³ STEL: 72 mg/m ³ Sk*
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
2-butoxyethanol 111-76-2	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ Sk* Ceiling: 246 mg/m ³	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*	TWA: 20 ppm TWA: 98 mg/m ³ STEL: 50 ppm STEL: 245 mg/m ³ Sk*
Naphthalene 91-20-3	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 15 ppm Sk*	TWA: 10 ppm TWA: 50 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ Sk* Ceiling: 80 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ STEL: 10 ppm STEL: 50 mg/m ³ Sk*	TWA: 10 ppm TWA: 53 mg/m ³ STEL: 15 ppm STEL: 80 mg/m ³ Sk*
Morpholine 110-91-8	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ Ceiling: 72 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³
Chemical name	Sweden		Switzerland		United Kingdom
2-butoxyethanol 111-76-2	NGV: 10 ppm NGV: 50 mg/m ³ Bindande KGV: 50 ppm Bindande KGV: 246 mg/m ³ Sk*		TWA: 10 ppm TWA: 49 mg/m ³ STEL: 20 ppm STEL: 98 mg/m ³ Sk*		TWA: 25 ppm TWA: 123 mg/m ³ STEL: 50 ppm STEL: 246 mg/m ³ Sk*

Naphthalene 91-20-3	NGV: 10 ppm NGV: 50 mg/m ³ Vägledande KGV: 15 ppm Vägledande KGV: 80 mg/m ³	TWA: 10 ppm TWA: 50 mg/m ³ Sk*	-
Morpholine 110-91-8	NGV: 10 ppm NGV: 35 mg/m ³ Bindande KGV: 20 ppm Bindande KGV: 72 mg/m ³	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*	TWA: 10 ppm TWA: 36 mg/m ³ STEL: 20 ppm STEL: 72 mg/m ³ Sk*

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
2-butoxyethanol 111-76-2	-	-	-	-	200 mg/g Creatinine (urine - Butoxyacetic acid end of shift at end of workweek) 0.17 mmol/mmol Creatinine (urine - Butoxyacetic acid end of shift at end of workweek)
Chemical name	Denmark	Finland	France	Germany DFG	Germany TRGS
2-butoxyethanol 111-76-2	-	-	-	150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) end of shift) 150 mg/g Creatinine - BAT (for long-term exposures: at the end of the shift after several shifts) urine	150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) for long-term exposures: at the end of the shift after several shifts) 150 mg/g Creatinine (urine - Butoxyacetic acid (after hydrolysis) end of shift)
Naphthalene 91-20-3	-	-	-	35 µg/L - BAR (for long-term exposures: at the end of the shift after several shifts) urine 4000 µg/L - (end of exposure or end of shift) - urine 13500 µg/L - (end of exposure or end of shift) - urine 23300 µg/L - (end of exposure or end of shift) - urine 34200 µg/L - (end of exposure or end of shift) - urine 30 µg/L - (end of	-

				exposure or end of shift) - urine 60 µg/L - (end of exposure or end of shift) - urine 175 µg/L - (end of exposure or end of shift) - urine 280 µg/L - (end of exposure or end of shift) - urine 390 µg/L - (end of exposure or end of shift) - urine 220 µg/L - (end of exposure or end of shift) - urine 500 µg/L - (end of exposure or end of shift) - urine 1500 µg/L - (end of exposure or end of shift) - urine 2300 µg/L - (end of exposure or end of shift) - urine 3300 µg/L - (end of exposure or end of shift) - urine	
Chemical name	Hungary	Ireland	Italy MDLPS	Italy AIDII	
2-butoxyethanol 111-76-2	-	200 mg/g Creatinine (urine - end of shift)	-	200 mg/g Creatinine - urine (Butoxyacetic acid (with hydrolysis)) - end of shift	
Naphthalene 91-20-3	-	-	-	- () - end of shift	
Chemical name	Slovenia	Spain	Switzerland	United Kingdom	
2-butoxyethanol 111-76-2	150 mg/g Creatinine - urine (Butoxyacetic acid (after hydrolysis)) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays	200 mg/g Creatinine (urine - Butoxyacetic acid (with hydrolysis) end of shift)	150 mg/g creatinine (urine - 2-Butoxyacetic acid (after hydrolysis) end of shift, and after several shifts (for long-term exposures))	240 mmol/mol creatinine - urine (Butoxyacetic acid) - post shift	

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
2-butoxyethanol 111-76-2	-	125 mg/kg bw/day [4] [6] 89 mg/kg bw/day [4] [7]	98 mg/m³ [4] [6] 1091 mg/m³ [4] [7] 246 mg/m³ [5] [7]
Base oil 64742-52-5	-	0.97 mg/kg bw/day [4] [6]	2.73 mg/m³ [4] [6] 5.58 mg/m³ [5] [6]
Naphthalene 91-20-3	-	3.57 mg/kg bw/day [4] [6]	25 mg/m³ [4] [6] 25 mg/m³ [5] [6]
Morpholine 110-91-8	-	1.04 mg/kg bw/day [4] [6]	91 mg/m³ [4] [6] 36 mg/m³ [5] [6] 72 mg/m³ [5] [7]

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
2-butoxyethanol 111-76-2	6.3 mg/kg bw/day [4] [6] 26.7 mg/kg bw/day [4] [7]	89 mg/kg bw/day [4] [6] 89 mg/kg bw/day [4] [7]	59 mg/m ³ [4] [6] 426 mg/m ³ [4] [7] 147 mg/m ³ [5] [7]
Base oil 64742-52-5	0.74 mg/kg bw/day [4] [6]	-	1.19 mg/m ³ [5] [6]
Morpholine 110-91-8	6.3 mg/kg bw/day [4] [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
Base oil 64742-94-5	0.001 mg/L	-	0.001 mg/L	-	-
2-butoxyethanol 111-76-2	8.8 mg/L	26.4 mg/L	0.88 mg/L	-	-
Naphthalene 91-20-3	2.4 µg/L	20 µg/L	2.4 µg/L	-	-
Morpholine 110-91-8	0.163 mg/L	0.09 mg/L	0.0163 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
2-butoxyethanol 111-76-2	34.6 mg/kg sediment dw	3.46 mg/kg sediment dw	463 mg/L	2.33 mg/kg soil dw	0.02 g/kg food
Base oil 64742-52-5	-	-	-	-	9.33 mg/kg food
Naphthalene 91-20-3	67.2 µg/kg sediment dw	67.2 µg/kg sediment dw	2.9 mg/L	53.3 µg/kg soil dw	-
Morpholine 110-91-8	1.83 mg/kg sediment dw	0.183 mg/kg sediment dw	10 mg/L	0.269 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls	Ensure adequate ventilation, especially in confined areas.
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Personal protective equipment

Eye/face protection	If there is a risk of contact: Tight sealing safety goggles. Safety glasses with side shields are recommended for medical or industrial exposures. Eye protection must conform to standard EN 166.
Hand protection	If there is a risk of contact: Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Impervious gloves. Wear suitable gloves. Gloves must conform to standard EN 374.
Skin and body protection	If there is a risk of contact: Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots. (EN ISO 6529).
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. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water. Local authorities should be advised if significant spillages cannot be contained.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance		
Physical state	Liquid	
Colour	Clear to milky white	
Odour	Mild hydrocarbon	
Odour threshold	No information available	
Property	Values	Remarks • Method
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits	9.5 % (V)	Estimated
Lower flammability or explosive limits	2.2 % (V)	Estimated
Flash point	-104 °C	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	2,895 - 3,585 hPa (20 °C) 6,205 - 7,032 hPa (54 °C)	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
Particle Size DistributionNo data available
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.**10.2. Chemical stability****Stability** Stable under normal conditions.**Explosion data****Sensitivity to mechanical impact** None.**Sensitivity to static discharge** Yes.**10.3. Possibility of hazardous reactions****Possibility of hazardous reactions** None under normal processing.**10.4. Conditions to avoid****Conditions to avoid** Heat, flames and sparks.**10.5. Incompatible materials****Incompatible materials** Strong acids. Strong bases. Strong oxidising agents.**10.6. Hazardous decomposition products****Hazardous decomposition products** Thermal decomposition can lead to release of irritating and toxic 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. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion

Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics**Symptoms**

Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

Acute toxicity**Numerical measures of toxicity**

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

ATEmix (oral) 2,648.50 mg/kg
ATEmix (inhalation-gas) 1,241,240.00 ppm

Unknown acute toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Base oil 64742-94-5	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 590 mg/m ³ (Rat) 4 h
Base oil 64742-52-5	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	-
2-butoxyethanol 111-76-2	= 470 mg/kg (Rat)	= 435 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h = 486 ppm (Rat) 4 h
Naphthalene 91-20-3	= 1110 mg/kg (Rat)	= 1120 mg/kg (Rabbit)	> 0.4 mg/L (Rat) 4 h
Morpholine 110-91-8	= 1050 mg/kg (Rat)	310 - 810 mg/kg (Rabbit)	> 8000 ppm (Rat) 8 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

Classification based on data available for ingredients. Causes burns. Causes serious eye damage.

Respiratory or skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

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

Chemical name	European Union
Base oil	Carc. 1B
Naphthalene	Carc. 2

Reproductive toxicity

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

STOT - single exposure

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

STOT - repeated exposure

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

Aspiration hazard

Based on product level data, this product does not meet the requirement to be classified as an aspiration hazard. However, this product contains an ingredient that may cause aspiration if swallowed. (Naphthalene, 1-methyl-).

11.2. Information on other hazards**11.2.1. Endocrine disrupting properties**

Endocrine disrupting properties No information available.

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.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Base oil 64742-94-5	-	LC50: =19mg/L (96h, Pimephales promelas) LC50: =2.34mg/L (96h, Oncorhynchus mykiss) LC50: =1740mg/L (96h, Lepomis macrochirus) LC50: =45mg/L (96h, Pimephales promelas) LC50: =41mg/L (96h, Pimephales promelas)	-	EC50: =0.95mg/L (48h, Daphnia magna)
Base oil 64742-52-5	-	LC50: >5000mg/L (96h, Oncorhynchus mykiss)	-	EC50: >1000mg/L (48h, Daphnia magna)
2-butoxyethanol 111-76-2	-	LC50: =1490mg/L (96h, Lepomis macrochirus) LC50: =2950mg/L (96h, Lepomis macrochirus)	-	EC50: >1000mg/L (48h, Daphnia magna)
Naphthalene 91-20-3	-	LC50: 0.91 - 2.82mg/L (96h, Oncorhynchus mykiss)	-	EC50: 1.09 - 3.4mg/L (48h, Daphnia magna)
Morpholine 110-91-8	EC50: =28mg/L (96h, Pseudokirchneriella subcapitata)	LC50: =350mg/L (96h, Lepomis macrochirus) LC50: 375 - 460mg/L (96h, Oncorhynchus mykiss) LC50: >1000mg/L (96h, Brachydanio rerio)	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential**Bioaccumulation****Component Information**

Chemical name	Partition coefficient
Base oil	6.5
2-butoxyethanol	0.81

Naphthalene	3.4
Morpholine	-0.84

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Base oil 64742-94-5	The substance is not PBT / vPvB
Base oil 64742-52-5	The substance is not PBT / vPvB
2-butoxyethanol 111-76-2	The substance is not PBT / vPvB
Naphthalene 91-20-3	The substance is not PBT / vPvB
Morpholine 110-91-8	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

Other adverse effects No information available.

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, (-104°C C.C.), 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 64742-94-5	RG 84
2-butoxyethanol 111-76-2	RG 84

Germany

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

TA Luft (German Air Pollution Control Regulation)

Chemical name	Number	Class
Morpholine	5.2.5	Class I

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 - 64742-52-5	Use restricted. See entry 28. Use restricted. See entry 75.	-
2-butoxyethanol - 111-76-2	Use restricted. See entry 75.	-
Naphthalene - 91-20-3	Use restricted. See entry 75.	-
Morpholine - 110-91-8	Use restricted. See entry 75.	-

Persistent Organic Pollutants

Not applicable

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

P3a - FLAMMABLE AEROSOLS

P3b - FLAMMABLE AEROSOLS

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 - 64742-94-5	-	25000
Base oil - 64742-52-5	-	25000

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

Not applicable

EU - Water Framework Directive (2000/60/EC)

Chemical name	EU - Water Framework Directive (2000/60/EC)
Naphthalene - 91-20-3	Priority substance

EU - Environmental Quality Standards (2008/105/EC)

Chemical name	EU - Environmental Quality Standards (2008/105/EC)
Naphthalene - 91-20-3	Priority substance

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**

H226 - Flammable liquid and vapour
 H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H312 - Harmful in contact with skin
 H314 - Causes severe skin burns and eye damage
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H331 - Toxic if inhaled
 H332 - Harmful if inhaled
 H350 - May cause cancer
 H351 - Suspected of causing cancer
 H400 - Very toxic to aquatic life
 H410 - Very 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)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation
SCBA	Self-contained breathing apparatus		

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

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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Disclaimer

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End of Safety Data Sheet