

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

1.1. Product identifier

Product form : Mixture
Trade name : KOPR-KOTE® Anti-Seize
Product code : J465
Product group : Mixtures

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Whitmore Manufacturing LLC
930 Whitmore Drive
75087 Rockwall, Texas
USA
T 1.972.771.1000
Regulatory@whitmores.com - www.jetlube.com

Distributor

Whitmore Europe Limited
Unit 9
Foster Avenue, Woodside Park Industrial Estate
Dunstable, Bedfordshire, LU5 5TA
United Kingdom
T +44 1707 379870
Regulatory@whitmores.com - www.whitmores.com

1.4. Emergency telephone number

Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
Within USA and Canada: 1.800.424.9300
Outside USA and Canada: +1.703.527.3887
(collect calls accepted)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	Chemtrec - United Kingdom	London	Local (City) +44 20 3807 3798	
United Kingdom	Chemtrec - United Kingdom		Local (National) +44 870 820 0418	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazardous to the aquatic environment – Acute Hazard, Category 1 H400

Hazardous to the aquatic environment – Chronic Hazard, Category 1 H410

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

Adverse physicochemical, human health and environmental effects

Very toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP)



GHS09

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P273 - Avoid release to the environment.
P391 - Collect spillage.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

Component	
1,2-propanediol (57-55-6)	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
white mineral oil (petroleum) (8042-47-5)	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
graphite (7782-42-5)	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
quartz, $1\% \leq \text{conc respirable crystalline silica} < 10\%$ (14808-60-7)	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
chalk (1317-65-3)	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
talc (14807-96-6)	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
copper (7440-50-8)	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

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 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
copper substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 7440-50-8 EC-No.: 231-159-6 EC Index-No.: 029-019-01-X	9.8	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
graphite substance with national workplace exposure limit(s) (GB)	CAS-No.: 7782-42-5 EC-No.: 231-955-3	9.31 – 9.7608	Aquatic Chronic 2, H411
white mineral oil (petroleum)	CAS-No.: 8042-47-5 EC-No.: 232-455-8	4.707945	Asp. Tox. 1, H304
talc substance with national workplace exposure limit(s) (GB)	CAS-No.: 14807-96-6 EC-No.: 238-877-9	≤ 4	Not classified
chalk substance with national workplace exposure limit(s) (GB)	CAS-No.: 1317-65-3 EC-No.: 215-279-6	≥ 3.686	Not classified
calcium sulfate	CAS-No.: 7778-18-9 EC-No.: 231-900-3	2	Acute Tox. 4 (Oral), H302 Aquatic Chronic 3, H412
molybdenum(IV) sulfide substance with national workplace exposure limit(s) (GB)	CAS-No.: 1317-33-5 EC-No.: 215-263-9	> 1.98	Not classified
1,2-propanediol substance with national workplace exposure limit(s) (GB)	CAS-No.: 57-55-6 EC-No.: 200-338-0	1.329372	Not classified
quartz, $1\% \leq \text{conc respirable crystalline silica} < 10\%$ substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 14808-60-7 EC-No.: 238-878-4	0.0392 – 0.441	Not classified

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Exercise caution. Spill area may be slippery.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Mechanically recover the product.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

1,2-propanediol (57-55-6)	
United Kingdom - Occupational Exposure Limits	
Local name	Propane-1,2-diol
WEL TWA (OEL TWA) [1]	10 mg/m ³ particulates 474 mg/m ³ total vapour and particulates
WEL TWA (OEL TWA) [2]	150 ppm total vapour and particulates
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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graphite (7782-42-5)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m ³ 4 mg/m ³
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Silica crystalline (Quartz)
IOEL TWA	0.05 mg/m ³ (respirable dust)
Remark	(Year of adoption 2003)
Regulatory reference	SCOEL Recommendations
United Kingdom - Occupational Exposure Limits	
Local name	Silica
WEL TWA (OEL TWA) [1]	0.1 mg/m ³ respirable crystalline
Regulatory reference	EH40/2005 (Third edition, 2018). HSE
chalk (1317-65-3)	
United Kingdom - Occupational Exposure Limits	
Local name	Calcium carbonate (Limestone, Marble)
WEL TWA (OEL TWA) [1]	10 mg/m ³ total inhalable 4 mg/m ³ respirable
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
molybdenum(IV) sulfide (1317-33-5)	
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m ³
WEL STEL (OEL STEL)	20 mg/m ³
talc (14807-96-6)	
United Kingdom - Occupational Exposure Limits	
Local name	Talc
WEL TWA (OEL TWA) [1]	1 mg/m ³ respirable dust
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
copper (7440-50-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Copper Kobber
IOEL TWA	0.01 mg/m ³ (respirable fraction)
Remark	(Year of adoption 2014) (Adopsjonsår 2014)
Regulatory reference	SCOEL Recommendations SCOEL anbefalinger
United Kingdom - Occupational Exposure Limits	
Local name	Copper
WEL TWA (OEL TWA) [1]	0.2 mg/m ³
WEL STEL (OEL STEL)	2 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

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8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Wear eye protection

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Neoprene or nitrile rubber gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR), Neoprene rubber (HNBR)	2 (> 30 minutes)	0.3 mm - 0.6 mm		

8.2.2.3. Respiratory protection

Respiratory protection:

No respiratory protection needed under normal use conditions

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Metallic.
Appearance	: Paste.
Odour	: petroleum-like odour.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: ≥ 171 °C Cleveland Open Cup Method
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available

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pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

1,2-propanediol (57-55-6)

LD50 oral rat	22000 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit
ATE CLP (oral)	22000 mg/kg bodyweight

white mineral oil (petroleum) (8042-47-5)

LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read-across, Oral)
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal)
LC50 Inhalation - Rat	> 5 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Read-across, Inhalation (aerosol))

graphite (7782-42-5)

LD50 oral rat	> 2000 mg/kg (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 2000 mg/m ³ air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))
LC50 Inhalation - Rat (Dust/Mist)	> 2 mg/l Source: ECHA

chalk (1317-65-3)

LD50 oral rat	6450 mg/kg (Rat, Literature study, Oral)
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chalk (1317-65-3)	
LD50 dermal rabbit	> 2000 mg/kg
ATE CLP (oral)	6450 mg/kg bodyweight
calcium sulfate (7778-18-9)	
LD50 oral rat	> 1581 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LC50 Inhalation - Rat	> 3.26 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
ATE CLP (oral)	500 mg/kg bodyweight
molybdenum(IV) sulfide (1317-33-5)	
LD50 oral rat	> 6000 mg/kg (Rat, Oral)
talc (14807-96-6)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 2.1 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))
LC50 Inhalation - Rat (Dust/Mist)	> 2.1 mg/l Source: ECHA
copper (7440-50-8)	
LD50 oral rat	300 – 500 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male / female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 5.11 mg/l (OECD 436: Acute inhalation toxicity-acute toxic class method, 4 h, Rat, Male / female, Experimental value, Inhalation)
ATE CLP (oral)	300 mg/kg bodyweight
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
1,2-propanediol (57-55-6)	
pH	6.5 – 7.5 (50 %)
graphite (7782-42-5)	
pH	7 (1.3 %)
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
pH	5 – 8 (40 %, 20 °C)
chalk (1317-65-3)	
pH	8.5 – 9
calcium sulfate (7778-18-9)	
pH	6 – 7.6 (20 %)
molybdenum(IV) sulfide (1317-33-5)	
pH	5 – 8 (10 %)
talc (14807-96-6)	
pH	9
copper (7440-50-8)	
pH	No data available in the literature
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)

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1,2-propanediol (57-55-6)	
pH	6.5 – 7.5 (50 %)
graphite (7782-42-5)	
pH	7 (1.3 %)
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
pH	5 – 8 (40 %, 20 °C)
chalk (1317-65-3)	
pH	8.5 – 9
calcium sulfate (7778-18-9)	
pH	6 – 7.6 (20 %)
molybdenum(IV) sulfide (1317-33-5)	
pH	5 – 8 (10 %)
talc (14807-96-6)	
pH	9
copper (7440-50-8)	
pH	No data available in the literature
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
IARC group	1 - Carcinogenic to humans
talc (14807-96-6)	
IARC group	3 - Not classifiable
calcium sulfate (7778-18-9)	
NOAEL (chronic, oral, animal/male, 2 years)	256 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: other:No data, Remarks on results: other:Effect type: carcinogenicity (migrated information)
NOAEL (chronic, oral, animal/female, 2 years)	284 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: other:No data, Remarks on results: other:Effect type: carcinogenicity (migrated information)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
1,2-propanediol (57-55-6)	
NOAEL (subchronic, oral, animal/male, 90 days)	443 mg/kg bodyweight Animal: cat, Animal sex: male
graphite (7782-42-5)	
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.000279 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
calcium sulfate (7778-18-9)	
LOAEL (oral, rat, 90 days)	237 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (oral, rat, 90 days)	79 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
1,2-propanediol (57-55-6)	
Viscosity, kinematic	41.84 mm²/s

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white mineral oil (petroleum) (8042-47-5)	
Viscosity, kinematic	> 3 mm²/s (40 °C, ISO 3104: Determination of kinematic viscosity and calculation of dynamic viscosity)
chalk (1317-65-3)	
Viscosity, kinematic	Not applicable
copper (7440-50-8)	
Viscosity, kinematic	Not applicable (solid)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Dangerous for the environment. Very toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Not rapidly degradable

1,2-propanediol (57-55-6)	
LC50 - Fish [1]	51400 mg/l Test organisms (species): Pimephales promelas
LC50 - Fish [2]	51600 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 72h - Algae [1]	19300 mg/l Test organisms (species): Skeletonema costatum
EC50 72h - Algae [2]	24200 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	19100 mg/l Test organisms (species): Skeletonema costatum
EC50 96h - Algae [2]	19000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	24200 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

white mineral oil (petroleum) (8042-47-5)	
LC50 - Fish [1]	> 100 mg/l

graphite (7782-42-5)	
LC50 - Fish [1]	> 100 mg/l
EC50 - Crustacea [1]	> 100 mg/l
EC50 72h - Algae [1]	19 mg/l
EC50 72h - Algae [2]	7.2 mg/l
ErC50 algae	> 100 mg/l
NOEC (chronic)	47 mg/l

chalk (1317-65-3)	
LC50 - Fish [1]	> 10000 mg/l (96 h, Oncorhynchus mykiss, Literature)
EC50 - Crustacea [1]	> 1000 mg/l (48 h, Daphnia magna, Literature)
EC50 72h - Algae [1]	> 200 mg/l (Desmodesmus subspicatus, Literature)

calcium sulfate (7778-18-9)	
LC50 - Fish [1]	> 79 mg/l Test organisms (species): Oryzias latipes
EC50 72h - Algae [1]	> 79 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	3200 mg/l Source: ECOTOX

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talca (14807-96-6)	
LC50 - Fish [1]	89581 mg/l (ECOSAR v1.00, 96 h, Pisces, Fresh water, QSAR)
EC50 96h - Algae [1]	7203 mg/l (ECOSAR v1.00, Algae, Fresh water, QSAR)
copper (7440-50-8)	
LC50 - Fish [1]	1.25 mg/l (APHA, 96 h, Cyprinus carpio, Fresh water, Experimental value)
EC50 - Crustacea [1]	0.03 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
12.2. Persistence and degradability	
1,2-propanediol (57-55-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.96 – 1.08 g O ₂ /g substance
Chemical oxygen demand (COD)	1.63 g O ₂ /g substance
ThOD	1.69 g O ₂ /g substance
white mineral oil (petroleum) (8042-47-5)	
Persistence and degradability	Not rapidly degradable.
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Persistence and degradability	Not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
chalk (1317-65-3)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
calcium sulfate (7778-18-9)	
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
molybdenum(IV) sulfide (1317-33-5)	
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
talca (14807-96-6)	
Persistence and degradability	Biodegradability in soil: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
copper (7440-50-8)	
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
12.3. Bioaccumulative potential	
1,2-propanediol (57-55-6)	
BCF - Other aquatic organisms [1]	0.09
Partition coefficient n-octanol/water (Log Pow)	-1.07 (Experimental value, EU Method A.8: Partition Coefficient, 20.5 °C)
Bioaccumulative potential	Not bioaccumulative.

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white mineral oil (petroleum) (8042-47-5)	
Partition coefficient n-octanol/water (Log Pow)	> 6 (calculated value)
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Bioaccumulative potential	Bioaccumulation unlikely.
calcium sulfate (7778-18-9)	
Bioaccumulative potential	No bioaccumulation data available.
talca (14807-96-6)	
BCF - Other aquatic organisms [1]	3.162 l/kg (BCFBAF v3.01, Fresh water, QSAR)
Partition coefficient n-octanol/water (Log Pow)	-9.4 (QSAR, KOWWIN, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
copper (7440-50-8)	
Bioaccumulative potential	Not bioaccumulative.
12.4. Mobility in soil	
1,2-propanediol (57-55-6)	
Surface tension	71.6 mN/m (21.5 °C, 1.01 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.46 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.
white mineral oil (petroleum) (8042-47-5)	
Ecology - soil	Product adsorbs onto the soil.
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	
Ecology - soil	Low potential for mobility in soil.
chalk (1317-65-3)	
Ecology - soil	No (test) data on mobility of the substance available.
molybdenum(IV) sulfide (1317-33-5)	
Ecology - soil	Adsorbs into the soil.
talca (14807-96-6)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.5 (log Koc, SRC PCKOCWIN v2.0, QSAR)
copper (7440-50-8)	
Ecology - soil	No (test) data on mobility of the substance available.
12.5. Results of PBT and vPvB assessment	
Component	
1,2-propanediol (57-55-6)	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
white mineral oil (petroleum) (8042-47-5)	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
graphite (7782-42-5)	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
quartz, 1%≤conc respirable crystalline silica<10% (14808-60-7)	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
chalk (1317-65-3)	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
talca (14807-96-6)	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
copper (7440-50-8)	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

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12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available






SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3077	UN 3077	UN 3077	UN 3077	UN 3077
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : copper)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : copper)	Environmentally hazardous substance, solid, n.o.s. (CONTAINS : copper)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : copper)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : copper)
Transport document description				
UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : copper), 9, III, (-)	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : copper), 9, III, MARINE POLLUTANT	UN 3077 Environmentally hazardous substance, solid, n.o.s. (CONTAINS : copper), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : copper), 9, III	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS : copper), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

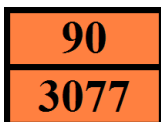
Classification code (ADR)	: M7
Special provisions (ADR)	: 274, 335, 375, 601
Limited quantities (ADR)	: 5kg
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P002, IBC08, LP02, R001
Special packing provisions (ADR)	: PP12, B3
Mixed packing provisions (ADR)	: MP10
Portable tank and bulk container instructions (ADR)	: T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (ADR)	: TP33
Tank code (ADR)	: SGAV, LGBV
Vehicle for tank carriage	: AT

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Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V13
Special provisions for carriage - Bulk (ADR)	: VC1, VC2
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
Orange plates	:



Tunnel restriction code (ADR)	: -
EAC code	: 2Z

Transport by sea

Special provisions (IMDG)	: 274, 335, 966, 967, 969
Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP02, P002
Special packing provisions (IMDG)	: PP12
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B3
Tank instructions (IMDG)	: BK1, BK2, BK3, T1
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A
Stowage and handling (IMDG)	: SW23

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y956
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 956
PCA max net quantity (IATA)	: 400kg
CAO packing instructions (IATA)	: 956
CAO max net quantity (IATA)	: 400kg
Special provisions (IATA)	: A97, A158, A179, A197, A215
ERG code (IATA)	: 9L

Inland waterway transport

Classification code (ADN)	: M7
Special provisions (ADN)	: 274, 335, 375, 601
Limited quantities (ADN)	: 5 kg
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T* B**
Equipment required (ADN)	: PP, A***
Number of blue cones/lights (ADN)	: 0
Additional requirements/Remarks (ADN)	: * Only in the molten state. ** For carriage in bulk see also 7.1.4.1. *** Only in the case of transport in bulk.

Rail transport

Classification code (RID)	: M7
Special provisions (RID)	: 274, 335, 375, 601
Limited quantities (RID)	: 5kg
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P002, IBC08, LP02, R001
Special packing provisions (RID)	: PP12, B3

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Mixed packing provisions (RID)	: MP10
Portable tank and bulk container instructions (RID)	: T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (RID)	: TP33
Tank codes for RID tanks (RID)	: SGAV, LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W13
Special provisions for carriage – Bulk (RID)	: VC1, VC2
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW31
Colis express (express parcels) (RID)	: CE11
Hazard identification number (RID)	: 90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number

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Abbreviations and acronyms:	
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
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
Asp. Tox. 1	Aspiration hazard, Category 1
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.