

Safety Data Sheet

Version 2.0
Issue Date 30/05/2023
Supersedes: 24/03/2021

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

1.1. Product identifier

Product form : Mixture
Trade name : Zerocol SP-OAT 64/65
Product code: : 2643, 2644
UFI : KH4K-2TR8-WH6U-URVU

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Antifreeze

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Granville Oil & Chemicals Ltd
29 Goldthorpe Ind. Est.,
Goldthorpe,
Rotherham,
South Yorkshire,
S63 9BL
+44 (0)1709 890099
lab@granvilleoil.com

Other

Veedol Ireland Ltd
77 Camden Street Lower,
Saint Kevin's,
Dublin,
Ireland
D02 XE80,
+353 151 363 47

1.4. Emergency telephone number

Emergency number : +44 (0)1709 890099

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Oral) H302
STOT RE 2 H373

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

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word : Warning

Contains : ethanediol; ethylene glycol

Hazard statements (CLP) : H302 - Harmful if swallowed.
H373 - May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

Precautionary statements (CLP) : P260 - Do not breathe vapours, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P314 - Get medical advice/attention if you feel unwell.
P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Other hazards : Results of PBT and vPvB assessment : Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH 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

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanediol; ethylene glycol substance with a Community workplace exposure limit	(CAS-No.) 107-21-1 (EC-No.) 203-473-3 (EC Index) 603-027-00-1 (REACH-no) 01-2119456816-28-XXXX / UK-01-1060922537-9-0026	90 – 100	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT RE 2, H373

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice	: First aider: Pay attention to self-protection!. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance.
Inhalation	: Remove casualty to fresh air and keep warm and at rest. In case of doubt or persistent symptoms, consult always a physician.
Skin contact	: Remove contaminated clothing and shoes. Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician.
Eyes contact	: Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of doubt or persistent symptoms, consult always a physician.
Ingestion	: Rinse mouth thoroughly with water. Get medical advice/attention.

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

Inhalation	: May cause respiratory irritation. The following symptoms may occur: Cough, Dizziness, Headache.
Skin contact	: May be irritating. May be absorbed through the skin. Chronic exposure may cause dermatitis. The following symptoms may occur: Dry skin.
Eyes contact	: May cause slight irritation. The following symptoms may occur: erythema (redness), Pain.
Ingestion	: Harmful if swallowed. The following symptoms may occur: Abdominal pain, Drowsiness, Dizziness, Nausea, Headache, Vomiting, Unconsciousness, Impairment of the nervous system, Liver and kidney injuries may occur.
Chronic symptoms	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

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	: carbon dioxide (CO ₂), powder, alcohol-resistant foam, water spray. Unsuitable extinguishing media
extinguishing media	: Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards	: Not flammable. Heating will cause a rise in pressure with a risk of bursting.
Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO ₂).

5.3. Advice for firefighters

Firefighting instructions	: Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
Other information	: Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures 6.1.1.

For non-emergency personnel

For non-emergency personnel **6.1.2.** : Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Dam up the liquid spill. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Recover large spills by pumping (use an explosion proof or hand pump). Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Avoid release to the environment.

Hygiene measures : Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a cool, well-ventilated place. Hygroscopic. Do not store near or with any of the incompatible materials listed in section 10. Bund storage facilities to prevent soil and water pollution in the event of spillage.

Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Special rules on packaging : Containers which are opened should be properly resealed and kept upright to prevent leakage.

Packaging materials : Keep only in the original container. Stainless steel. Carbon steel. Glass.

7.3. Specific end use(s)

Antifreeze.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethanediol; ethylene glycol (107-21-1)		
EU	IOEL TWA	52 mg/m ³
EU	IOEL TWA [ppm]	20 ppm
EU	IOEL STEL	104 mg/m ³
EU	IOEL STEL [ppm]	40 ppm
EU	Remark	Possibility of significant uptake through the skin
Austria	MAK (OEL TWA)	26 mg/m ³
Austria	MAK (OEL TWA) [ppm]	10 ppm
Austria	MAK (OEL STEL)	52 mg/m ³
Austria	MAK (OEL STEL) [ppm]	20 ppm
Belgium	OEL TWA	52 mg/m ³ (aerosol)
Belgium	OEL TWA	20 ppm (aerosol)
Belgium	OEL STEL	104 mg/m ³ (aerosol)
Belgium	OEL STEL	40 ppm (aerosol)
Bulgaria	OEL TWA	52 mg/m ³
Bulgaria	OEL TWA	20 ppm
Bulgaria	OEL STEL	104 mg/m ³
Bulgaria	OEL STEL	40 ppm
Croatia	GVI (OEL TWA) [1]	52 mg/m ³
Croatia	GVI (OEL TWA) [2]	20 ppm
Croatia	KGVI (OEL STEL)	104 mg/m ³
Croatia	KGVI (OEL STEL) [ppm]	40 ppm
Cyprus	OEL TWA	52 mg/m ³
Cyprus	OEL TWA	20 ppm
Cyprus	OEL STEL	104 mg/m ³
Cyprus	OEL STEL	40 ppm
Czech Republic	PEL (OEL TWA)	50 mg/m ³
Denmark	OEL TWA [1]	26 mg/m ³ 10 mg/m ³ (atomized)
Denmark	OEL TWA [2]	10 ppm
Denmark	OEL STEL	104 mg/m ³ 20 mg/m ³ (atomized)
Denmark	OEL STEL	40 ppm
Estonia	OEL TWA	52 mg/m ³ (total concentration of aerosol and vapor)
Estonia	OEL TWA	20 ppm (total concentration of aerosol and vapor)
Estonia	OEL STEL	104 mg/m ³ (total concentration of aerosol and vapor)

ethanediol; ethylene glycol (107-21-1)		
Estonia	OEL STEL	40 ppm (total concentration of aerosol and vapor)
Finland	HTP (OEL TWA) [1]	50 mg/m ³
Finland	HTP (OEL TWA) [2]	20 ppm
Finland	HTP (OEL STEL)	100 mg/m ³
Finland	HTP (OEL STEL) [ppm]	40 ppm
France	VME (OEL TWA)	52 mg/m ³ (indicative limit-vapor)
France	VME (OEL TWA) [ppm]	20 ppm (indicative limit-vapor)
France	VLE (OEL C/STEL)	104 mg/m ³ (indicative limit-vapor)
France	VLE (OEL C/STEL) [ppm]	40 ppm (indicative limit-vapor)
Germany	Occupational exposure limit value (mg/m ³) (TRGS900)	26 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	Occupational exposure limit value (ppm) (TRGS900)	10 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Gibraltar	OEL TWA	52 mg/m ³
Gibraltar	OEL TWA	20 ppm
Gibraltar	OEL STEL	104 mg/m ³
Gibraltar	OEL STEL	40 ppm
Greece	OEL TWA	125 mg/m ³ (vapor)
Greece	OEL TWA	50 ppm (vapor)
Greece	OEL STEL	125 mg/m ³ (vapor)
Greece	OEL STEL	50 ppm (vapor)
Hungary	AK (OEL TWA)	52 mg/m ³
Hungary	CK (OEL STEL)	104 mg/m ³
Ireland	OEL TWA [1]	52 mg/m ³
Ireland	OEL TWA [2]	20 ppm
Ireland	OEL STEL	104 mg/m ³
Ireland	OEL STEL	40 ppm
Italy	OEL TWA	52 mg/m ³
Italy	OEL TWA	20 ppm
Italy	OEL STEL	104 mg/m ³
Italy	OEL STEL	40 ppm
Latvia	OEL TWA	52 mg/m ³
Latvia	OEL TWA	20 ppm
Lithuania	IPRV (OEL TWA)	25 mg/m ³ (aerosol and vapor)
Lithuania	IPRV (OEL TWA) [ppm]	10 ppm (aerosol and vapor)
Lithuania	TPRV (OEL STEL)	50 mg/m ³ (aerosol and vapor)
Lithuania	TPRV (OEL STEL) [ppm]	20 ppm (aerosol and vapor)

ethanediol; ethylene glycol (107-21-1)		
Luxembourg	OEL TWA	52 mg/m ³
Luxembourg	OEL TWA	20 ppm
Luxembourg	OEL STEL	104 mg/m ³
Luxembourg	OEL STEL	40 ppm
Malta	OEL TWA	52 mg/m ³
Malta	OEL TWA	20 ppm
Malta	OEL STEL	104 mg/m ³
Malta	OEL STEL	40 ppm
Netherlands	TGG-8u (OEL TWA)	52 mg/m ³ (fume) 10 mg/m ³ (droplets)
Netherlands	TGG-15min (OEL STEL)	104 mg/m ³ (fume)
Netherlands	TGG-15min (OEL STEL) [ppm]	40 ppm (fume)
Poland	NDS (OEL TWA)	15 mg/m ³
Poland	NDSCh (OEL STEL)	50 mg/m ³
Portugal	OEL TWA	52 mg/m ³ (indicative limit value)
Portugal	OEL TWA	20 ppm (indicative limit value)
Portugal	OEL STEL	104 mg/m ³ (indicative limit value)
Portugal	OEL STEL	40 ppm (indicative limit value)
Portugal	OEL C	100 mg/m ³ (aerosol only)
Romania	OEL TWA	52 mg/m ³
Romania	OEL TWA	20 ppm
Romania	OEL STEL	104 mg/m ³
Romania	OEL STEL	40 ppm
Slovakia	NPHV (OEL TWA) [1]	52 mg/m ³
Slovakia	NPHV (OEL TWA) [2]	20 ppm
Slovakia	NPHV (OEL C)	104 mg/m ³
Slovenia	OEL TWA	52 mg/m ³
Slovenia	OEL TWA	20 ppm
Slovenia	OEL STEL	104 mg/m ³
Slovenia	OEL STEL	40 ppm
Spain	VLA-ED (OEL TWA) [1]	52 mg/m ³ (indicative limit value)
Spain	VLA-ED (OEL TWA) [2]	20 ppm (indicative limit value)
Spain	VLA-EC (OEL STEL)	104 mg/m ³
Spain	VLA-EC (OEL STEL) [ppm]	40 ppm
Sweden	NGV (OEL TWA)	25 mg/m ³ (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	NGV (OEL TWA) [ppm]	10 ppm (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)

ethanediol; ethylene glycol (107-21-1)		
Sweden	KGV (OEL STEL)	104 mg/m ³ (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
Sweden	KGV (OEL STEL) [ppm]	40 ppm (limit value applies to the combined concentration of vapor and aerosol-aerosol and vapor)
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m ³ (particulates) 52 mg/m ³ (vapour)
United Kingdom	WEL TWA (OEL TWA) [2]	20 ppm (vapour)
United Kingdom	WEL STEL (OEL STEL)	104 mg/m ³ (vapour) 30 mg/m ³ (calculated-particulate)
United Kingdom	WEL STEL (OEL STEL) [ppm]	40 ppm (vapour)
Norway	Grenseverdi (OEL TWA) [1]	52 mg/m ³ (total sum of gas and particulate matter (aerosol) of the substance)
Norway	Grenseverdi (OEL TWA) [2]	20 ppm (total sum of gas and particulate matter (aerosol) of the substance)
Norway	Korttidsverdi (OEL STEL)	104 mg/m ³ (total sum of gas and particulate matter (aerosol) of the substance)
Norway	Korttidsverdi (OEL STEL) [ppm]	40 ppm (total sum of gas and particulate matter (aerosol) of the substance)
Switzerland	MAK (OEL TWA) [1]	26 mg/m ³ (aerosol, vapour)
Switzerland	MAK (OEL TWA) [2]	10 ppm (aerosol, vapour)
Switzerland	KZGW (OEL STEL)	52 mg/m ³ (aerosol, vapour)
Switzerland	KZGW (OEL STEL) [ppm]	20 ppm (aerosol, vapour)
Australia	OES TWA [1]	10 mg/m ³ (particulate) 52 mg/m ³ (vapour)
Australia	OES TWA [2]	20 ppm (vapour)
Australia	OES STEL	104 mg/m ³ (vapour)
Australia	OES STEL [ppm]	40 ppm (vapour)
Canada (Quebec)	Plafond (OEL C)	127 mg/m ³ (mist and vapour)
Canada (Quebec)	Plafond (OEL C)	50 ppm (mist and vapour)
USA - ACGIH	ACGIH OEL TWA [ppm]	25 ppm (vapor fraction)
USA - ACGIH	ACGIH OEL STEL	10 mg/m ³ (inhalable particulate matter, aerosol only)
USA - ACGIH	ACGIH OEL STEL [ppm]	50 ppm (vapor fraction)

Additional information

: Recommended monitoring procedures :. Personal air monitoring. Room air monitoring

8.2. Exposure controls

Engineering measure(s)

: Provide adequate ventilation. Organisational measures to prevent/limit releases, dispersion and exposure. See Section 7 for information on safe handling.

Personal protective equipment

: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand protection	: Wear chemically resistant gloves (tested to EN374) . Suitable material: Neoprene. Nitrile rubber. Breakthrough time : > 8 h. Thickness : >0,3 mm. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Eye protection	: tightly fitting safety goggles (EN 166). During splash contact: face shield (EN 166)
Body protection	: Wear suitable protective clothing. Wear suitable coveralls to prevent exposure to the skin
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (DIN EN 140). full face mask (DIN EN 136). Filter type: A/P (EN14387). The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
Thermal hazard protection	: Not required for normal conditions of use. Use dedicated equipment.
Environmental exposure controls	: Avoid release to the environment. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Green.
Odour	: mild.
Odour threshold	: No data available
pH	: 7,5 – 9
Relative evaporation rate (butylacetate=1)	: No data available
Melting / freezing point	: -12 °C (-37 °C 50%)
Freezing point	: No data available
Initial boiling point and boiling range	: 197 °C (760 mmHg)
Flash point	: > 111 °C
Auto-ignition temperature	: > 400 °C
Decomposition temperature	: No data available
Flammability	: Not flammable
Vapour pressure	: No data available
Vapour density	: No data available
Relative density	: 1,13
Solubility	: Miscible with : Water, Acetone, Ethanol.
Partition coefficient n-octanol/water	: No data available
Kinematic viscosity	: No data available
Dynamic viscosity	: No data available
Explosive properties	: Not applicable. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: Not applicable. The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

Explosive limits : No data available

Particle size : Not applicable

Particle size distribution : Not applicable

Particle shape : Not applicable

Particle aspect ratio : Not applicable

Particle aggregation state : Not applicable

Particle agglomeration state : Not applicable

Particle specific surface area : Not applicable

Particle dustiness : Not applicable

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

None under normal conditions. Reference to other sections: 10.4 & 10.5.

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

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. See Section 7 for information on safe handling.

10.5. Incompatible materials

oxidising substances. Strong bases. Strong acids. Aluminium. Sulphuric acid. Perchloric acid. Chlorosulfonic acid. Sodium hydroxide. See Section 7 for information on safe handling.

10.6. Hazardous decomposition products

Reference to other sections 5.2.

SECTION 11: Toxicological information

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

Acute toxicity : Harmful if swallowed.

ATE CLP (oral)	531,011 mg/kg bodyweight
ethanediol; ethylene glycol (107-21-1)	

LD50/oral/rat	7712 mg/kg bodyweight
---------------	-----------------------

ethanediol; ethylene glycol (107-21-1)	
LD50 oral	7712 mg/kg
LD50/dermal/rat	10600 mg/kg
LD50/dermal/rabbit	> 3500 mg/kg
LD50 dermal	10600 mg/kg
LC50/inhalation/4h/rat	> 2,5 mg/l (Exposure time: 6 h)

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7,5 – 9
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7,5 – 9
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)

ethanediol; ethylene glycol (107-21-1)	
NOAEL (chronic, oral, animal/male, 2 years)	1000 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	1500 mg/kg bodyweight

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	: May cause damage to organs (kidneys) through prolonged or repeated exposure (oral).

ethanediol; ethylene glycol (107-21-1)	
NOAEL (oral, rat, 90 days)	200 mg/kg bodyweight/day OECD Guideline 407
NOAEL (dermal, rat/rabbit, 90 days)	2220 mg/kg bodyweight/day OECD 410

Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
-------------------	---

C2164	
Kinematic viscosity	No data available

Other information	: Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.
-------------------	--

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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

11.2.2 Other information

Other information : Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

ethanediol; ethylene glycol (107-21-1)	
LC50 - Fish [1]	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
LC50 - Fish [2]	14 – 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 96h - Algae [1]	6500 – 13000 mg/l (Species: Pseudokirchneriella subcapitata)
NOEC (chronic)	15380 mg/l (7d, Pimephales promelas)

12.2. Persistence and degradability

C2164	
Persistence and degradability	No additional information available.

ethanediol; ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable.
Biodegradation	90-100 Experimental data

12.3. Bioaccumulative potential

C2164	
Partition coefficient n-octanol/water	No data available
Bioaccumulative potential	No additional information available.

ethanediol; ethylene glycol (107-21-1)	
---	--

Partition coefficient n-octanol/water	-1,36
Bioaccumulative potential	Does not bioaccumulate.

12.4. Mobility in soil

C2164	
Mobility in soil	No data available

ethanediol; ethylene glycol (107-21-1)

Mobility in soil	Not expected to adsorb on soil.
------------------	---------------------------------

12.5. Results of PBT and vPvB assessment

C2164	
Results of PBT assessment	Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Other adverse effects : No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations

: Avoid release to the environment. Dispose of empty containers and wastes safely. See Section 7 for information on safe handling. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC)

: This material and its container must be disposed of as hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Special precautions for user : No data available

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Code: IBC : No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture 15.1.1.

EU-Regulations

Listed on REACH Annex XVII (Restriction Conditions). The following restrictions are applicable:

3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	C2164 ; ethanediol; ethylene glycol
--	-------------------------------------

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

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

15.1.2. National regulations

France

No ICPE	Installations classées Désignation de la rubrique	Code Régime	Rayon
na	Not Applicable	na	na

Germany

Regulatory reference : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

German storage class (LGK) : LGK 12 - Non-combustible liquids
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

Waterbezwaarlijkheid : B (5) - Weinig schadelijk voor in het water levende organismen
SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product.
Pregnant/breastfeeding women working with the product must not be in direct contact with the product.

15.2. Chemical safety assessment Not applicable

For the following substances of this mixture a chemical safety assessment has been carried out
ethanediol; ethylene glycol

SECTION 16: Other information

Indication of changes:

2.1	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
2.2	Extra phrases	Removed	
2.2	Precautionary statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	
7.2	Special rules on packaging	Added	
15.1	Water hazard class (WGK)	Modified	

Abbreviations and acronyms:

	ABM = Algemene beoordelingsmethodiek
--	--------------------------------------

	<p>ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods Code LEL = Lower Explosive Limit/Lower Explosion Limit UEL = Upper Explosion Limit/Upper Explosive Limit REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals</p>
	BTT = Breakthrough time (maximum wearing time)
	DMEL = Derived Minimal Effect level
	DNEL = Derived No Effect Level
	EC50 = Median Effective Concentration
	EL50 = Median effective level
	ErC50 = EC50 in terms of reduction of growth rate
	ErL50 = EL50 in terms of reduction of growth rate
	EWC = European waste catalogue
	LC50 = Median lethal concentration
	LD50 = Median lethal dose
	LL50 = Median lethal level
	NA = Not applicable
	NOEC = No observed effect concentration
	NOEL: no-observed-effect level
	NOELR = No observed effect loading rate
	NOAEC = No observed adverse effect concentration
	NOAEL = No observed adverse effect level
	N.O.S. = Not Otherwise Specified
	OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
	PNEC = Predicted No Effect Concentration
	Quantitative structure-activity relationship (QSAR)
	STOT = Specific Target Organ Toxicity
	TWA = time weighted average
	VOC = Volatile organic compounds
	WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Sources of key data used to compile the : ECHA (European Chemicals Agency), LOLI. datasheet
Training advice : Training staff on good practice. Manipulations are to be done only by qualified and authorised persons.
Other information : Classification - Assessment method: CLP Calculation method (Article 9).
Physicochemical hazard assessment: Information given is based on tests on the mixture itself.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Classification according to Regulation (EC) No. 1272/2008 [CLP] Labelling according to Regulation (EC) No. 1272/2008 [CLP]

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.
