Safety Data Sheet

According to (EC) No. 1907/2006
Day of issue: 10. January 2022
Day of revision: 22. June 2023

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

1.1. Product identifier
UFI: Not relevant
Buffers & Stabilizers
Effect Diluent Low, Animal-free, Cat. no. 7070
Effect Diluent Medium, Animal-free, Cat. no. 7080
Effect Diluent High, Animal-free, Cat. no. 7090
Effect Diluent KIT, Animal-free 3 x 25 ml, Cat. no. 7095
1.2. Relevant identified uses of the substance or mixture and uses advised against
For research and analysis. Restricted to professional users.
1.3. Details of the supplier of the safety data sheet
See below
Responsible person for the safety data sheet (e-mail): altox@altox.dk
1.4. Emergency telephone number
NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111
National Poisons Information Centre (Ireland): +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24-hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
CLP (1272/2008): None
2.2. Label elements
EUH208: Contains CMIT/MIT. May produce an allergic reaction.
EUH210: Safety data sheet available on request.
2.3. Other hazards
PBT/vPvB: The ingredients are not considered PBT/vPvB according to criteria in Annex XIII.
Endocrine disrupting properties: The substances are not identified as having endocrine disrupting properties in accordance with the criteria set out in Regulation 2017/2100 or Regulation 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

% w/w	Substance Name	CAS-no.	EC-no.	Index-no.	REACH reg.-no.	Classification
<10	Ethane 1,2-diol	107-21-1	203-473-3	603-027-00-1	01-2119456816-28	Acute Tox. 4;H302 (ATE=500) STOT RE 2;H373
<15 ppm	CMIT/MIT*	55965-84-9	None	613-167-00-5	None	Skin Corr. 1C;H314 Skin Sens. 1A;H317 Eye Dam. 1;H318 Acute Tox. 3;H301 Acute Tox. 2;H310 Acute Tox. 2;H330 Aquatic Acute 1;H400 (M=100) Aquatic Chronic 1;H410 (M=100) EUH071

* CMIT/MIT = reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)
SCL (Specific Concentration limits) classification: Skin Sens. 1A;H317: C ≥ 0,0015%; Skin Corr. 1C;H314: C ≥ 0,6; Eye Dam. 1;H318: C ≥ 0,6; Eye Irrit. 2;H319: 0,06% < C < 0,6%; Skin Irrit. 2;H315: 0,06% < C < 0,6%
ATE (Inhalation, dust) = 0,05 mg/l/4H; ATE (Dermal) = 50 mg/kg; ATE (Oral) = 100 mg/kg.

Wording of hazard statements - see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: Move the affected person to fresh air. Keep at rest. If needed: get medical attention.

Skin contact: Remove contaminated clothing and wash with soap and water. In case of rash, wound, or other skin irritation: Seek medical advice.

Eye contact: Flush with water or physiological salt water, holding eye lids open, remember to remove contact lenses, if any. If irritation persists: Seek medical advice.

Ingestion: Rinse mouth and drink plenty of water. Keep under surveillance. If needed: get medical attention.

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

May cause slight irritation of skin, eyes, lungs and gastrointestinal tract. May cause an allergic reaction.

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

Show this safety data sheet to a physician or emergency ward.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Not combustible; aqueous solution.

5.2. Special hazards arising from the substance or mixture

Not relevant (the product is not combustible).

5.3. Advice for firefighters

When extinguishing surrounding fires use breathing apparatus with an independent source of air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment - see section 8.

6.2. Environmental precautions

Avoid empty into drains. If large amounts of the mixture contaminate sewages, inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Absorb spilled liquid and place spillage in a plastic container. Further handling of spillage - see section 13.

6.4. Reference to other sections

See references above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin, eyes and clothing.

7.2. Conditions for safe storage, including any incompatibilities

At 2-8°C. Keep container closed when not in use. Protected against direct sunlight.

7.3. Specific end use(s)

See section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits (EH40/2018):

	Long-term exposure limit (8-hr TWA)	Short-term exposure limit (15-minute STEL)	Comment
Ethane-1,2-diol			Sk
Particulate	10 mg/m^3	-	
Vapour	20 ppm = 52 mg/m^3	40 ppm = 104 mg/m^3	

Sk: Can be absorbed through the skin

DNEL:	Exposure	Value	Population	Effects
Ethane-1,2-diol	Long term - inhalation	35 mg/m^3	Worker	Local
	Long term - dermal	106 mg/kg/d	Worker	Systemic
	Long term - inhalation	7 mg/m^3	Consumer	Local
	Long term - dermal	53 mg/kg/d	Consumer	Systemic

PNEC:	Medium	Value
Ethane-1,2-diol	Freshwater	10 mg/l
	Marine water	1 mg/l
	Intermittent release (Fresh water)	10 mg/l
	Intermittent release (Marine water)	1 mg/l
	Freshwaters sediment	37 mg/kg
	Marine water sediment	3.7 mg/kg
	Soil	1.53 mg/kg
	STP	199.5 mg/l

8.2. Exposure controls

Appropriate engineering controls: None particular.

Personal protective equipment:

Inhalation: Not relevant during normal use.

Skin: In case of prolonged or repeated work: Wear protective gloves (EN374) e.g. of nitrile. Breakthrough time: approximately 3 hours.

Eyes: Not relevant during normal use. Safety goggles (EN166) when there is risk of eye contact.

Environmental exposure controls: None particular.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless to slight yellow
Odour:	None
Melting point / freezing point (°C):	No available data
Initial boiling point and boiling range (°C):	~ 100
Flammability (solid, gas):	Not relevant
Lower and upper explosion limit (vol.-%):	Not relevant
Flash point (°C):	Not relevant
Auto-ignition temperature (°C):	Not relevant
Decomposition temperature (°C):	No available data
pH:	7.2
Kinematic viscosity:	No available data
Solubility:	Completely soluble in water
Partition coefficient: n-octanol/water, Log K_{ow}:	No available data
Vapour pressure (hPa, 20°C):	~ 2.3
Density and/or relative density (g/cm^3):	~ 1
Particle characteristics:	Not relevant - liquid

9.2. Other information

None relevant

SECTION 10: Stability and reactivity

10.1. Reactivity

No available data.

10.2. Chemical stability

Stable under normal conditions - see section 7.

10.3. Possibility of hazardous reactions

None known

10.4. Conditions to avoid

Excessive heating and freezing

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

None known

SECTION 11: Toxicological information

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

Acute toxicity:	Based on available data, the classification criteria are not met.
Skin corrosion/irritation:	Based on available data, the classification criteria are not met.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization:	Based on available data, the classification criteria are not met.
Germ cell mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
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 available data, the classification criteria are not met.

SECTION 11: Toxicological information (continued)

Hazard class	Data	Test	Data source
Acute toxicity:			
Inhalation	LC_{50} (rat) > 4.62 mg/l/4H (vapours) (CMIT/MIT)	No info	EU Biocide
Dermal	LD_{50} (rabbit) = 660 mg/kg (CMIT/MIT) LD_{50} (mouse) = >3500 mg/kg (Ethane-1,2-diol)	No info No info	EU Biocide Supplier
Oral	LD_{50} (rat) = 457 mg/kg (CMIT/MIT) LD_{50} (rat) = >4500 mg/kg (Ethane-1,2-diol)	No info No info	EU Biocide Supplier
Corrosion/irritation:	Corrosive, rabbit (CMIT/MIT) No skin or eye irritation, rabbit (Ethane-1,2-diol)	OECD 404 No info	EU Biocide ECHA
Sensitization:	Skin sensitization (CMIT/MIT) Not skin sensitising, guinea pig (Ethane-1,2-diol)	Buehler OECD 406	EU Biocide ECHA
CMR:	No CMR effects (Ethane-1,2-diol)	OECD 471, No info	ECHA

Information on likely routes of exposure: Skin, lungs and ingestion.

Symptoms:

Inhalation: Inhalation of atomized liquid may cause irritation of the upper respiratory tract.

Skin: May cause irritation with redness. Ethane-1,2-diol may be absorbed through the skin.

Eyes: May cause irritation with redness.

Ingestion: Ingestion of large amounts can cause irritation with nausea and stomach ache.

Chronic effects: Frequent contact with skin may cause sensitization. Symptoms are redness, swelling and itching. Prolonged or frequent exposure to vapours of volatile organic compounds may result in damage on liver, kidneys, blood or central nervous system (including brain damage).

11.2. Information on other hazards:

None known

SECTION 12: Ecological information

12.1. Toxicity

Aquatic	Data	Test (Media)	Data source
Fish	LC_{50} (Salmo gairdneri, 96h) = 0.19 mg/l (CMIT/MIT) LC_{50} (Pimephales promelas, 96h) = 72860 mg/l (Ethane-1,2-diol)	No info EPA 600/4-90/027	EU Biocide ECHA
Crustacean	EC_{50} (Crassostrea virginica, 48h) = 0.028 mg/l (CMIT/MIT) EC_{50} (Daphnia magna, 48h) = >100 mg/l (Ethane-1,2-diol)	No info OECD 202	EU Biocide ECHA
Algae	EC_{50} (Selenastrum cap. 72h) = 0.018 mg/l (CMIT/MIT) NOEC (Pseudokirchneriella sub. 72h) = >100 mg/l (Ethane-1,2-diol)	No info OECD 201	EU Biocide ECHA

12.2. Persistence and degradability

CMIT/MIT is not readily biodegradable (<56%, 28d, OECD 301B).

Ethane-1,2-diol is readily degradable (>90%, 10d, OECD Guideline 301A)

12.3. Bioaccumulative potential

CMIT/MIT: $1 < \text{Log } K_{ow} < 3$ – Possible moderate bioaccumulative.

Ethane-1,2-diol: $\text{Log } K_{ow} < 1$ - No bioaccumulation expected.

12.4. Mobility in soil

No available or applicable data.

12.5. Results of PBT and vPvB assessment

No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

12.6. Endocrine disrupting properties:

None known.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Disposal should be according to local, state or national legislation. Dispose of through authority facilities or pass to chemical disposal company.
EWC-code:
16 05 09 (mixture itself)
15 02 03 (Paper towel, inert material etc. contaminated with the mixture)

SECTION 14: Transport information

Not dangerous goods according to ADR/RID/IMDG/IATA
14.1. UN number or ID number: None
14.2. UN proper shipping name None
14.3. Transport hazard class(es) None
14.4. Packing group None
14.5. Environmental hazards None
14.6. Special precautions for user None
14.7. Maritime transport in bulk according to IMO instruments Not relevant

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
None
15.2. Chemical safety assessment
No CSR

SECTION 16: Other information

Hazard statements mentioned in section 3:
H301: Toxic if swallowed.
H302: Harmful if swallowed.
H310: Fatal in contact with skin.
H330: Fatal if inhaled.
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
EUH071: Corrosive to the respiratory tract.
EUH208: Contains ... May produce an allergic reaction.
EUH210: Safety data sheet available on request.
Abbreviations:
CMR = Carcinogenicity, mutagenicity and reproductive toxicity.
CSR = Chemical Safety Report
DNEL = Derived No-Effect Level
EC50 = Effect Concentration 50 %
FW = Fresh Water
LC_{50} = Lethal Concentration 50 %
LD_{50} = Lethal Dose 50 %
PBT = Persistent, Bioaccumulative, Toxic
PNEC = Predicted No-Effect Concentration
vPvB = very Persistent, very Bioaccumulative

SECTION 16: Other information (continued)

Literature:
ECHA = European Chemicals Agency
EU Biocide = Assessment Report for CMIT/MIT
Training advice:
No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.
Changes since the previous edition:
Section 7.2 (2020/878)

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