

MATERIAL SAFETY DATASHEET



ARROWJET AQUAGUARD

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

1.1 Product identifier

Trade name : ArrowJet Aquaguard
Material : 10-605209-5

Katun PN 61604

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

Use of the Sub-stance/Mixture : Printing inks, varnishes, and printing ink related material for professional users.

1.3 Details of the supplier of the safety data sheet

Company : Arrow System INC
2440 Jerauld Ave
Niagara Falls
NY 14305, USA

Telephone : +1 716-285-2974

E-mail address of person responsible for the SDS : sales@arrowsys.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2 H315: Causes skin irritation.
Eye irritation, Category 2 H319: Causes serious eye irritation.
Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

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Hazard statements	:	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.
Precautionary statements	:	Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ eye protection/ face protection. Response: P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 + P364 Take off contaminated clothing and wash it before reuse.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Preparation of resins, organic and inorganic pigments (not valid for unpigmented systems like extenders or dispersion lacquers) and additives in water as main solvent.

Components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
Propan-2-ol	67-63-0 200-661-7 01-2119457558-25	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 1 - < 10
Diethylene glycol butyl ether	112-34-5 203-961-6 01-2119475104-44	Eye Irrit. 2; H319	>= 1 - < 10
Docusate sodium	577-11-7 209-406-4	Skin Irrit. 2; H315 Eye Dam. 1; H318	>= 1 - < 3

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	01-2119491296-29		
2-Aminoethanol	141-43-5 205-483-3 01-2119486455-28	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412 specific concentration limit STOT SE 3; H335 >= 5 % Acute toxicity esti- mate Acute dermal toxicity: 1,100 mg/kg	>= 1 - < 2.5
2-Methyl-2H-isothiazol-3-one	2682-20-4 220-239-6 01-2120764690-50	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071 specific concentration limit Skin Sens. 1A; H317 >= 0.0015 % Skin Sens. 1A; H317 >= 0.0015 %	>= 0.0025 - < 0.025
1,2-Benzisothiazol-3(2H)-one	2634-33-5 220-120-9	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Acute 1; H400 specific concentration limit Skin Sens. 1; H317 >= 0.05 % Skin Sens. 1; H317 >= 0.05 %	>= 0.0025 - < 0.025
Mixture of 5-Chlor-2-methyl-2H-isothiazol-3-one (CMIT) and 2-	55965-84-9	Acute Tox. 3; H301 Acute Tox. 2; H330	<= 0.0002

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Methyl-2H-isothiazol-3-one (MIT) (3:1)		<p>Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071</p> <hr/> <p>M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100</p> <hr/> <p>specific concentration limit Skin Corr. 1C; H314 ≥ 0.6 % Skin Irrit. 2; H315 0.06 - < 0.6 % Eye Irrit. 2; H319 0.06 - < 0.6 % Skin Sens. 1A; H317 ≥ 0.0015 % Eye Dam. 1; H318 ≥ 0.6 %</p> <hr/> <p>Acute toxicity esti- mate</p> <p>Acute oral toxicity: 100 mg/kg Acute dermal toxicity: 300 mg/kg</p>	
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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | |
|-------------------------|--|
| General advice | : Victim to lie down in the recovery position, cover and keep him warm.
Never give anything by mouth to an unconscious person.
When symptoms persist or in all cases of doubt seek medical advice.
Show this safety data sheet to the doctor in attendance. |
| If inhaled | : Move to fresh air.
Keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration. |
| In case of skin contact | : Take off all contaminated clothing immediately. |

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Wash skin thoroughly with soap and water or use recognized skin cleanser.
Do NOT use solvents or thinners.

In case of eye contact : Remove contact lenses.
Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.
Seek medical advice.

If swallowed : If accidentally swallowed obtain immediate medical attention.
Keep at rest.
Rinse mouth with water.
Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment.

Further information : Use water spray to cool unopened containers.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Ventilate the area.
Refer to protective measures listed in sections 7 and 8.

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6.2 Environmental precautions

- Environmental precautions : Do not let product enter drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Clean with detergents. Avoid solvents.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8).
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Avoid contact with skin, eyes and clothing.
Avoid inhalation of vapour or mist.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection. Keep away from open flames, hot surfaces and sources of ignition.
- Hygiene measures : Store personal protection equipment in a clean location away from the work area. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of work-day. Keep away from food and drink.
- Fire-fighting class : Fires involving liquids or liquid containing substances. Also includes substances which become liquid at elevated temperatures.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Observe label precautions. No smoking. Prevent unauthorized access.
- Advice on common storage : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

7.3 Specific end use(s)

- Specific use(s) : Consult the technical guidelines for the use of this substance/mixture.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Propan-2-ol	67-63-0	TWA	400 ppm 999 mg/m ³	GB EH40
		STEL	500 ppm 1,250 mg/m ³	GB EH40
Diethylene glycol butyl ether	112-34-5	TWA	10 ppm 67.5 mg/m ³	2006/15/EC
	Further information: Indicative			
		STEL	15 ppm 101.2 mg/m ³	2006/15/EC
	Further information: Indicative			
		TWA	10 ppm 67.5 mg/m ³	GB EH40
		STEL	15 ppm 101.2 mg/m ³	GB EH40
2-Aminoethanol	141-43-5	TWA	1 ppm 2.5 mg/m ³	2006/15/EC
	Further information: Indicative, Identifies the possibility of significant uptake through the skin			
		STEL	3 ppm 7.6 mg/m ³	2006/15/EC
	Further information: Indicative, Identifies the possibility of significant uptake through the skin			
		TWA	1 ppm 2.5 mg/m ³	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	3 ppm 7.6 mg/m ³	GB EH40
	Further information: Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Propan-2-ol	Workers	Inhalation	Long-term systemic effects	500 mg/m ³
Remarks:	ECHA REACH-dossier information			
	Workers	Skin contact	Long-term systemic effects	888 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
Diethylene glycol butyl ether	Workers	Inhalation	Long-term systemic effects	67.5 mg/m ³
Remarks:	ECHA REACH-dossier information			
	Workers	Inhalation	Long-term local effects	67.5 mg/m ³
Remarks:	ECHA REACH-dossier information			

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	Workers	Inhalation	Acute local effects	101.2 mg/m3
Remarks:	ECHA REACH-dossier information			
	Workers	Skin contact	Long-term systemic effects	83 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
	Consumers	Inhalation	Long-term systemic effects	40.5 mg/m3
Remarks:	ECHA REACH-dossier information			
	Consumers	Inhalation	Long-term local effects	40.5 mg/m3
Remarks:	ECHA REACH-dossier information			
	Consumers	Inhalation	Acute local effects	60.7 mg/m3
Remarks:	ECHA REACH-dossier information			
	Consumers	Skin contact	Long-term systemic effects	50 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
	Consumers	Ingestion	Long-term systemic effects	5 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
Docusate sodium	Workers	Inhalation	Long-term systemic effects	1416.82 mg/m3
Remarks:	ECHA REACH-dossier information			
	Workers	Skin contact	Long-term systemic effects	200.89 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
2-Aminoethanol	Workers	Inhalation	Long-term systemic effects	1 mg/m3
Remarks:	ECHA REACH-dossier information			
	Workers	Inhalation	Long-term local effects	0.51 mg/m3
Remarks:	ECHA REACH-dossier information			
	Workers	Skin contact	Long-term systemic effects	3 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
	Consumers	Inhalation	Long-term systemic effects	0.18 mg/m3
Remarks:	ECHA REACH-dossier information			
	Consumers	Inhalation	Long-term local effects	0.28 mg/m3
Remarks:	ECHA REACH-dossier information			
	Consumers	Skin contact	Long-term systemic effects	1.5 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
	Consumers	Ingestion	Long-term systemic effects	1.5 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
1,2-Benzisothiazol-3(2H)-one	Workers	Inhalation	Long-term systemic effects	6.81 mg/m3
Remarks:	ECHA REACH-dossier information			
	Workers	Skin contact	Long-term systemic effects	0.966 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
2-Methyl-2H-isothiazol-3-one	Workers	Inhalation	Long-term local effects	0.021 mg/m3
Remarks:	ECHA REACH-dossier information			
	Workers	Inhalation	Acute local effects	0.043 mg/m3

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Remarks:	ECHA REACH-dossier information			
	Consumers	Inhalation	Long-term local effects	0.021 mg/m3
Remarks:	ECHA REACH-dossier information			
	Consumers	Inhalation	Acute local effects	0.043 mg/m3
Remarks:	ECHA REACH-dossier information			
	Consumers	Ingestion	Long-term systemic effects	0.027 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
	Consumers	Ingestion	Acute systemic effects	0.053 mg/kg bw/day
Remarks:	ECHA REACH-dossier information			
Mixture of 5-Chlor-2-methyl-2H-isothiazol-3-one (CMIT) and 2-Methyl-2H-isothiazol-3-one (MIT) (3:1)	Workers	Inhalation	Long-term local effects	0.02 mg/m3
Remarks:	ECHA REACH-dossier information			

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Diethylene glycol butyl ether	Fresh water	1.1 mg/l
Remarks:	ECHA REACH-dossier information	
	Marine water	0.11 mg/l
	ECHA REACH-dossier information	
	Intermittent use/release	11 mg/l
	ECHA REACH-dossier information	
	Sewage treatment plant	200 mg/l
	ECHA REACH-dossier information	
	Fresh water sediment	4.4 mg/kg dry weight (d.w.)
	ECHA REACH-dossier information	
	Marine sediment	0.44 mg/kg dry weight (d.w.)
	ECHA REACH-dossier information	
	Soil	0.32 mg/kg dry weight (d.w.)
	ECHA REACH-dossier information	
2-Aminoethanol	Fresh water	0.07 mg/l
Remarks:	ECHA REACH-dossier information	
	Marine water	0.007 mg/l
	ECHA REACH-dossier information	
	Intermittent use/release	0.028 mg/l
	ECHA REACH-dossier information	
	Sewage treatment plant	100 mg/l
	ECHA REACH-dossier information	
	Fresh water sediment	0.357 mg/kg dry weight (d.w.)
	ECHA REACH-dossier information	
	Marine sediment	0.036 mg/kg dry weight (d.w.)
	ECHA REACH-dossier information	
	Soil	1.29 mg/kg dry weight (d.w.)
	ECHA REACH-dossier information	
2-Methyl-2H-isothiazol-3-one	Fresh water	3.39 µg/l

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Remarks:	ECHA REACH-dossier information	
	Marine water	3.39 µg/l
	ECHA REACH-dossier information	
	Intermittent use/release	3.39 µg/l
	ECHA REACH-dossier information	
	Sewage treatment plant	0.23 mg/l
	ECHA REACH-dossier information	
	Soil	0.047 mg/kg dry weight (d.w.)
	ECHA REACH-dossier information	

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Chemical resistant safety glasses must be worn.

Hand protection

Remarks : The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin and body protection : Working clothes must not consist of textiles, which show a dangerous melting behaviour in case of fire. Skin should be washed after contact.

Protective measures : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour : colourless

Odour : characteristic

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Odour Threshold	:	not determined
Melting point/range	:	Not applicable
Boiling point	:	> 38 °C
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	67 °C
Auto-ignition temperature	:	not determined
Decomposition temperature	:	The substance or mixture is not classified self-reactive.
Decomposition temperature	:	
pH	:	not determined
Viscosity	:	> 21 mm ² /s (40 °C)
Viscosity, kinematic	:	
Partition coefficient: n-octanol/water	:	No data available

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Vapour pressure	:	< 1,100 hPa (50 °C)
Density	:	ca. 0.99 g/cm ³ (20 °C)
Relative vapour density	:	not determined

9.2 Other information

Explosives	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Self-ignition	:	No data available
Evaporation rate	:	not determined
Miscibility with water	:	immiscible

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Protect from frost, heat and sunlight.

10.5 Incompatible materials

Materials to avoid : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6 Hazardous decomposition products

Stable under recommended storage conditions.

SECTION 11: Toxicological information

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the UN GHS and classified for toxicological hazards accordingly. See Sections 2 and 3 for details.

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

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

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Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:

2-Aminoethanol:

Acute oral toxicity : LD50 (Rat): 1,089 mg/kg
Method: OECD Test Guideline 401
Remarks: ECHA REACH-dossier information

Acute dermal toxicity : Acute toxicity estimate: 1,100 mg/kg
Method: Converted acute toxicity point estimate

2-Methyl-2H-isothiazol-3-one:

Acute oral toxicity : LD50 (Rat, female): 120 mg/kg
Method: OPPTS 870.1100
Remarks: ECHA REACH-dossier information

LD50 (Rat, male): 232 - 249 mg/kg
Method: OPPTS 870.1100

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Remarks: ECHA REACH-dossier information

Acute inhalation toxicity : LC50 (Rat, male and female): 0.11 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Remarks: ECHA REACH-dossier information

Acute dermal toxicity : LD50 (Rat, male and female): 242 mg/kg
Method: OECD Test Guideline 402
Remarks: ECHA REACH-dossier information

Mixture of 5-Chlor-2-methyl-2H-isothiazol-3-one (CMIT) and 2-Methyl-2H-isothiazol-3-one (MIT) (3:1):

Acute oral toxicity : Acute toxicity estimate: 100 mg/kg
Method: Converted acute toxicity point estimate

Acute dermal toxicity : Acute toxicity estimate: 300 mg/kg
Method: Converted acute toxicity point estimate

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

2-Methyl-2H-isothiazol-3-one:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Corrosive
Remarks : ECHA REACH-dossier information

Serious eye damage/eye irritation

Product:

Remarks : This information is not available.

Components:

Diethylene glycol butyl ether:

Species : Rabbit
Result : irritating
Remarks : ECHA REACH-dossier information

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

2-Methyl-2H-isothiazol-3-one:

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Species : Guinea pig
Method : OECD Test Guideline 406
Result : Causes sensitisation.
Remarks : ECHA REACH-dossier information

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: Not classified due to lack of data.

Carcinogenicity

Product:

Carcinogenicity - Assessment : No data available

Reproductive toxicity

Product:

Reproductive toxicity - Assessment : Fertility classification not possible from current data.

STOT - single exposure

Product:

Remarks : No data available

STOT - repeated exposure

Product:

Remarks : No data available

Aspiration toxicity

Product:

No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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SECTION 12: Ecological information

Unless otherwise indicated, no data is available on the mixture itself. The mixture has been assessed following the summation method of the UN GHS and classified for eco-toxicological hazards accordingly.

12.1 Toxicity

Product:

Toxicity to fish : Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Components:

2-Aminoethanol:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 27.04 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: ECHA REACH-dossier information

2-Methyl-2H-isothiazol-3-one:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.934 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: ECHA REACH-dossier information

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 0.05 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: ECHA REACH-dossier information

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.044 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211
Remarks: ECHA REACH-dossier information

Mixture of 5-Chlor-2-methyl-2H-isothiazol-3-one (CMIT) and 2-Methyl-2H-isothiazol-3-one (MIT) (3:1):

M-Factor (Acute aquatic toxicity) : 100

M-Factor (Chronic aquatic toxicity) 100

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12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Components:

2-Aminoethanol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 90 %
Exposure time: 21 d
Method: OECD Test Guideline 301A
Remarks: ECHA REACH-dossier information

2-Methyl-2H-isothiazol-3-one:

Biodegradability : Inoculum: activated sludge
Result: Not readily biodegradable.
Biodegradation: 50 %
Exposure time: 29 d
Method: OECD Test Guideline 301B
Remarks: The 10 day time window criterion is not fulfilled.
ECHA REACH-dossier information

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: Does not bioaccumulate.

Components:

2-Aminoethanol:

Bioaccumulation : Remarks: The product is miscible in water and readily biodegradable in both water and soil. Accumulation is not expected.
ECHA REACH-dossier information

2-Methyl-2H-isothiazol-3-one:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

12.4 Mobility in soil

Product:

Mobility : Remarks: Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

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Components:

2-Aminoethanol:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..
Remarks: ECHA REACH-dossier information

2-Methyl-2H-isothiazol-3-one:

Assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT).. This substance is not considered to be very persistent and very bioaccumulating (vPvB)..

12.6 Endocrine disrupting properties,

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Environmental fate and pathways : The product itself has not been tested.

Additional ecological information : We have no quantitative data concerning the ecological effects of this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Dispose of in accordance with local regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Empty containers can be landfilled after cleaning, when in compliance with local regulations.

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

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14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3
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REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
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REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
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Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
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Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
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Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
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Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	:	Not applicable
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Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 7.34 %

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

SECTION 16: Other information

Full text of H-Statements

H225	: Highly flammable liquid and vapour.
H301	: Toxic if swallowed.
H302	: Harmful if swallowed.
H310	: Fatal in contact with skin.
H311	: Toxic in contact with skin.
H312	: Harmful in contact with skin.
H314	: Causes severe skin burns and eye damage.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H330	: Fatal if inhaled.
H332	: Harmful if inhaled.
H336	: May cause drowsiness or dizziness.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.
EUH071	: Corrosive to the respiratory tract.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Skin Corr.	: Skin corrosion
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitisation
STOT SE	: Specific target organ toxicity - single exposure
2006/15/EC	: Europe. Indicative occupational exposure limit values
GB EH40	: UK. EH40 WEL - Workplace Exposure Limits
2006/15/EC / TWA	: Limit Value - eight hours
2006/15/EC / STEL	: Short term exposure limit
GB EH40 / TWA	: Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	: Short-term exposure limit (15-minute reference period)

Further information

MATERIAL SAFETY DATASHEET



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Classification of the mixture:

Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317

Classification procedure:

Calculation method
Calculation method
Calculation method

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