

SAFETY DATA SHEET

MERGAL V684K



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

1.1 Product identifier

Product name : MERGAL V684K
Code : 302AB
Product description : Not available.
Product type : Liquid.
Other means of identification : Not available.

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

Identified uses
 In-can preservative. Preservative for metal working fluids.

1.3 Details of the supplier of the safety data sheet

e-mail address of person responsible for this SDS : B.J. Vernooij, SDS Specialist (vernooib@troycorp.com)

Supplier

TROY CHEMICAL COMPANY BV
 Uiverlaan 12e
 PO Box 132
 3145 XN Maassluis
 The Netherlands
 Phone: + 31 (0) 10 592-7494
 Fax: +31 (0) 10 592-8877

Hours of operation : Monday - Friday: 08.30 - 17.00 (CET)

1.4 Emergency telephone number

Emergency telephone number : ☎ 703-741-5970 (EN)

National advisory body/Poison Center

Austria: Vergiftungsinformationszentrale, 01/406 43 43	Belgium: Centre anti-poison/Antigiftcentrum 070 245245	Czech Republic: 1.7 Nouzové telefonní číslo: Toxikologické informační středisko, Na Bojišti 1, 128 08 Praha 2: telefon (24 hodin/den) 224919293, 224915402, 224914575	Denmark: Giftinformation: +45 35 31 60 60	Estonia: Mürgistusteabekeskus: 46662 Hädaabinumber: 112	Finland: Myrkytyskeskus 09-471977 or 09 4711
France: ORFILA (INRS): + 33 (0) 1 45 42 59 59	Germany: Giftnotrufzentrale Berlin: +49 030 - 192 40	Hungary: Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ) 1096 Budapest, Nagyvárud tér 2. +36-80-201199 (ingyenes, éjjel-nappal) +36-1-4766464	Ireland: NPIC:Phone 01-8092566; Fax: 01-8368476	Italy: Ospedale Niguarda Cà Granda, Milan 0266101029	Lithuania: Poison centre: 236 20 52
Netherlands: NVIC (medical personnel, 24/7): Tel: 030-2748888	Norway: Norwegian poison information center: 22 59 13 00	Poland: 112 (ogólny telefon alarmowy), 998 (straż pożarna), 999 (pogotowie medyczne); Ośrodki Informacji Toksykologicznej: +58 682 04 04 (Gdańsk), +12 411 99 99 (Kraków), +61 847 69 46 (Poznań), + 48 607 218 174 (Warszawa)	Slovakia: Toxikologické informačné centrum Limbova 5 833 05 Bratislava Tel. 02/5477 4166, 02/5477 4605	Slovenia: Center za obveščanje 112	Portugal: Centro de Informação Antivenenos: +351 808 250 143 Fax +351 213 303 275 (24 h/dia)
Sweden: 112	Switzerland: Schweizerisches Toxikologisches Informationszentrum: +41 - 1-145	Turkey: Not available.	United Kingdom (UK): NPIS 0870 800 6266	Spain: INSTITUTO NACIONAL DE TOXICOLOGIA 91 562 04 20	Greece: Children's hospital "P. Kyriakou", Thivon & Levadias 1, GR 11527, Goudi, Athens Tel. +30 210 7793 777
Latvia: Valsts ugunsdzēsības un glābšanas dienests, telefona numurs: 112. Toksikoloģijas un sepses klīnikas, Saindēšanās un zāļu informācijas centrs, Hipokrāta 2, Rīga, Latvija, LV-1038, tel.nr. +371 67042473	Croatia: Broj za izvanredna stanja: 112 Broj za medicinske informacije za Hrvatsku: 01 23 48 342 (Centar za kontrolu otrovanja)	Serbia: Broj telefona Nacionalnog centra za kontrolu trovanja: +381 11-662 381 (24 sata)	Bulgaria: Национален Токсикологичен Център (Токсикология Пирогов) - 02/9154409	Iceland: (+354) 543-2222	Romania: +40 21 3183606/ Institutul National de Sanatate Publica, Bucuresti, str. Dr. Leonte, nr. 1-3, sector 5

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Product definition** : Mixture**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Acute Tox. 4, H302

Skin Irrit. 2, H315

Eye Dam. 1, H318

Skin Sens. 1, H317

Aquatic Chronic 2, H411

Ingredients of unknown toxicity :**Ingredients of unknown ecotoxicity** : Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 14.2%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements**Hazard pictograms** :**Signal word** : Danger

Hazard statements : Harmful if swallowed.
 Causes serious eye damage.
 Causes skin irritation.
 May cause an allergic skin reaction.
 Toxic to aquatic life with long lasting effects.

Precautionary statements**General** : Not applicable.**Prevention** : Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection.

Response : SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Storage : Not applicable.**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : (ethylenedioxy) dimethanol
 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)

Supplemental label elements : Not applicable.**Special packaging requirements****Containers to be fitted with child-resistant fastenings** : Not applicable.**Tactile warning of danger** : Not applicable.**2.3 Other hazards****Other hazards which do not result in classification** : None known.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification	
			Regulation (EC) No. 1272/2008 [CLP]	Type
1,4-bis(2-ethoxyethyl)dimethylmethanol	REACH #: Biocide EC: 222-720-6 CAS: 3586-55-8	14.2	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318	[1]
magnesium nitrate	REACH #: <1 ton EC: 233-826-7 CAS: 10377-60-3	1 - 3	Ox. Sol. 3, H272	[2]
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)	REACH #: Biocide EC: Listed CAS: 55965-84-9 Index: 613-167-00-5	1.4	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) See Section 16 for the full text of the H statements declared above.	[1]

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Other hazards which do not result in classification

SECTION 4: First aid measures**4.1 Description of first aid measures**

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed**Potential acute health effects**

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

SECTION 5: Firefighting measures

Hazardous combustion products : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 sulfur oxides
 halogenated compounds
 metal oxide/oxides

5.3 Advice for firefighters

Special precautions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : Specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

See Section 1 for emergency contact information.
 See Section 8 for information on appropriate personal protective equipment.
 See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s). (Applicable when exposure scenario is available.)

7.1 Precautions for safe handling

SECTION 7: Handling and storage

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s). (Applicable when exposure scenario is available.)

8.1 Control parameters**Occupational exposure limits****Europe**

No exposure limit value known.

Austria

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)

GKV_MAK (Austria, 9/2007). Absorbed through skin. Skin sensitizer.

TWA: 0.05 mg/m³ 8 hours.

Estonia

Magnesium nitrate

Töökeskkonna keemiliste ohutegurite piirnormid määrus nr 293 (Estonia, 1/2008).

TWA: 0.5 mg/m³, (calculated as Mg) 8 hours. Form: respirable dust

TWA: 1 mg/m³, (calculated as Mg) 8 hours. Form: total dust

Germany

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)

TRGS900 MAK (Germany, 8/2004). Absorbed through skin.

Schichtmittelwert: 0.05 mg/m³ 8 hours. Form: All forms

Netherlands

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)

Nationale MAC-lijst (Netherlands, 3/2005). Notes: Administrative.

TGG: 0.2 mg/m³ 8 hours. Form: All forms

Romania

SECTION 8: Exposure controls/personal protection

(ethylene dioxy) dimethanol

HG 1218/2006 cu modificările și completările ulterioare (Romania, 1/2012).

VLA: 0.5 mg/m³ 8 hours.

Short term: 1 mg/m³ 15 minutes.

Slovenia

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)

Uradni list Republike Slovenije (Slovenia, 6/2007). Absorbed through skin.

TWA: 0.05 mg/m³ 8 hours.

KTV: 0.05 mg/m³, 4 times per shift, 15 minutes.

Switzerland

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)

SUVA (Switzerland, 12/2007). Notes: definitive Festlegung

Kurzzeitgrenzwerte: 0.4 mg/m³, 4 times per shift, 15 minutes.

Form: Inhalable fraction

SUVA (Switzerland, 11/2004). Notes: definitive Festlegung

MAK: 0.2 mg/m³ 8 hours. Form: Inhalable fraction

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Derived effect levels

No DELs available.

Predicted effect concentrations

No PECs available.

8.2 Exposure controls**Appropriate engineering controls**

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures**Hygiene measures**

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection**Hand protection**

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

SECTION 8: Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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

- Physical state** : Liquid.
- Color** : Clear. Yellow. [Light]
- Odor** : Faint odor.
- Odor threshold** : Not available.
- pH** : 3 to 5
- Melting point/freezing point** : <0°C
- Initial boiling point and boiling range** : 100°C
- Flash point** : Closed cup: 102°C
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Burning time** : Not applicable.
- Burning rate** : Not applicable.
- Upper/lower flammability or explosive limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 0.06
- Solubility(ies)** : Not available.
- Dispersibility properties** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : 400°C
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): 1.61 mPa·s
Kinematic (room temperature): 0.0152 cm²/s
Kinematic (40°C): 0.0101 cm²/s
- Explosive properties** : Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
- Oxidizing properties** : Not an oxidizer

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : No specific data.
- 10.5 Incompatible materials** : No specific data.
- 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 toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
MERGAL V684K	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	300 to 2000 mg/kg	-
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)	LD50 Oral	Rat	1096 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Route	ATE value
Inhalation (dusts and mists)	21.95 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
MERGAL V684K	Skin - Mild irritant	Rat	-	-	-

Conclusion/Summary : Not available.

Sensitizer

Product/ingredient name	Route of exposure	Species	Result
MERGAL V684K	skin	Guinea pig	Sensitizing

Conclusion/Summary : Not available.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
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)	-	Experiment: In vitro Subject: Bacteria	Negative
	-	Experiment: In vitro Subject: Mammalian-Animal	Negative

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

SECTION 11: Toxicological information**Reproductive toxicity****Conclusion/Summary** : Not available.**Teratogenicity****Conclusion/Summary** : Not available.**Specific target organ toxicity (single exposure)**

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.**Potential acute health effects****Inhalation** : No known significant effects or critical hazards.**Ingestion** : Harmful if swallowed.**Skin contact** : Causes skin irritation. May cause an allergic skin reaction.**Eye contact** : Causes serious eye damage.**Symptoms related to the physical, chemical and toxicological characteristics****Inhalation** : No specific data.**Ingestion** : Adverse symptoms may include the following:
stomach pains**Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur**Eye contact** : Adverse symptoms may include the following:
pain
watering
redness**Delayed and immediate effects and also chronic effects from short and long term exposure****Short term exposure****Potential immediate effects** : Not available.**Potential delayed effects** : Not available.**Long term exposure****Potential immediate effects** : Not available.**Potential delayed effects** : Not available.**Potential chronic health effects**

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> 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)	Sub-chronic NOAEL Oral	Rat	<5 mg/kg	90 days
	Sub-chronic NOAEL Dermal	Rat	<3 mg/kg	28 days

Conclusion/Summary : Not available.**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.**Carcinogenicity** : No known significant effects or critical hazards.**Mutagenicity** : No known significant effects or critical hazards.**Teratogenicity** : No known significant effects or critical hazards.

SECTION 11: Toxicological information**Developmental effects** : No known significant effects or critical hazards.**Fertility effects** : No known significant effects or critical hazards.**Other information** : Not available.**SECTION 12: Ecological information****12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
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)	EC50 0.161 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours (biomass)
	EC50 0.379 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours (growth rate)
	EC50 0.166 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours (biomass)
	EC50 0.47 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours (growth rate)
	NOEC 0.032 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours (growth rate)
	Acute EC50 0.018 mg/l	Algae	72 hours
	Acute EC50 >1 mg/l	Daphnia - Daphnia magna	21 days
	Acute EC50 1.02 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.58 mg/l	Fish - Danio rerio	96 hours
Chronic EC50 31.7 mg/l	Micro-organism	3 hours	
Chronic LOEL 1.6 mg/l	Fish - Danio rerio	34 days	
Chronic NOEC 0.5 mg/l	Fish - Danio rerio	34 days	

Conclusion/Summary : Not available.**12.2 Persistence and degradability**

Product/ingredient name	Test	Result	Dose	Inoculum
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)	-	<50 % - 10 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
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)	-	-	Not readily

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil**Soil/water partition coefficient (K_{oc})** : Not available.**Mobility** : Not available.

SECTION 12: Ecological information

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC)







Waste code	Waste designation
16 03 05*	organic wastes containing hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: Isothiazolinones)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: Isothiazolinones)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: Isothiazolinones)
14.3 Transport hazard class(es)	9  	9  	9  
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.

SECTION 14: Transport information

<p>14.6 Special precautions for user</p>	<p>Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</p>	<p>Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</p>	<p>Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.</p>
<p>Additional information</p>	<p>This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p>Tunnel code -</p>	<p>This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p>Emergency schedules (EmS) F-A, S-F</p>	<p>This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.</p>

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
[EU Regulation \(EC\) No. 1907/2006 \(REACH\)](#)

Annex XIV - List of substances subject to authorization

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Black List Chemicals : Not listed
Priority List Chemicals : Not determined
Industrial emissions (integrated pollution prevention and control) - Air : Not listed
Industrial emissions (integrated pollution prevention and control) - Water : Not listed

National regulations

Product registration : **Europe inventory:** All components are listed or exempted.
Australia inventory (AICS): All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory (ENCS): All components are listed or exempted.
Japan inventory (ISHL): Not determined.
Korea inventory: All components are listed or exempted.
Malaysia Inventory (EHS Register): Not determined.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI): All components are listed or exempted.

SECTION 15: Regulatory information

Turkey inventory: Not determined.

United States inventory (TSCA 8b): At least one component is not listed.

Canada inventory: At least one component is not listed.

Product registration number : -

Denmark

MAL-code : 5-6

Germany

Hazard class for water : 2 Appendix No. 4


Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed


15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.


SECTION 16: Other information


 Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
 Acute Tox. 4, H302	On basis of test data
Skin Irrit. 2, H315	On basis of test data
Eye Dam. 1, H318	On basis of test data
Skin Sens. 1, H317	On basis of test data
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements :  H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic 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.
H330 Fatal if inhaled.
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.

Full text of classifications [CLP/GHS] :  Acute Tox. 2, H330 ACUTE TOXICITY (inhalation) - Category 2
Acute Tox. 3, H301 ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H311 ACUTE TOXICITY (dermal) - Category 3
Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4
Aquatic Acute 1, H400 AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1, H410 AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2, H411 AQUATIC HAZARD (LONG-TERM) - Category 2
Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

SECTION 16: Other information

Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317	SKIN SENSITIZATION - Category 1

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Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.