

Product information CI 1300 CL (*corrosion inhibitor*)

Use

CI 1300 CL is a closed system and half closed system corrosion inhibitor. **CI 1300 CL** is composed of robust, excellent performing corrosion inhibitors, which maximise the performance of the treated systems.

CI 1300 CL provides provides multi-metal inhibition for aluminium, aluminium alloys, ferrous alloys (LCS, cast iron, stainless steel, galvanized steel) as well as for copper alloys.

CI 1300 CL is designed for use in industrial water systems such as chiller, cooling systems hot water systems, mixed glycol-water systems, engine cooling systems and compressor cooling systems. **CI 1300 CL** is specifically designed for use with deionised water. The range of temperature is between 5°C – 220°C.

Features

CI 1300 CL is less toxic compared to traditional formulations and contains no heavy metals, nitrite, molybdate or borate. The product provides an especially optimized new buffer system following SVHC regulations.

CI 1300 CL minimizes biocide need due to absence of nitrite. **CI 1300 CL** is compatible with glycol systems.

These data are to be seen as typical values and should not be considered as specifications.

Dosing

CI 1300 CL should be fed undiluted, directly into the system. The use of a dosing pump is recommended for ease of feeding. Dosage requirements vary and depend upon a number of system operation characteristics. Especially the maximum system temperature and the material surface temperature are essential. Optimum performance can often be assured when **CI 1300 CL** is fed to a clean system. Recommended dosage rate is between

$t < 100^{\circ}\text{C} \Rightarrow 5000\text{ppm}$

$100^{\circ}\text{C} < t < 180^{\circ}\text{C} \Rightarrow 5000 \text{ bis } 7500\text{ppm}$

$180^{\circ}\text{C} > t < 220^{\circ}\text{C} \Rightarrow 7500 \text{ bis } 10000\text{ppm}$

A test kit is available.

Handling precautions

Wear suitable protective gloves and safety goggles. In case of contact immediately flush with plenty of water. Then flush the area with water. After eye contact seek medical advice. In case of spillage absorb with sand or other

absorbent materials and sweep up. Then flush the area with water.

Before use review the Material Safety Data Sheet for additional information.

Important Information

Every chemical product will be delivered with a Material Safety Data Sheet. Material Safety Data Sheets contain health and safety information relevant for your development of appropriate product handling procedures to protect your employees and customers. Our Material Safety Data Sheets should be read and understood by all of your supervisory personal and employees before using our products in your facilities.

Shelf life

2 years in originally sealed containers.


3 months in opened containers.

Storage conditions: cool (5°C – 20°C), frost-free, dark and dry.

Packaging

CI 1300 CL is packed in 10kg drums, 30kg drums and 200kg drums.

All statements, information and data presented herein are believed to be accurate and reliable but are not to be taken as a guarantee, express warranty or implied warranty of merchantability of fitness for a particular purpose, or representation, express or implied, for which seller assumes legal responsibility, and they are offered solely for your consideration, investigation and verification. Statements or suggestions concerning possible use of this product are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent.

		
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Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS_DE

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

1.1 Product identifier

Trade name : ci 1300 cl

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

Use of the Substance/Mixture : Corrosion inhibitor.

<p>1.3 Details of the supplier of the safety data sheet gwk Gesellschaft Wärme Kältetechnik mbH Scherl 10 D-58540 Meinerzhagen Germany info@gwk.com</p>	<p>1.4 Emergency telephone number Giftnotruf Berlin +49 (0) 30 30686700</p> <p>Product Information Kontaktieren Sie Ihren lokalen gwk Ansprechpartner</p>
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Corrosive to metals, Category 1

H290: May be corrosive to metals.

Skin corrosion, Category 1A

H314: Causes severe skin burns and eye damage.

Serious eye damage, Category 1

H318: Causes serious eye damage.

Skin sensitisation, Category 1

H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

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Hazard pictograms :



Signal word :

Danger

Hazard statements :

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

Precautionary statements :

Prevention:
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 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/doctor.

Hazardous components which must be listed on the label:

Potassium hydroxide
Reaction Mass Of: Tetrasodium Phosphonoethane-1,2-Dicarboxylate; And Hexasodium Phosphonobutane-1,2,3,4-Tetracarboxylate
Sodium benzothiazol-2-yl sulphide

2.3 Other hazards

Additional advice

No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

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Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Potassium hydroxide	1310-58-3 215-181-3	Acute Tox.4; H302 Skin Corr.1A; H314 Met. Corr.1; H290	>= 5 - < 10
Reaction Mass Of: Tetrasodium Phosphonoethane-1,2- Dicarboxylate; And Hexasodium Phosphonobutane- 1,2,3,4-Tetracarboxylate	143239-08-1 410-800-5 01-0000015829-57-xxxx	Skin Sens.1B; H317 Aquatic Chronic2; H411	>= 5 - < 10
4(or 5)-Methyl-1H- benzotriazole, potassium salt	64665-53-8 265-002-8	Acute Tox.4; H302 Eye Irrit.2; H319 STOT SE3; H335	>= 3 - < 5
Hexanoic acid, 6,6',6''- (1,3,5-triazine-2,4,6- triyliimino)tris-, tripotassium salt	135043-69-5	Skin Irrit.2; H315 Eye Irrit.2; H319	>= 3 - < 5
2-Propenoic acid polymer with 2-methyl-2-[(1-oxo-2- propenyl)amino]-1- propanesulfonic acid monosodium salt and sodium phosphonate	110224-99-2	Eye Irrit.2; H319 Aquatic Chronic3; H412	>= 1 - < 2,5
Sodium benzothiazol-2-yl sulphide	2492-26-4 219-660-8	Met. Corr.1; H290 Skin Corr.1C; H314 Eye Dam.1; H318 Skin Sens.1; H317 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0,1 - < 0,25

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Move to fresh air.
If breathed in, move person into fresh air.
Keep patient warm and at rest.
If unconscious place in recovery position and seek medical

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- advice.
If symptoms persist, call a physician.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
If on skin, rinse well with water.
Wash contaminated clothing before re-use.
- In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
- If swallowed : Get medical attention immediately.
Do NOT induce vomiting.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:
stomach or intestinal upset (nausea, vomiting, diarrhea)
irritation (nose, throat, airways)
Cough
lung edema (fluid buildup in the lung tissue)
- Risks : May cause an allergic skin reaction.
Causes serious eye damage.
Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No hazards which require special first aid measures.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam
Carbon dioxide (CO₂)

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Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : potassium oxide
carbon dioxide and carbon monoxide
Oxides of phosphorus
Carbon oxides
Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : 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 : Use personal protective equipment.
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
Comply with all applicable federal, state, and local regulations.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
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 : Keep in suitable, closed containers for disposal.

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6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Do not breathe vapours/dust.
Do not smoke.
When diluting, always add the product to water. Never add water to the product.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Container hazardous when empty.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Hygiene measures : Wash hands before breaks and at the end of workday. When using do not eat or drink. Ensure that eyewash stations and safety showers are close to the workstation location. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
- Storage class (TRGS 510) : 8B, Non-combustible, corrosive hazardous materials
- Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

- Specific use(s) : No data available

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

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

Potassium hydroxide : End Use: Workers
 Exposure routes: Inhalation
 Potential health effects: Local, long-term
 Value: 1 mg/m³respiratory tract irritation
 End Use: General population
 Exposure routes: Inhalation
 Potential health effects: Local, long-term
 Value: 1 mg/m³respiratory tract irritation

8.2 Exposure controls

Engineering measures

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Eye protection : Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.
 Maintain eye wash station in immediate work area.

Hand protection

Remarks : butyl-rubber Nitrile rubber

The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection

: Wear as appropriate:
 Impervious clothing
 Chemical resistant apron
 Safety shoes
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
 Discard gloves that show tears, pinholes, or signs of wear.

Respiratory protection

: Recommended Filter type:

Filter type : Particulates type (P)

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Colour	: brown
Odour	: No data available
Odour Threshold	: No data available
pH	: ca. 12,9
Melting point/freezing point	: No data available
Boiling point/boiling range	: 103 °C
Flash point	: Not applicable
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: ca. 1,175 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility	: completely soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Thermal decomposition	: No data available
Viscosity	

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Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

10.4 Conditions to avoid

Conditions to avoid : Stable under recommended storage conditions.

10.5 Incompatible materials

Materials to avoid : Acids
Alcohols
aluminum
Amines
Bases
chlorinated solvents
halogenated hydrocarbons
Metals
nitrites
Strong oxidizing agents
sulphites
Zinc

10.6 Hazardous decomposition products

Hazardous decomposition products : carbon dioxide and carbon monoxide
Carbon oxides
Nitrogen oxides (NO_x)
Oxides of phosphorus
potassium oxide
nitrogen oxides

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Components:

POTASSIUM HYDROXIDE:

Acute oral toxicity : LD 50 (Rat): 333 mg/kg

Acute dermal toxicity : LD 50 (Rabbit): 1.260 mg/kg

Components:

BUTENEDIOIC ACID (2Z)-, DISODIUM SALT, REACTION PRODUCTS WITH DISODIUM PHOSPHONATE:

Acute oral toxicity : LD 50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute dermal toxicity : LD 50 (Rabbit): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: Not classified as acutely toxic by dermal absorption under GHS.

Components:

1H-Benzotriazole, 4(or 5)-methyl-, potassium salt:

Acute oral toxicity : LD 50 (Rat): 675 mg/kg
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD (Rabbit): > 4.000 mg/kg
Remarks: Information given is based on data obtained from similar substances.

Components:

ACRYLIC POLYMER:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

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Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Components:

SODIUM MERCAPTOBENZOTHAZOLE:

Acute oral toxicity : LD 50 (Rat): 2.100 mg/kg

Acute inhalation toxicity : LC 50 (Rat): > 6,5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD 50 (Rabbit): > 7.940 mg/kg

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks: May cause skin irritation in susceptible persons., Causes severe skin burns and eye damage., The feeling of irritation or pain may be delayed.

Result: Repeated exposure may cause skin dryness or cracking.

Components:

POTASSIUM HYDROXIDE:

Result: Corrosive to skin

BUTENEDIOIC ACID (2Z)-, DISODIUM SALT, REACTION PRODUCTS WITH DISODIUM PHOSPHONATE:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Mildly irritating to skin

1H-Benzotriazole, 4(or 5)-methyl-, potassium salt:

Species: Rabbit
Result: Slightly irritating to skin
Remarks: Information given is based on data obtained from similar substances.

Hexanoic acid, 6,6',6''-(1,3,5-triazine-2,4,6-triyltriimino)tris-, tripotassium salt:

Result: Irritating to skin

ACRYLIC POLYMER:

Result: Not irritating to skin

SODIUM MERCAPTOBENZOTHAZOLE:

Species: Rabbit
Result: Corrosive after 1 to 4 hours of exposure

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Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks: May cause irreversible eye damage.

Components:

POTASSIUM HYDROXIDE:

Result: Corrosive to eyes

BUTENEDIOIC ACID (2Z)-, DISODIUM SALT, REACTION PRODUCTS WITH DISODIUM PHOSPHONATE:

Result: Mildly irritating to eyes

1H-Benzotriazole, 4(or 5)-methyl-, potassium salt:

Species: Rabbit

Result: Irritating to eyes

Remarks: Information given is based on data obtained from similar substances.

Hexanoic acid, 6,6',6''-(1,3,5-triazine-2,4,6-triyltriimino)tris-, tripotassium salt:

Result: Irritating to eyes

ACRYLIC POLYMER:

Result: Not irritating to eyes

SODIUM MERCAPTOBENZOTHIAZOLE:

Species: Rabbit

Result: Corrosive to eyes

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Product:

Remarks: May cause allergic skin reaction.

Components:

BUTENEDIOIC ACID (2Z)-, DISODIUM SALT, REACTION PRODUCTS WITH DISODIUM PHOSPHONATE:

Test Type: Maximisation Test

Species: Guinea pig

Assessment: The product is a skin sensitiser, sub-category 1B.

Method: OECD Test Guideline 406

1H-Benzotriazole, 4(or 5)-methyl-, potassium salt:

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

Remarks: Information given is based on data obtained from similar substances.

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SODIUM MERCAPTOBENZOTHAZOLE:

Test Type: Maximisation Test

Species: Guinea pig

Assessment: May cause sensitisation by skin contact.

Method: OECD Test Guideline 406

Remarks: Information given is based on data obtained from similar substances.

Germ cell mutagenicity

Not classified based on available information.

Components:

BUTENEDIOIC ACID (2Z)-, DISODIUM SALT, REACTION PRODUCTS WITH DISODIUM PHOSPHONATE:

Genotoxicity in vitro : Test Type: Ames test
 Test species: Salmonella typhimurium
 Metabolic activation: with and without metabolic activation
 Method: OECD Test Guideline 471
 Result: negative
 GLP: yes

Genotoxicity in vivo : Test Type: chromosome aberration assay
 Test species: Mouse
 Cell type: Bone marrow
 Method: OECD Test Guideline 474
 Result: negative
 GLP: yes

1H-Benzotriazole, 4(or 5)-methyl-, potassium salt:

Genotoxicity in vitro : Test Type: Ames test
 Metabolic activation: with metabolic activation
 Result: positive
 Remarks: Information given is based on data obtained from similar substances.

: Test Type: in vitro assay
 Test species: mammalian cells
 Metabolic activation: without metabolic activation
 Result: negative
 Remarks: Information given is based on data obtained from similar substances.

: Test Type: Chromosome aberration test in vitro
 Test species: mammalian cells
 Metabolic activation: with and without metabolic activation
 Result: negative
 Remarks: Information given is based on data obtained from similar substances.

: Test Type: Ames test

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Metabolic activation: without metabolic activation
 Result: negative
 Remarks: Information given is based on data obtained from similar substances.

SODIUM MERCAPTOBENZOTHAZOLE:

Genotoxicity in vitro : Test Type: Ames test
 Metabolic activation: with and without metabolic activation
 Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
 Test species: Mouse
 Result: negative
 Remarks: Information given is based on data obtained from similar substances.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

Components:

1H-Benzotriazole, 4(or 5)-methyl-, potassium salt:

Exposure routes: Inhalation Target Organs:
 Respiratory Tract Assessment: May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Aspiration hazard

Not classified based on available information.

Further information

Product:

Remarks: No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

Potassium hydroxide

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Toxicity to fish : LC 50 (Western mosquitofish (*Gambusia affinis*)): 80 mg/l
 Exposure time: 96 h
 Method: Static
 Remarks: Mortality

Reaction Mass Of: Tetrasodium Phosphonoethane-1,2-Dicarboxylate; And Hexasodium Phosphonobutane-1,2,3,4-Tetracarboxylate

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l
 Exposure time: 96 h
 Test Type: semi-static test
 Test substance: 40 % aqueous solution
 Method: OECD Test Guideline 203
 GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Water flea (*Daphnia magna*)): 1.402 mg/l
 Exposure time: 48 h
 Test Type: static test
 Test substance: 40 % aqueous solution
 Method: OECD Test Guideline 202
 GLP: yes

Toxicity to algae : EC50 (*Pseudokirchneriella subcapitata* (algae)): > 100 mg/l
 End point: Biomass
 Exposure time: 72 h
 Test Type: static test
 Test substance: 40 % aqueous solution
 Method: OECD Test Guideline 201
 GLP: yes

EC50 (*Pseudokirchneriella subcapitata* (microalgae)): 100 mg/l
 End point: Biomass
 Exposure time: 72 h
 Test Type: static test
 Test substance: 40 % aqueous solution
 Method: OECD Test Guideline 201
 GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC 50: 100 mg/l
 Exposure time: 21 d
 Species: Water flea (*Daphnia magna*)
 Test Type: semi-static test
 Test substance: 40 % aqueous solution
 Method: OECD Test Guideline 211
 GLP: yes

Sodium benzothiazol-2-yl sulphide

Toxicity to fish : LC 50 (*Oncorhynchus mykiss* (rainbow trout)): 0,73 mg/l
 Exposure time: 96 h
 Test Type: flow-through test

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Method: OECD Test Guideline 203

Remarks: Information given is based on data obtained from similar substances.

LC 50 (Bluegill (*Lepomis macrochirus*)): 3,8 mg/l

Exposure time: 96 h

Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (*Daphnia magna*)): 19 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : IC50 (*Pseudokirchneriella subcapitata* (green algae)): 0,3 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

ErC50 (*Pseudokirchneriella subcapitata* (green algae)): 0,5 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Information given is based on data obtained from similar substances.

NOEC (*Pseudokirchneriella subcapitata* (green algae)): 0,066 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Information given is based on data obtained from similar substances.

Toxicity to fish (Chronic toxicity) : NOEC: 0,041 mg/l
Exposure time: 89 d
End point: Growth rate
Species: *Oncorhynchus mykiss* (rainbow trout)
Test Type: flow-through test
Method: OECD Test Guideline 210
Remarks: Information given is based on data obtained from similar substances.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0,08 mg/l
Exposure time: 21 d
End point: Reproduction Test
Species: *Daphnia magna* (Water flea)
Method: OECD Test Guideline 211
Remarks: Information given is based on data obtained from similar substances.

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12.2 Persistence and degradability

Components:

Reaction Mass Of: Tetrasodium Phosphonoethane-1,2-Dicarboxylate; And Hexasodium Phosphonobutane-1,2,3,4-Tetracarboxylate

Biodegradability : Result: Not readily biodegradable.

Sodium benzothiazol-2-yl sulphide

Biodegradability : Result: Not readily biodegradable.

Remarks: Information given is based on data obtained from similar substances.

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: The bioaccumulation potential cannot be determined.

Components:

Sodium benzothiazol-2-yl sulphide

Bioaccumulation : Species: Cyprinus carpio (Carp)

Exposure time: 6 Weeks

Concentration: 0,01 mg/l

Bioconcentration factor (BCF): < 8

Remarks: Information given is based on data obtained from similar substances.

Partition coefficient: n-octanol/water : log Pow: 2,42
pH: 7

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

12.6 Other adverse effects

Product:

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.

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Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

ADR: UN1719

ADNR: UN1719

RID: UN1719

INTERNATIONAL MARITIME DANGEROUS GOODS: UN1719

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: UN1719

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: UN1719

14.2 UN proper shipping name

ADR: CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

ADNR: CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

RID: CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

INTERNATIONAL MARITIME DANGEROUS GOODS: CAUSTIC ALKALI LIQUID, N.O.S. (POTASSIUM HYDROXIDE)

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Caustic alkali liquid, n.o.s. (POTASSIUM HYDROXIDE)

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Caustic alkali liquid, n.o.s. (POTASSIUM HYDROXIDE)

14.3 Transport hazard class(es)

ADR: 8

ADNR: 8

RID: 8

INTERNATIONAL MARITIME DANGEROUS GOODS: 8

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: 8


INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: 8

14.4 Packing group

ADR: II

ADNR: II

RID: II

		
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INTERNATIONAL MARITIME DANGEROUS GOODS: II
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: II
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: II

14.5 Environmental hazards

ADR: Not applicable

ADNR: Not applicable

RID: Not applicable

INTERNATIONAL MARITIME DANGEROUS GOODS: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not applicable

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Ship Type: Not applicable Hazard

code(s): Not applicable Pollutant

Category: Not applicable

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 57) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

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

Water contaminating class : WGK 1 slightly water endangering

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(Germany)

Other regulations : Young people under 18 years old are not allowed to work with this product according to the EU Directive 94/33/EC on the protection of young people at work.

The components of this product are reported in the following inventories:

TSCA : Not On TSCA Inventory

DSL This product contains one or more components that are not on the Canadian DSL and have annual quantity limits.

AUSTR Not in compliance with the inventory

ENCS Not in compliance with the inventory

KECL Not in compliance with the inventory

PHIL Not in compliance with the inventory

IECSC Not in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

15.2 Chemical safety assessment

No data available

SECTION 16: Other information

Further information

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Full text of H-Statements referred to under section 3.

H290 May be corrosive to metals.
H302 Harmful if swallowed.
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.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.

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H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Further information

Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Sources of key data used to compile the Safety Data Sheet

Key literature references and sources of data

SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

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TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

ABM : Water Hazard Class for the Netherlands
ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.
ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine
CLP : Classification, Labelling and Packaging
CSA : Chemical Safety Assessment
CSR : Chemical Safety Report
DNEL : Derived No Effect Level.
EINECS : European Inventory of Existing Commercial Chemical Substances.
ELINCS : European List of Notified Chemical Substances
PEC : Predicted Effect Concentration
PEL : Permissible Exposure Limits
PNEC : Predicted No Effect Concentration
R-phrase : Risk phrase
REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
RID : Regulation Concerning the International Transport of Dangerous Goods by Rail
S-phrase: Safety phrase
WGK : German Water Hazard Class