

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 14.02.2017

Revision: 14.02.2017

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

#### · 1.1 Product identifier

##### · Trade name:

##### · CAS Number:

10222-01-2

##### · EC number:

233-539-7

##### · Registration number

The product is a biocide. Active substances for use in biocidal products are regarded as registered as biocidal active substances and biocidal products and are covered by Directive 98/8/EC (Biocidal Products Directive).

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

No further relevant information available.

#### · Application of the substance / the mixture Biocide

#### · 1.3 Details of the supplier of the safety data sheet

#### · Manufacturer/Supplier:

#### · Further information obtainable from: Product safety department.

#### · 1.4 Emergency telephone number:

### SECTION 2: Hazards identification

#### · 2.1 Classification of the substance or mixture

#### · Classification according to Regulation (EC) No 1272/2008



GHS06 skull and crossbones

Acute Tox. 3      H301 Toxic if swallowed.

Acute Tox. 2      H330 Fatal if inhaled.



GHS05 corrosion

Skin Corr. 1A      H314 Causes severe skin burns and eye damage.



GHS09 environment

Aquatic Acute 1      H400 Very toxic to aquatic life.



GHS07

Skin Sens. 1B      H317 May cause an allergic skin reaction.

STOT SE 3      H336 May cause drowsiness or dizziness.

Aquatic Chronic 3      H412 Harmful to aquatic life with long lasting effects.

#### · 2.2 Label elements

#### · Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

#### · Hazard pictograms GHS05, GHS06, GHS09

#### · Signal word Danger

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**Trade name:**

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- **Hazard statements**

H301 Toxic if swallowed.  
 H330 Fatal if inhaled.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H336 May cause drowsiness or dizziness.  
 H400 Very toxic to aquatic life.  
 H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

P260 Do not breathe dust.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P273 Avoid release to the environment.  
 P270 Do not eat, drink or smoke when using this product.  
 P301+P310 IF SWALLOWED: Immediately call a doctor.  
 P304+P312 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**

- **CAS No. Description**

10222-01-2 2,2-dibromo-2-cyanoacetamide

- **Identification number(s)**

· **EC number:** 233-539-7

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.  
 Remove breathing equipment only after contaminated clothing have been completely removed.  
 In case of irregular breathing or respiratory arrest provide artificial respiration.

- **After inhalation:**

DO NOT DELAY!  
 Supply fresh air or oxygen; call for doctor.  
 In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:**

DO NOT DELAY!  
 Immediately wash with water and soap and rinse thoroughly.  
 If skin irritation continues, consult a doctor.

- **After eye contact:**

DO NOT DELAY!  
 Check for and remove any contact lenses.  
 Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing:**

DO NOT DELAY!  
 Rinse out mouth and then drink plenty of water.  
 Do not induce vomiting; call for medical help immediately.

- **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **Information for doctor:**

In case of ingestion DO NOT induce vomiting. No specific antidote. Treat symptomatically and supportively.

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- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
Do not inhale explosion gases or combustion gases.  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information** Sparingly soluble in water.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Avoid formation of dust.  
Ensure adequate ventilation  
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**  
Do not allow to enter sewers/ surface or ground water.  
Do not allow to penetrate the ground/soil.
- **6.3 Methods and material for containment and cleaning up:**  
Ensure adequate ventilation.  
Pick up mechanically.  
Send for recovery or disposal in suitable receptacles.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of dust.  
Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.  
Safety showers and eye wash facilities should be available at the work area.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Prevent any seepage into the ground.  
Do not store in aluminium or galvanised containers.
- **Information about storage in one common storage facility:**  
Store away from foodstuffs.  
Store away from oxidising agents.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in a banded area.

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Store in cool, dry conditions in well sealed receptacles.

· **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.· **8.1 Control parameters**· **Ingredients with limit values that require monitoring at the workplace:** Not required.· **Additional information:** The lists valid during the making were used as basis.· **8.2 Exposure controls**· **Personal protective equipment:**

Select PPE appropriate for the operations taking place taking into account the product properties.

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Do not breath dust

Do not eat, drink, smoke or sniff while working.

A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.

Depending on the degree of exposure, periodic medical examination is suggested.

Ensure that eyewash stations and safety showers are close to the workstation location.

Pregnant women should strictly avoid inhalation or skin contact.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Tightly sealed goggles

· **Body protection:**

Impervious protective clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

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### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

Form: Crystalline

Colour: White

· Odour: Characteristic

· Odour threshold: Not determined.

· pH-value (10 g/l) at 20 °C: 5 - 7

##### · Change in condition

Melting point/freezing point: 124 °C

Initial boiling point and boiling range: decomp @ 190 °C

· Flash point: Not applicable.

· Flammability (solid, gas): Product is not flammable.

##### · Ignition temperature:

Decomposition temperature: Not determined.

· Auto-ignition temperature: Not determined.

· Explosive properties: Product does not present an explosion hazard.

##### · Explosion limits:

Lower: Not determined.

Upper: Not determined.

· Vapour pressure: Not applicable.

· Density at 20 °C: 1.5 g/cm<sup>3</sup>

· Relative density: Not determined.

· Vapour density: Not applicable.

· Evaporation rate: Not applicable.

##### · Solubility in / Miscibility with

water at 25 °C: 17 g/l

· Partition coefficient: n-octanol/water: -6.3 log POW

##### · Viscosity:

Dynamic: Not applicable.

Kinematic: Not applicable.

· 9.2 Other information: No further relevant information available.

### SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

##### · 10.2 Chemical stability

##### · Thermal decomposition / conditions to be avoided:

To avoid thermal decomposition do not overheat.

No decomposition if used and stored according to specifications.

· 10.3 Possibility of hazardous reactions: No dangerous reactions known.

· 10.4 Conditions to avoid: No further relevant information available.

##### · 10.5 Incompatible materials:

Strong oxidising agents.

Strong acids.

Strong bases.

Reducing agents.

Finely powdered metals.

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· **10.6 Hazardous decomposition products:** Br<sub>2</sub>, HBr, CNBr, NO<sub>x</sub>, C<sub>2</sub>H<sub>5</sub>Br, CH<sub>3</sub>Br

### SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**· **Acute toxicity**

Toxic if swallowed.

Fatal if inhaled.

· **LD/LC50 values relevant for classification:**

Oral	LD50	308 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)

· **Primary irritant effect:**· **Skin corrosion/irritation**

Causes severe skin burns and eye damage.

· **Serious eye damage/irritation**

Causes severe skin burns and eye damage.

· **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.· **Carcinogenicity** Based on available data, the classification criteria are not met.· **Reproductive toxicity** Based on available data, the classification criteria are not met.· **STOT-single exposure**

May cause drowsiness or dizziness.

· **STOT-repeated exposure** Based on available data, the classification criteria are not met.· **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

· **12.1 Toxicity**· **Aquatic toxicity:**

EC50	0.86 mg/kg (daphnia)
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· **12.2 Persistence and degradability** No further relevant information available.· **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.· **12.4 Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Very toxic for fish· **Additional ecological information:**· **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

· **12.5 Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**· **Recommendation**

Recommended Hierarchy of Controls:

- Minimise waste;

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- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).

Contact waste processors for recycling information.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· **European waste catalogue**

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

· **Uncleaned packaging:**

· **Recommendation:**

Container remains hazardous when empty. Continue to observe all precautions.

Containers, even those that are "empty," may contain residues that can develop hazardous gases and vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

Disposal must be made according to official regulations.

### SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN2923

· **14.2 UN proper shipping name**

· **ADR**

2923 CORROSIVE SOLID, TOXIC, N.O.S. (2,2-Dibromo-3-Nitrilo-Propionamide), ENVIRONMENTALLY HAZARDOUS

· **IMDG, IATA**

CORROSIVE SOLID, TOXIC, N.O.S. (2,2-Dibromo-3-Nitrilo-Propionamide)

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**

6.1 Toxic substances.

· **Label**

6.1

· **IMDG, IATA**



· **Class**

6.1 Toxic substances.

· **Label**

6.1

· **14.4 Packing group**

· **ADR, IMDG, IATA**

III

· **14.5 Environmental hazards:**

Environmentally hazardous substance, solid

· **Marine pollutant:**

No

· **Special marking (ADR):**

Symbol (fish and tree)

· **14.6 Special precautions for user**

Warning: Toxic substances.

· **EMS Number:**

F-A,S-B

· **Stowage Category**

B

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· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	5 kg
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5 kg
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>UN "Model Regulation":</b>	UN 2923 CORROSIVE SOLID, TOXIC, N.O.S. (2,2-DIBROMO-3-NITRIL- PROPIONAMIDE), 6.1, III, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

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

· **National regulations:**

Class	Share in %
I	100.0

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 3: Acute toxicity – Category 3

Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Sens. 1B: Skin sensitisation – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3