

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****1.1 Identification of the substance/preparation:**

Product/Trade Name : Defender  
Synonyms : N/A

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

For use only as an effervescent disinfection tablet for surface disinfection & cleaning.

**Application of the substance/mixture:** Disinfectant

**1.3 Details of the supplier of the safety data sheet:**

**Manufacturer/Supplier Information:** Trust Medical, 21370 Heywood Avenue, Lakeville, Minnesota, 55044, USA  
Tel: +1 888 200 0917  
Fax: +1 952 469 1823  
e-mail: customerservice@trustmedicalcompany.com

**1.4 Emergency telephone number:**

For Emergency Medical Treatment Information 1-800-222-1222 may be contacted (National Poison Centre).

**2. HAZARDS IDENTIFICATION****2.1 Classification of the mixture according to the Globally Harmonized System of Classification and Labelling of Chemicals, Third Revised Edition, 2009 (GHS)**

Acute Tox.	H302 Harmful if swallowed.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Dam. 1	H318 Causes serious eye damage.
STOT SE 3	H335 May cause respiratory irritation.
Aquatic Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 1	H410 Very toxic to aquatic life with long lasting effects.

**2.2 Label elements:**

**Labelling in accordance with Globally Harmonized System of Classification and Labelling of Chemicals, Third Revised Edition, 2009 (GHS):**

**Hazard pictograms:**



GHS05    GHS07    GHS09

**Signal Word:** DANGER

**Hazard-determining components of labelling:** Sodium salt of dichloroisocyanuric acid

**Health Hazard Statements:**

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H335 May cause respiratory irritation.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements:**

P260	Do not breathe dust.
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.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

**Additional information:**

EUH031 Contact with acids liberates toxic gas.  
A full list of applicable P phrases given in section 16.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Chemical characterization: Mixtures:

**Description:** Mixture of the substances listed below with harmless additions.

Name	CAS number	Percentage%	Classification
sodium salt of dichloroisocyanuric acid	2893-78-9	45 - 62.5	Ox. Sol. Cat 2, H272 Acute Tox. 4, H302; Eye Irrit Cat 2, H319; STOT SE 3, H335 Aquatic Acute 1, H400; Aquatic Chronic 1, H410
adipic acid	124-04-9	10-<25	Eye Irrit Cat 2, H319
SODIUM DODECYLBENZENE SULPHONATE		10-<25	Eye Dam. 1, H318; Skin Irrit. 2, H315; Aquatic Chronic 3, H412
sodium carbonate	497-19-8	2.5 -<5	Eye Irrit. 2, H319

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures:

**General information:**

Instantly remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident.

**Skin contact:**

Short Term Exposure: Direct contact with wet material or moist skin may cause severe irritation, pain, and possibly burns. Dry material is less irritating than wet material. This material is not a skin sensitizer.

First Aid: Wash with water and soap. If skin irritation continues, consult a doctor.

**Ingestion:**

Not a likely route of exposure. Harmful if swallowed. Ingestion may cause immediate pain and severe burns of the mucous membranes. There may be discoloration of the tissues. Swallowing and speech may be difficult at first and then almost impossible. The effect on the esophagus and gastrointestinal tract may range from irritation to severe corrosion. Edema of the epiglottis and shock may occur.

First Aid: Call a poison center or doctor immediately. Rinse out mouth and then drink plenty of water (approx. 500 ml) if able to do so. Do NOT induce vomiting unless instructed by the poison center or doctor to do so. Do not give anything by mouth to an unconscious person.

**Eye contact:**

Short Term Exposure: This material is irritating to the eye. Direct contact may cause severe irritation, pain and burns, possibly severe, and permanent damage including blindness. The degree of injury depends on the concentration and duration of contact.

First Aid: Rinse cautiously with water for 15 - 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center or doctor.

**Inhalation:**

Short Term Exposure: This material contained in this tablet in solid form is not expected to produce respiratory effects. Particles of respirable size are generally not encountered. The respirable fraction for the tablet active ingredient is typically less than 0.1% by weight for the granular and extra granular grades. If it is ground or otherwise in a powdered form, effects similar to a corrosive substance may occur. May cause severe irritation of the respiratory tract with coughing, choking, pain and possibly burns of the mucous membranes. If significant or prolonged exposure occurs, pulmonary edema may develop, either immediately or more often within a period of 5-72 hours. The symptoms may include tightness in the chest, dyspnea, frothy sputum, cyanosis, and dizziness. Physical findings may include moist rales, low blood pressure and high pulse pressure. Severe cases may be fatal.

First Aid: Take affected persons into the open air and position comfortably. Supply fresh air and call for doctor for safety reasons. In case of unconsciousness bring patient into stable side position for transport.

**Indication of any immediate medical attention and special treatment needed**

Probable mucosal damage may contraindicate to the use of gastric lavage.

**5. FIRE-FIGHTING MEASURES****5.1 Extinguishing media:****Suitable extinguishing agents**

Use fire-fighting measures that suit the environment.

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with foam. Do not use dry chemicals, carbon dioxide or halogenated extinguishers since there is potential for a violent reaction.

**5.2 Special hazards arising from the substance or mixture:**

Thermal decomposition or combustion products: chlorine, nitrogen, nitrogen trichloride, cyanogen chloride, oxides of carbon, phosgene

**5.3 Advice for firefighters:****Protective equipment:**

Fire-fighters should wear full protective clothing and a self-contained breathing apparatus. Using a 10% solution of sodium carbonate, thoroughly decontaminate fire-fighting equipment including all fire-fighting wearing apparel after the incident.

**6. ACCIDENTAL RELEASE MEASURES****6.1 Personal precautions, protective equipment and emergency procedures:**

Wear protective clothing. Avoid causing dust. Ensure adequate ventilation. Avoid contact with skin and eyes. Wear chemical safety goggles and chemical resistant gloves.

Handle product in a well-ventilated area.

**6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.**6.3 Methods and material for containment and cleaning up:**

Contain spilled material. Any spillage should be cleaned up as soon as possible. Do not add water to spilled material. Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean, dry containers for disposal. Do not close drums containing wet or damp material. Do not transport wet or damp material.

**6.4 Reference to other sections:**

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

**7. HANDLING AND STORAGE****7.1 Precautions for safe handling:**

Wear protective gloves/protective clothing/eye protection/face protection. Wash hands after handling. Use only in well ventilated areas. Provide suction extractors if dust is formed. Avoid breathing airborne particulates; wear respiratory protection when exposure is possible. Wash contaminated clothing before re-use.

**7.2 Conditions for safe storage, including any incompatibilities:****Storage**

**Requirements to be met by storerooms and containers:** Store only in the original container.

**Information about storage in one common storage facility:** Do not store together with acids.

**Further information about storage conditions:**

Store in a cool, dry, well-ventilated area at temperatures below 40°C/104°F. Avoid moisture getting into container. Keep container tightly sealed. Protect from heat and direct sunlight.

**7.3 Handling Instructions for specific uses:**

Mix only with water. Use clean dry utensils. Do not mix this product with remnants of any other products. Such uses may cause a violent reaction leading to fire or explosion.

Contamination with moisture, organic matter or other chemicals may start a chemical reaction with generation of heat, liberation of hazardous gases, and possible generation of fire and explosion.

Vapor space in a closed container may contain a slight amount of chlorine gas and other chlorine containing compounds from decomposition of the product. Exposure to chlorine gas may cause burning of the eyes, burning of the nose and mouth and irritation of the linings of the respiratory tract with coughing, a choking sensation, substernal pain, vomiting, nausea, headache, dizziness and fainting.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

The information below relates to Sodium Dichloroisocyanurate in its pure form.

This preparation contains 1,3,5 - Triazine - 2,4,6 (1H, 3H, 5H) - trione, 1, 3 - dichloro-, sodium salt (sodium dichloroisocyanuric acid).

**Weight of Sodium Dichloroisocyanurate acid in this preparation product (% w/w): 50-70%**

**Exposure Limits:**

Components	CAS number	ACGIH-TLV Data	OSHA (PEL) Data
Dichloroisocyanuric Acid, Sodium Salt of	2893-78-9	Not determined	Not determined
Adipic Acid	124-04-09	5mg/m <sup>3</sup>	Not determined
Sodium Carbonate	497-19-8	Not determined	Not determined

**Additional Advice:**

Chlorine and chlorine compounds may be found in slight amounts in the head space of containers of Products.

**Risk Management Measures (RMM):**

**RMM: Health**

- The use of a half-face respirator with chlorine cartridges (EN140) is required during opening of drums and filling of containers.
- An IOEL of 1.5 mg/m<sup>3</sup> chlorine is applicable.
- The substance is corrosive so risk mitigation measures (wearing PPE consisting of gloves (nitrile), coverall and safety glasses) while handling the raw material and where exposure may be possible, would apply.
- Local exhaust ventilation should be used where opening of drums and filling of containers occurs.

**RMM: Environment**

- Engineering controls should be used to eliminate emissions of dust and chlorinated fumes as appropriate.
- All gas emissions should be filtered for dust and treated with sodium hydroxide to remove chlorine and other volatile chlorinated species.
- Dry solid residues from air filtration systems are collected and either recycled or disposed of.
- The waste dust from formulation or tableting is sent to an external waste treatment site for disposal.

**8.2 Exposure controls:**

**Personal protective equipment:**

**General protective and hygienic measures:**

The usual precautionary measures should be adhered to in handling the chemicals. Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

**Eye Protection:**

Wear chemical safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:**

Wear protective clothing to minimize skin contact. When potential for contact with dry material exists, wear disposable coveralls suitable for dust exposure, such as Tyvek®. Contaminated clothing should be removed and laundered before reuse.

**Hand Protection:**

Wear appropriate chemical resistant gloves.

**Protective Material Types:**

Butyl rubber, Natural rubber, Neoprene, Nitrile, Polyvinyl chloride (PVC), Tyvek®

**Respiratory Protection:**

An approved respirator with EN140 (chlorine) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits, or when symptoms have been observed that are indicative of overexposure. The added protection of a full face piece respirator is required when visible dusty conditions are encountered and eye irritation may occur. A respiratory protection program that meets applicable regulatory requirements must be followed whenever workplace conditions warrant use of a respirator.

**9. Physical and Chemical Properties**

**9.1 Information on basic physical and chemical properties:**

**General Information**

Appearance:

Form	Solid
Color	According to product specification
Smell	Characteristic
Odor threshold	Not determined
pH-value at 20 °C:	ca. 5.5

Change in condition:

Melting point/Melting range	Not determined
Boiling point/Boiling range	Not applicable

Flash point:

Inflammability (solid, gaseous)	Not applicable
Ignition temperature	Not applicable

Decomposition temperature

225-250 °C

Danger of explosion:

Critical values for explosion      Product is not explosive.

Lower

Not determine

Oxidizing properties

Not determined

Steam pressure density

Not applicable

Settled apparent density:

Not determined

Evaporation rate:

Not determined

Solubility in / Miscibility with Water:

Soluble

Partition coefficient (n-octanol/water):

Not determined

Viscosity

dynamic:

Not applicable

kinematic:

Not applicable

**9.2 Other information:**

No further relevant information available.

**10. STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions when stored and handled according to instructions.

**10.2 Chemical stability:**

**Thermal decomposition / conditions to be avoided:**

Thermal decomposition starts at 225 °C. Chlorine, Nitrogen trichloride, Cyanogen chloride, Oxides of carbon, Phosgene can be decomposition products.

**10.3 Possibility of hazardous reactions:**

Contact with acids releases toxic gases.

Reacts with flammable substances.

**10.4 Conditions to avoid:**

No further relevant information available.

**10.5 Incompatible materials:**

Strong acids and/or alkaline. Reducing agents. Combustible material. The active ingredient in this preparation is a strong oxidizing agent. The preparation of concentrated solutions or slurries is not recommended. Avoid contact with water on concentrated material in the container. Also avoid contact with easily oxidizable organic material: ammonia, urea or similar nitrogen containing compounds; inorganic reducing compounds; floor sweeping compounds; calcium hypochlorite and alkalis.

Do not get water inside packaging.

**10.6 Hazardous decomposition products:**

Chlorine, Nitrogen trichloride, Cyanogen chloride, Oxides of carbon, Phosgene.

**11. TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects:**

**Acute toxicity** Based on available data, the classification criteria are not met.

**LD/LC50 values which are relevant for classification:**

**2893-78-9 sodium salt of dichloroisocyanuric acid**

**Oral LD50 1671 mg/kg (rat)**

**Dermal LD50 > 5000 mg/kg (rat)**

**Primary irritant effect:**

- **Skin corrosion/irritation:** Causes skin irritation.
  - **Serious eye damage/irritation:** Causes serious eye damage.
  - **Respiratory or skin sensitization** Based on available data, the classification criteria are not met.
  - **Additional toxicological information:**
    - May cause respiratory irritation.
    - Causes serious eye damage.
  - **Sensitization:** No sensitizing effect known.
  - **Repeated dose toxicity:** No further relevant information available.
  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
    - Not mutagenic
    - Not teratogenic
    - Not toxic 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 respiratory irritation.
  - **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.

**12. ECOLOGICAL INFORMATION****12.1 Toxicity:**

**Aquatic toxicity**

**2893-78-9 sodium salt of dichloroisocyanuric acid**

LC50 (96 h) 0.13 mg/L (rainbow trout)

LC50 (48 h) 0.25 mg/L (daphnia magna)

**12.2 Persistence and degradability:** No further relevant information available.

**Other information:** Easy elimination possible by flocculation or adsorption by sludge.

**12.3 Bio accumulative potential:** No further relevant information available.

**12.4 Mobility in soil:** No further relevant information available.

**Ecotoxicological effects:**

**Other information:**

Very toxic for aquatic organisms.

Do not allow product to reach ground water, water bodies or sewage system. Danger to drinking water if even small quantities leak into soil.

The substances contained in this preparation are not identified as PBT substance.

**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods:**

**Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system in concentrated form. Must be specially treated in adherence to official regulations.

**Uncleaned packaging:**

**Recommendation:**

Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Dispose of packaging according to regulations on the disposal of packaging.

**14. TRANSPORT INFORMATION****DOT Regulations:**

Environmentally hazardous substances, solid, n.o.s, (UN3077) may be transported within USA not subject to DOT requirements of 49CFR172 - reference 49 CFR 172.101 (table) and 172.102 (special provision 335).

**ADR/IMDG/IATA:**

Can be shipped as a limited quantity when packed in inner or single packs  $\leq 5$  kg.

**ADR/IATA:**

When packed in inner or single packs  $\leq 5$  kg, Special Provision 375 of 2015 UN Model Regulations for the transportation of dangerous goods (IATA Special Provision A197) exempts this product from the labelling and documentation provisions of Dangerous Goods Regulations.

**IMDG:** IMDG 2014 (2.10.2.7)

Marine pollutants packaged in single or combination packaging containing a net quantity per single or inner packaging having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provisions of this Code relevant to marine pollutants provided the packaging meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**ADR/RID** UN No. 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Dichloroisocyanuric acid, salts)  
Class: 9 - Miscellaneous Dangerous Substances and Articles.  
Classification Code: M7  
Hazard identification No. 90  
Packing group: III  
Marking: Environmentally hazardous substance.

**IMO** UN No. 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Dichloroisocyanuric acid, salts)  
Class: 9 - Miscellaneous Dangerous Substances and articles.  
Label: 9  
Mark: MARINE POLLUTANT  
Packing Group: III

**ICAO/IATA** UN No. 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s (Dichloroisocyanuric acid, salts)  
Class: 9  
Hazard label(s): Miscellaneous  
Packing group: III  
Marking: Environmentally hazardous substance.

**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labelling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

**PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS****DANGER**

**Corrosive. Causes irreversible eye damage. Harmful if swallowed, inhaled, or absorbed through skin.**

Do not get in eyes, on skin, or clothing. Avoid breathing dust. Wear chemical-resistant gloves and safety glasses or face shield when making up solution. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. [See additional precautionary and first aid statements inside the label]

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labelling. Read the entire label and use strictly in accordance with precautionary statements and directions.

**15. REGULATORY INFORMATION (continued)****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: (continued)**

USA: All the ingredients in this preparation are listed in the EPA TSCA Inventory.

This product is registered under FIFRA.

CERCLA/SARA – 302 ext. haz. substances – This material contains hazardous substance (Adipic Acid) as defined by CERCLA/SARA and the Reportable Quantity is 5000lbs.

SARA (311,312) – This product is categorized as an immediate health hazard, and fire and reactivity physical hazard (Sodium Dichloroisocyanurate)

Massachusetts Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)

New Jersey Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)

Pennsylvania Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)

Rhode Island Right-to-Know Hazardous Substances list – Listed (Adipic Acid, Sodium Dichloroisocyanurate)

Workplace Classification: This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200)

Canada: Canadian Chemical Inventory (DSL) – Listed

WHMIS hazard class:

D2B toxic materials

For Sodium dichloroisocyanurate:

C oxidizing materials

D1B toxic materials

For Sodium Carbonate:

E corrosive materials

The active substance is also listed in the following chemical inventories:

- Australian Chemical Inventory (AICS) – Listed
- China Chemical Inventory (IECSC) – Listed
- European Union Inventory (EINECS) – Reported
- Japan Chemical Inventory (ENCS) – Listed
- Korean Chemical Inventory (KECI) – Listed
- New Zealand Chemical Inventory (NZIOC) – Listed
- Philippines Priority Chemical List (PICCS) – Listed

The mixture is generally classified and registered as a disinfectant, biocide, or pesticide.

EU Regulation: If required for sale in Ireland (country of origin), the mixture is notified to the Pesticide Control Service, Department of Agriculture, Food and the Marine as a biocide under its appropriate trade name.

The product is generally classified as a biocide in the EU, and as such is subject to regulation under EU Regulation No. 528/2012 (Biocidal Products Regulation).

**15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.****16. OTHER INFORMATION**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Full list of P phrases:**

P260 Do not breathe dust.

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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.

P363 Wash contaminated clothing before reuse.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see insert label).



**16. OTHER INFORMATION (continued)**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Full list of P phrases: (continued)**

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P270 Do not eat, drink or smoke when using this product

P301

P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

H335: May cause respiratory irritation.

P261 Avoid breathing dust/fume/ gas/mist/vapors/spray.

P271 Use only outdoors or in a well-ventilated area.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/ doctor if you feel unwell.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Abbreviations and acronyms:**

DR: 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 Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio accumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bio accumulative

Ox. Sol. 2: Oxidizing Solids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

**Sources:** source ECHA: European Chemicals Agency, <http://echa.europa.eu/>

\* **Data compared to the previous version altered.**

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