

Safety Data Sheet

According to U.S.A. Federal Hazcom 2012 and Canadian HPR - WHMIS 2015

1. Identification

1.1. Product identifier

Code **CL-1**
 Product name **Chloride Reagent 1**

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

Intended use **Determination of Chloride in Water Samples.**

1.3. Details of the supplier of the safety data sheet

Name **Milwaukee Electronics Kft.**
 Full address **Alsóikötő sor 11.**
 District and Country **H6726 Szeged Hungary**
 Tel. **+36-62-428-050**
 Fax **+36-62-428-051**

e-mail address of the competent person responsible for the Safety Data Sheet **info@milwaukeeinst.com**

Product distribution by: **Milwaukee Instruments, Inc.- 2950 Business Park Drive - Rocky Mount - NC 27804 - U.S.A. - Technical Service Contact Information: +1 252 443 3630, fax number 252.443.1937 - e-mail: sales@milwaukeeinstruments.com**

1.4. Emergency telephone number

For urgent inquiries refer to **USA Emergency Contact Information: +1-800-424-9300 - CHEMTREC 24 hours/365 days**

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Acute toxicity, category 3	Toxic if swallowed.
Acute toxicity, category 3	Toxic in contact with skin.
Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.

Hazard pictograms:



Signal words: **Danger**

Hazard statements:

H301+H311 Toxic if swallowed or in contact with skin.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

Prevention: **P280** Wear protective gloves / protective clothing / eye protection / face protection.

Response: **P302+P352** IF ON SKIN: Wash with plenty of water and soap.

2. Hazards identification ... / >>

P312 Call a POISON CENTRE or doctor, if you feel unwell.
P391 Collect spillage.

Storage: --

Disposal: --

2.2. Other hazards

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement

Hazardous to the aquatic environment, chronic toxicity, category 1

Very toxic to aquatic life with long lasting effects.

Hazard pictograms:



Signal words: Warning

Hazard statements:

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention: --

Response: --

Storage: --

Disposal: --

Additional hazards

Contact with acids liberates very toxic gas.

3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification:
ETHANEDIOL		
CAS	107-21-1 98 ≤ x < 100	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373
EC	203-473-3	
INDEX	603-027-00-1	
MERCURY (II) THIOCYANATE		
CAS	592-85-8 0.25 ≤ x < 0.55	Acute toxicity, category 1 H300, Acute toxicity, category 1 H310, Acute toxicity, category 2 H330, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410 M=100
EC	209-773-0	
INDEX	080-002-00-6	

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

ETHANEDIOL

Unconsciousness, agitation, Nausea, Vomiting, Tiredness, ataxia (impaired locomotor coordination), CNS disorders.

MERCURY (II) THIOCYANATE

Mercury compounds have a cytotoxic and protoplasmatoxic effect. Intoxication symptoms: acute: contact with eye causes severe lesions.

Swallowing and inhalation of dusts damages mucous membranes of gastrointestinal and respiratory tract (metallic taste, nausea, vomiting, abdominal pain, bloody diarrhoea, intestinal burns, glottal oedema, aspiration pneumonia); drop in blood pressure, cardiac dysrhythmia, circulatory collapse, and renal failure; chronic: inflammation of the mouth with loss of teeth and mercurial line. The principal signs manifest themselves in the CNS (impaired speech, vision, hearing, and sensitivity, loss of memory, irritability, hallucinations, delirium inter alia).

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

ETHANEDIOL

Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

MERCURY (II) THIOCYANATE

Combustible. Risk of dust explosion. Fire may cause evolution of: Sulphur oxides, nitrogen oxides, mercury vapours, Hydrogen cyanide (hydrocyanic acid). Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2019

ETHANEDIOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	52	20	104	40	SKIN
TLV-ACGIH	-			100 (C)		
CAL/OSHA	USA	100	40			
NIOSH	USA				50 (C)	

8. Exposure controls/personal protection ... / >>

MERCURY (II) THIOCYANATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m ³	ppm	mg/m ³	ppm
OEL	EU	0.02			
TLV-ACGIH	-	0.025			

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

MERCURY (II) THIOCYANATE

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norm ISO 17733 - Biological Values, ACGIH: 20 µg mercury/g creatinine in urine, GBR: 20 µmol mercury/mol creatinine in urine (Random), DEU: 25 µg Quecksilber/g Kreatinin Urin (keine Beschränkung) , ESP: 30 µg Mercurio inorgánico total/g creatinina en orina (Antes de la jornada laboral), ROU: 35 µg mercur/g creatină in urină (începutul schimbului următor).

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	colourless	
Odour	odourless	
Odour threshold	Not available	
pH	3.5	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Boiling range	Not available	
Flash point	Not applicable	
Evaporation rate	Not available	
Flammability (solid, gas)	Not available	
Lower inflammability limit	Not available	
Upper inflammability limit	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Vapour pressure	Not available	
Vapour density	Not available	
Relative density	1.11	
Solubility	soluble in water	

9. Physical and chemical properties ... / >>

Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	not applicable
Oxidising properties	not applicable

9.2. Other information

Total solids (250°C / 482°F)	100,00 %
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10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

ETHANEDIOL

Can absorb atmospheric humidity up to twice its own weight. Decomposes at temperatures over 200°C/392°F.

MERCURY (II) THIOCYANATE

Risk of dust explosion. Burns with a strong increase in volume. Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

MERCURY (II) THIOCYANATE

Sensitivity to light.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANEDIOL

Risk of explosion on contact with: perchloric acid. Can react dangerously with: chlorosulphuric acid, sodium hydroxide, sulphuric acid, phosphorus pentasulphide, chromium (III) oxide, chromyl chloride, potassium perchlorate, potassium dichromate, sodium peroxide, aluminium. Forms explosive mixtures with the air.

MERCURY (II) THIOCYANATE

A risk of explosion and/or of toxic gas formation exists with the following substances: acids. Violent reactions possible with: Oxidizing agents.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

ETHANEDIOL

Avoid exposure to sources of heat and naked flames.

MERCURY (II) THIOCYANATE

Strong heating.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

ETHANEDIOL

Hydroxyacetaldehyde, glyoxal, acetaldehyde, methane, carbon monoxide, hydrogen.

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11. Toxicological information ... / >>

11.1. Information on toxicological effects

ETHANEDIOL

Following ingestion it initially stimulates the CNS; later on depression results. Renal damage with anuria and uremia may occur. Symptoms of over exposure are: vomiting, somnolence, difficulty in breathing, convulsions. The lethal dose in man is approximately 1,4 l/kg. The way of entry is inhalation and ingestion.

MERCURY (II) THIOCYANATE

Acute inhalation toxicity, absorption, Symptoms: Lung oedema, The substance has delayed effects - Acute dermal toxicity, LD50 rat: 625 mg/kg (Regulation (EC) No 1272/2008, Annex VI), absorption - Specific target organ toxicity, repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ETHANEDIOL

LD50 (Oral)	> 2000 mg/kg Rat
LD50 (Dermal)	9530 mg/kg Rabbit

MERCURY (II) THIOCYANATE

LD50 (Oral)	46 mg/kg Rat
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SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

11. Toxicological information ... / >>

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

ETHANEDIOL

EC50 - for Crustacea > 100 mg/l/48h Daphnia magna

MERCURY (II) THIOCYANATE

LC50 - for Fish 0.15 mg/l/96h Pimephales promelas

EC50 - for Crustacea 0.0052 mg/l/48h Daphnia magna

12.2. Persistence and degradability

ETHANEDIOL

Solubility in water 1000 - 10000 mg/l
Rapidly degradable

MERCURY (II) THIOCYANATE

Solubility in water 700 mg/l

12.3. Bioaccumulative potential

ETHANEDIOL

Partition coefficient: n-octanol/water -1.36

MERCURY (II) THIOCYANATE

Partition coefficient: n-octanol/water -0.57 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

MERCURY (II) THIOCYANATE

Discharge into the environment must be avoided.

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity \leq 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MERCURY II THIOCYANATE SOLUTION)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MERCURY II THIOCYANATE SOLUTION)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (MERCURY II THIOCYANATE SOLUTION)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9



IMDG: Class: 9 Label: 9



IATA: Class: 9 Label: 9



14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: Environmentally Hazardous



14.6. Special precautions for user

ADR / RID: HIN - Kemler: 90
 Special Provision: -

Limited Quantities: 5 L

Tunnel restriction code: (-)

IMDG: EMS: F-A, S-F

Limited Quantities: 5 L

Packaging instructions: 964

IATA: Cargo:

Maximum quantity: 450 L

Packaging instructions: 964

Pass.:

Maximum quantity: 450 L

Special Instructions:

A97, A158, A197

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

Information not relevant

15. Regulatory information

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

U.S. Federal Regulations

TSCA:

All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

Clean Water Act – Priority Pollutants:

No component(s) listed.

Clean Water Act – Toxic Pollutants:

592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

No component(s) listed.

EPA List of Lists:

313 Category Code:

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

No component(s) listed.

CERCLA RQ:

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

EPCRA 313 TRI:

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

RCRA Code:

No component(s) listed.

CAA 112 (r) RMP TQ:

No component(s) listed.

State Regulations

Massachusetts:

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

Minnesota:

107-21-1 ETHANEDIOL

15. Regulatory information ... / >>

New Jersey:

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

New York:

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

Pennsylvania:

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

California:

107-21-1 ETHANEDIOL
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

Proposition 65:

WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

107-21-1 ETHANEDIOL D
592-85-8 MERCURY (II) THIOCYANATE (Mercury compounds)

International Regulations

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

MERCURY (II) THIOCYANATE - (MERCURY COMPOUNDS)

Substances subject to the Stockholm Convention:

None

Candadian WHMIS

Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H300 Fatal if swallowed.
H310 Fatal in contact with skin.
H330 Fatal if inhaled.
H301+H311 Toxic if swallowed or in contact with skin.
H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%

16. Other information ... / >>

- OEL: Occupational Exposure Level- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy
- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Communication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112© of the Clean Air Act
- Massachusetts 105 CMR Department of public health 670.000: "Right to Know"
- Minnesota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Product's classification is based on the criteria set out in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200), unless otherwise indicated in sections 11 and 12.

The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 09 / 12.