

**Safety data sheet according to U.S.A. Federal Hazcom 2012 and Canadian Regulation SOR/88-66**

**SECTION 1. Identification of the substance/mixture and of the company/undertaking.**

**1.1. Product identifier.**

Code: **HI93753A-0**  
 Product name: **Chloride Reagent A**

**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: **Hanna Instruments S.R.L.**  
 Full address: **str. Hanna Nr 1**  
 District and Country: **457260 loc. Nusfalau (Salaj) Romania**  
 Tel. **(+40) 260607700**  
 Fax. **(+40) 260607700**

e-mail address of the competent person responsible for the Safety Data Sheet: **sds@hannainst.com**

Product distribution by: **Hanna Instruments, Inc - 584 Park East, Woonsochet, Rhode Island, USA 02895 - Technical Service Contact Information: +1-800-426-6287**

**1.4. Emergency telephone number.**

For urgent inquiries refer to: **USA Emergency Contact Information: +1-800-424-9300 - CHEMTREC 24 hours/365 days - International Emergency Contact Information: +1-703-527-3887 - CHEMTREC 24hours/365 days**

**SECTION 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  
 Acute toxicity, category 4  
 Specific target organ toxicity - repeated exposure, category 2

Toxic if swallowed.  
 Harmful in contact with skin.  
 May cause damage to organs through prolonged or repeated exposure.

**Hazard pictograms:**



Signal words: **Danger**

**Hazard statements:**

**H301** Toxic if swallowed.  
**H312** Harmful 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 and face protection.

**Response:**

**P302+P352** IF ON SKIN: Wash with plenty of water and soap.  
**P312** Call a POISON CENTER or doctor, if you feel unwell.  
**P391** Collect spillage.

### SECTION 2. Hazards identification. ... / >>

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.  
Information not available.

### SECTION 3. Composition/information on ingredients.

#### 3.1. Substances.

Information not relevant.

#### 3.2. Mixtures.

Contains:

Identification.	x = Conc. %.	Classification:
<b>ETHANEDIOL</b>		
CAS. 107-21-1	50 ≤ 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		
Reg. no. 01-2119456816-28		
<b>MERCURY (II) THIOCYANATE</b>		
CAS. 592-85-8	0.25 ≤ x < 0.5	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=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410 M=1
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.

### SECTION 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.

### SECTION 4. First aid measures. ... / >>

**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.

For symptoms and effects caused by the contained substances, see chap. 11.

##### 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.

### SECTION 5. Firefighting 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).

### SECTION 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. If the product is flammable, use explosion-proof equipment. 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.

### SECTION 6. Accidental release measures. ... / >>

#### 6.4. Reference to other sections.

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

### SECTION 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.

### SECTION 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 TLV-ACGIH	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. ACGIH 2016	

#### ETHANEDIOL

##### Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
TLV-ACGIH	-			100 (C)		
OEL	EU	52	20	104	40	SKIN.
CAL/OSHA	USA	100	40			
NIOSH	USA				50 (C)	

#### MERCURY (II) THIOCYANATE

##### Threshold Limit Value.

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

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 (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

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

#### 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 and 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.

### SECTION 9. Physical and chemical properties.

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

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.	> 93 °C.	(199,4 °F)	
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.	1.110		
Solubility	soluble in water		
Partition coefficient: n-octanol/water	Not available.		
Auto-ignition temperature.	Not available.		
Decomposition temperature.	Not available.		
Viscosity	Not available.		
Explosive properties	Not available.		
Oxidising properties	Not available.		

#### 9.2. Other information.

Total solids (250°C / 482°F) 100,00 %

### SECTION 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.

### SECTION 10. Stability and reactivity. ... / >>

#### 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.

### SECTION 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.

#### 11.1. 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.

#### ACUTE TOXICITY.

LC50 (Inhalation - vapours) of the mixture:	Not classified (no significant component).
LC50 (Inhalation - mists / powders) of the mixture:	10,200 mg/l
LD50 (Oral) of the mixture:	600,000 mg/kg
LD50 (Dermal) of the mixture:	1000,002 mg/kg

#### 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.

### SECTION 11. Toxicological information. ... / >>

#### 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.

May cause damage to organs.

#### ASPIRATION HAZARD.

Does not meet the classification criteria for this hazard class.

### SECTION 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 biodegradable.

##### 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.

### SECTION 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.

### SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

#### 14.1. UN number.

Not applicable.

#### 14.2. UN proper shipping name.

Not applicable.

#### 14.3. Transport hazard class(es).

Not applicable.

#### 14.4. Packing group.

Not applicable.

#### 14.5. Environmental hazards.

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.

Information not relevant.

### SECTION 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

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:

No component(s) listed.

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



### SECTION 15. Regulatory information. ... / >>

592-85-8      MERCURY (II) THIOCYANATE

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

EPCRA 313 TRI:  
107-21-1      ETHANEDIOL  
592-85-8      MERCURY (II) THIOCYANATE

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

Minnesota:

107-21-1      ETHANEDIOL

New Jersey:

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

New York:

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

Pennsylvania:

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

California:

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

Proposition 65:

This product does not contain any substances known to the State of California to cause cancer, reproductive harm or birth defects.

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.

Canadian WHMIS:

Information not available.

### SECTION 16. Other information.

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

<b>Acute Tox. 1</b>	Acute toxicity, category 1
<b>Acute Tox. 2</b>	Acute toxicity, category 2
<b>Acute Tox. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4

### SECTION 16. Other information. ... / >>

<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>H300</b>	Fatal if swallowed.
<b>H310</b>	Fatal in contact with skin.
<b>H330</b>	Fatal if inhaled.
<b>H301</b>	Toxic if swallowed.
<b>H302</b>	Harmful if swallowed.
<b>H312</b>	Harmful in contact with skin.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	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 TQP: 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%
- 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
- 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

**SECTION 16. Other information.** ... / >>

- Massachusetts 105 CMR Department of public health 670.000: "Right to Know"
- Minnesota Chapter 5206 Department 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.