Safety Data Sheet

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

1. Identification

1.1. Product identifier

Code	**NH3-2**
Product name	**Ammonia Reagent 2**

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

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

1.3. Details of the supplier of the safety data sheet

Name	**Milwaukee Electronics Kft.**
Full address	**Alsókikötő 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

Substance or mixture corrosive to metals, category 1	May be corrosive to metals.
Acute toxicity, category 1	Fatal if swallowed.
Acute toxicity, category 1	Fatal in contact with skin.
Acute toxicity, category 2	Fatal if inhaled.
Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Skin corrosion, category 1	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H290	May be corrosive to metals.
H300+H310+H330	Fatal if swallowed, in contact with skin or if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.

2. Hazards identification ... / >>

H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
Response:
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 or doctor.
Storage:
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Disposal:
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The mixture contains 13.50% of components of unknown acute inhalation toxicity.

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, acute toxicity, category 1	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 2	Toxic to aquatic life with long lasting effects.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
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Response:
--
Storage:
--
Disposal:
--

Additional hazards
Information not available

3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification:
POTASSIUM TETRAIODOMERCURATE (II)		
CAS *7783-33-7*	9 ≤ x < 25	**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=100, Hazardous to the aquatic environment, chronic toxicity, category 1 H410 M=1**
EC *231-990-4*		
INDEX		

3. Composition/information on ingredients ... / >>

SODIUM HYDROXIDE

CAS	*1310-73-2*	9 ≤ x < 30	**Substance or mixture corrosive to metals, category 1 H290, Skin corrosion, category 1A H314, Serious eye damage, category 1 H318**
EC	*215-185-5*		
INDEX	*011-002-00-6*		

* 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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

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

POTASSIUM TETRAIODOMERCURATE (II)
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).

SODIUM HYDROXIDE
Irritation and corrosion, Cough, Shortness of breath, collapse, death. Risk of blindness!.

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.

POTASSIUM TETRAIODOMERCURATE (II)
Not combustible. Avoid shock and friction. Ambient fire may liberate hazardous vapours. Fire may cause evolution of: mercury vapours, iodine, hydrogen iodide.

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

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. 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	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
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

POTASSIUM TETRAIODOMERCURATE (II)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	0.02			

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

SODIUM HYDROXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			2 (C)	
OSHA	USA	2			
CAL/OSHA	USA	2			
NIOSH	USA			2 (C)	

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

POTASSIUM TETRAIODOMERCURATE (II)
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 jornadalaboral), ROU: 35 µg mercur/g creatină in urină (începutul schimbului următor).

SODIUM HYDROXIDE
Methods for measurement of the workplace atmosphere have to correspond to the requirements of norm OSHA ID-121.

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	straw yellow	
Odour	odourless	
Odour threshold	Not available	
pH	13.5	
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	

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

Upper explosive limit	Not available
Vapour pressure	17.5 mmHg
Vapour density	Not available
Relative density	1.3
Solubility	partially 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 applicable
Oxidising properties	not applicable

9.2. Other information

Total solids (250°C / 482°F)	25,83 %

10. Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

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

POTASSIUM TETRAIODOMERCURATE (II)
Sensitivity to light.

SODIUM HYDROXIDE
Hygroscopic.

10.3. Possibility of hazardous reactions

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

POTASSIUM TETRAIODOMERCURATE (II)
Risk of explosion with: Alkali metals. Risk of ignition or formation of inflammable gases or vapours with: halogen-halogen compounds.

SODIUM HYDROXIDE
Risk of explosion/exothermic reaction with: Acetone, Nitriles, phosphides, halogens, halogen-halogen compounds, chlorinated solvents, Ethylene oxide, Hydrazine hydrate, hydroxylamine, anhydrides, Peroxides, Acrolein, Acid chlorides, Acids, sulphuric acid, silver salt, hydrogen peroxide, organic nitro compounds, Water, Metals, Light metals. Possible formation of: Hydrogen. Violent reactions possible with: ammonium compounds, organic combustible substances, phenols. Generates dangerous gases or fumes in contact with: persulfates, Sodium borohydride, Oxides of phosphorus.

10.4. Conditions to avoid

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

POTASSIUM TETRAIODOMERCURATE (II)
Strong heating.

SODIUM HYDROXIDE
Exposure to the air, moisture and sources of heat.

10.5. Incompatible materials

SODIUM HYDROXIDE
Strong acids, ammonia, zinc, lead, aluminium, water and flammable liquids.

10.6. Hazardous decomposition products

Information not available

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

POTASSIUM TETRAIODOMERCURATE (II)
Acute inhalation toxicity absorption, Acute toxicity estimate: 0,051 mg/l; dust/mist, Expert judgement - Acute dermal toxicity, LD50 rat: 75 mg/kg, absorption - Sensitisation, Sensitisation possible in predisposed persons - Specific target organ toxicity - repeated exposure, Target Organs: Kidney, May cause damage to organs through prolonged or repeated exposure.

SODIUM HYDROXIDE
Acute oral toxicity, Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach - Acute inhalation toxicity, Symptoms: burns of mucous membranes, Cough, Shortness of breath, Possible damages:, damage of respiratory tract - Skin irritation, Rabbit, Result: Causes severe burns - Eye irritation, Rabbit, Result: Irreversible effects on the eye, Causes serious eye damage. Risk of blindness! - Sensitisation, Patch test: human, Result: Does not cause skin sensitisation - Germ cell mutagenicity, Genotoxicity in vitro, Mutagenicity (mammal cell test): micronucleus, Result: negative, (Lit.) Ames test, Result: negative.

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

POTASSIUM TETRAIODOMERCURATE (II)

LD50 (Oral)	18 mg/kg Rat
LD50 (Dermal)	75 mg/kg Rat
LC50 (Inhalation)	0.051 mg/l/4h

SODIUM HYDROXIDE

LD50 (Oral)	1350 mg/kg Rat
LD50 (Dermal)	1350 mg/kg Rat

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

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

11. Toxicological information ... / >>

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

12. Ecological information

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

12.1. Toxicity

POTASSIUM TETRAIODOMERCURATE (II)

LC50 - for Fish	0.13 mg/l/96h Leuciscus idus
EC50 - for Crustacea	0.0052 mg/l/48h Daphnia magna

SODIUM HYDROXIDE

LC50 - for Fish	45.4 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	40.38 mg/l/48h Daphnia

12.2. Persistence and degradability

SODIUM HYDROXIDE

Solubility in water > 10000 mg/l
Degradability: information not available

12.3. Bioaccumulative potential

Information not available

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

POTASSIUM TETRAIODOMERCURATE (II)
Discharge into the environment must be avoided.

SODIUM HYDROXIDE
Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted. Neutralisation possible in waste water treatment plants.
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

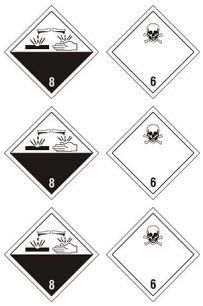
ADR / RID, IMDG, IATA: 2922

14.2. UN proper shipping name

ADR / RID:	CORROSIVE LIQUID, TOXIC, N.O.S. (SODIUM HYDROXIDE, POTASSIUM TETRAIODOMERCURATE II) MIXTURE
IMDG:	CORROSIVE LIQUID, TOXIC, N.O.S. (SODIUM HYDROXIDE, POTASSIUM TETRAIODOMERCURATE II) MIXTURE
IATA:	CORROSIVE LIQUID, TOXIC, N.O.S. (SODIUM HYDROXIDE, POTASSIUM TETRAIODOMERCURATE II) MIXTURE

14.3. Transport hazard class(es)

ADR / RID:	Class: 8	Label: 8 (6.1)
IMDG:	Class: 8	Label: 8 (6.1)
IATA:	Class: 8	Label: 8 (6.1)



14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 86 Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 30 L Maximum quantity: 1 L A3, A803	Packaging instructions: 855 Packaging instructions: 851

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):
7783-33-7 POTASSIUM TETRAIODOMERCURATE (II) (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:
7783-33-7 POTASSIUM TETRAIODOMERCURATE (II) (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:
7783-33-7 POTASSIUM TETRAIODOMERCURATE (II) (Mercury compounds)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
7783-33-7 POTASSIUM TETRAIODOMERCURATE (II) (Mercury compounds)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
1310-73-2 SODIUM HYDROXIDE

Minnesota:
1310-73-2 SODIUM HYDROXIDE

New Jersey:
7783-33-7 POTASSIUM TETRAIODOMERCURATE (II) (Mercury compounds)
7783-33-7 POTASSIUM TETRAIODOMERCURATE (II) (Mercury compounds)
1310-73-2 SODIUM HYDROXIDE

15. Regulatory information ... / >>

New York:
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
1310-73-2 SODIUM HYDROXIDE

California:
7783-33-7 POTASSIUM TETRAIODOMERCURATE (II) (Mercury compounds)
1310-73-2 SODIUM HYDROXIDE

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
7783-33-7 POTASSIUM TETRAIODOMERCURATE (II) (Mercury compounds)

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
POTASSIUM TETRAIODOMERCURATE (II) - (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:

H290	May be corrosive to metals.
H300+H310+H330	Fatal if swallowed, in contact with skin or if inhaled.
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
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%
- 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

16. Other information ... / >>

- 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 Comunication 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
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota 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 / 03 / 09.