

Safety Data Sheet

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

1. Identification

1.1. Product identifier

Code **HI93728-0**
Product name **Nitrate Reagent**

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

Intended use **Determination of Nitrate in water samples. Restricted to professional use.**

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. Nufalau (Salaj) Romania**
Tel. **+40 260607700**
Fax **+40 260607700**

e-mail address of the competent person responsible for the Safety Data Sheet

msds@hanna.ro

Product distribution by:

Hanna Instruments, Inc - 584 Park East Drive, Woonsocket, Rhode Island, USA 02895 - Technical Service Contact Information: +1 8004266287 - e-mail: sds@hannainst.com

1.4. Emergency telephone number

For urgent inquiries refer to **USA Emergency Contact Information: +1 8004249300 - CHEMTREC 24 hours/365 days - International Emergency Contact Information: +1 7035273887 - 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

Carcinogenicity, category 1B
Germ cell mutagenicity, category 2
Reproductive toxicity, category 2
Acute toxicity, category 2
Specific target organ toxicity - repeated exposure, category 1
Skin corrosion, category 1
Serious eye damage, category 1
Skin sensitization, category 1

May cause cancer.
Suspected of causing genetic defects.
Suspected of damaging fertility or the unborn child.
Fatal if inhaled.
Causes damage to organs through prolonged or repeated exposure.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause an allergic skin reaction.

Hazard pictograms:



Signal words: **Danger**

Hazard statements:

H350 May cause cancer.
H341 Suspected of causing genetic defects.

2. Hazards identification ... / >>

H361	Suspected of damaging fertility or the unborn child.
H330	Fatal if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:

Prevention:

P201	Obtain special instructions before use.
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.
P308+P311	IF exposed or concerned: Call a POISON CENTER or doctor.
P391	Collect spillage.

Storage:

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Disposal:

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The mixture contains 87.47% 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:

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Storage:

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Disposal:

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Additional hazards

Corrosive to the respiratory tract.

3. Composition/information on ingredients

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

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification:	
POTASSIUM DISULFATE			
CAS	7790-62-7	$7.5 \leq x < 10$	Acute toxicity, category 3 H331, Skin corrosion, category 1A H314, Serious eye damage, category 1 H318
EC	232-216-8		
INDEX			
SULFANILIC ACID			
CAS	121-57-3	$4 \leq x < 5$	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317
EC	204-482-5		
INDEX	612-014-00-X		
CADMIUM (non pyrophoric)			
CAS	7440-43-9	$4 \leq x < 5$	Carcinogenicity, category 1B H350, Germ cell mutagenicity, category 2 H341, Reproductive toxicity, category 2 H361, Acute toxicity, category 2 H330, Specific target organ toxicity - repeated exposure, category 1 H372, 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	231-152-8		
INDEX	048-002-00-0		
2,5-DIHYDROXYBENZOIC ACID			
CAS	490-79-9	$2 \leq x < 3$	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335
EC	207-718-5		
INDEX			
COPPER (II) SULFATE			
CAS	7758-99-8	$0.1 \leq x < 0.25$	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410 M=10
EC	231-847-6		
INDEX	029-004-00-0		

* 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 DISULFATE

Irritation and corrosion, Cough, Shortness of breath. Risk of blindness!.

SULFANILIC ACID

Irritant effects, Allergic reactions. The following applies to aromatic amines in general: systemic effect: methaemoglobinaemia with headache, cardiac dysrhythmia, drop in blood pressure, dyspnoea, and spasms, principal symptom: cyanosis (blue discolouration of the blood).

CADMIUM (non pyrophoric)

Irritant effects, Cough, Shortness of breath, Diarrhoea, Nausea, Vomiting, Salivation, metallic taste.

COPPER (II) SULFATE

Irritant effects, conjunctivitis, gastric pain, Diarrhoea, Vomiting, collapse, death Risk of corneal clouding.

4. First-aid measures ... / >>

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. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

POTASSIUM DISULFATE

Not combustible. Ambient fire may liberate hazardous vapours. Fire may cause evolution of: Sulphur oxides.

SULFANILIC ACID

Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Fire may cause evolution of: Sulphur oxides, nitrogen oxides.

COPPER (II) SULFATE

Not combustible. Ambient fire may liberate hazardous vapours. Fire may cause evolution of: Sulphur oxides.

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

If there are no contraindications, spray powder with water to prevent the formation of dust.

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 and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.

Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. 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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during 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 the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. 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	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).
	TLV-ACGIH	ACGIH 2019

CADMIUM (non pyrophoric)

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Remarks / Observations
TLV-ACGIH	-	0.01				
OSHA	USA	0.005				
CAL/OSHA	USA	0.005				

COPPER (II) SULFATE

Threshold Limit Value

Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Remarks / Observations
TLV-ACGIH	-	1				

Legend:

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

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

CADMIUM (non pyrophoric)

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norm ISO 11174 - Biological Values, ACGIH: 5 µg/g creatinine Cadmium in urine, 5 µg/l Cadmium in blood - ESP: 5 µg/g creatinina Cadmio en orina - ROU: 10 µg/g creatinina in urină (sfârşit schimb).

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

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (OSHA 29 CFR 1910.138). Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

SKIN PROTECTION

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

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

EYE PROTECTION Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the operator is exposed to a carcinogenic or mutagenic agent, wear a facemask with 99.97% filter efficiency (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134).

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.

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	solid powder	
Colour	grey	
Odour	odourless	
Odour threshold	Not available	
pH	2.7 - 3.0 pH, 22 g/L	
Melting point / freezing point	Not available	
Initial boiling point	Not applicable	
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	Not available	
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 available	
Oxidising properties	Not available	

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.

SULFANILIC ACID

Decomposes without melting at temperatures > 288°C/550°F.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

The powders are potentially explosive when mixed with air.

CADMIUM (non pyrophoric)

Risk of explosion on contact with: zinc, ammonium nitrate, heat.

May react dangerously with: ammonia, potassium, lithium, phosphorus trichloride, selenium, strong oxidising agents, potassium chlorate.

COPPER (II) SULFATE

Exothermic reaction with: Strong oxidizing agents, hydroxylamine, magnesium.

10. Stability and reactivity ... / >>

10.4. Conditions to avoid

Avoid environmental dust build-up.

POTASSIUM DISULFATE

Exposure to moisture.

COPPER (II) SULFATE

Strong heating (decomposition).

10.5. Incompatible materials

SULFANILIC ACID

Strong acids and bases. Incompatible with alkyl oxides, aliphatic amines, alkanolamines, amides, ammonia, epichlorohydrin, organic anhydrides, isocyanates, vinyl acetates and oxidising agents.

10.6. Hazardous decomposition products

SULFANILIC ACID

Sulphur oxides, nitric oxides.

11. Toxicological information

11.1. Information on toxicological effects

POTASSIUM DISULFATE

Acute inhalation toxicity, absorption, Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages, damage of respiratory tract, Lung oedema, Symptoms may be delayed - Skin irritation (in analogy to similar products), Causes severe burns. - Eye irritation (in analogy to similar products), Causes serious eye damage. Risk of blindness!

SULFANILIC ACID

Acute inhalation toxicity, Symptoms: Possible damages, Irritation symptoms in the respiratory tract - Skin irritation, rabbit, Result: slight irritation, Causes skin irritation - Eye irritation, rabbit, Result: Eye irritation, Causes serious eye irritation - Sensitisation Sensitisation test: guinea pig, Result: positive, May cause an allergic skin reaction.

CADMIUM (non pyrophoric)

Symptoms: mucosal irritations, Cough, Shortness of breath, Inhalation may lead to the formation of oedemas in the respiratory tract. Absorption - CMR effects, Carcinogenicity: May cause cancer - Mutagenicity: Suspected of causing genetic defects - Teratogenicity: Suspected of damaging the unborn child - Reproductive toxicity: Suspected of damaging fertility.

COPPER (II) SULFATE

Skin irritation, Causes skin irritation - Eye irritation, Risk of corneal clouding. conjunctivitis. Causes serious eye irritation - Genotoxicity in vivo, Mutagenicity (mammal cell test): micronucleus, Result: negative (National Toxicology Program) - Genotoxicity in vitro Ames test, Salmonella typhimurium, 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

Corrosive to the respiratory tract.

POTASSIUM DISULFATE

LD50 (Oral)

LC50 (Inhalation)

2140 mg/kg Rat

0.85 mg/l/4h Rat

11. Toxicological information ... / >>

2,5-DIHYDROXYBENZOIC ACID LD50 (Oral)	800 mg/kg
SULFANILIC ACID LD50 (Oral)	> 2000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rat
CADMIUM (non pyrophoric) LD50 (Oral)	890 mg/kg
LC50 (Inhalation)	0.051 mg/l/1h
COPPER (II) SULFATE LD50 (Oral)	482 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Suspected of causing genetic defects

CARCINOGENICITY

May cause cancer

Carcinogenicity Assessment:
7440-43-9 CADMIUM (non pyrophoric)
IARC:1
NTP: Known

REPRODUCTIVE TOXICITY

Suspected of damaging fertility or the unborn child

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Causes 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

12. Ecological information ... / >>

CADMIUM (non pyrophoric)

Toxicity to bacteria, static test NOEC activated sludge: 0,2 mg/l, 3 h, Analytical monitoring: yes.

POTASSIUM DISULFATE

LC50 - for Fish 680 mg/l/96h Pimephales promelas

EC50 - for Crustacea 720 mg/l/48h Daphnia magna

SULFANILIC ACID

LC50 - for Fish > 100 mg/l/96h Danio rerio

EC50 - for Crustacea 23 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 32 mg/l/72h Desmodesmus subspicatus

CADMIUM (non pyrophoric)

EC50 - for Crustacea 0.038 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 0.0023 mg/l/72h Selenastrum capricornutum

LC10 for Fish 1.5 mg/l/96h Pimephales promelas

Chronic NOEC for Algae / Aquatic Plants 0.031 mg/l Scenedesmus quadricauda

COPPER (II) SULFATE

LC50 - for Fish 0.11 mg/l/96h Oncorhynchus mykiss

EC50 - for Crustacea 0.02 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 0.02 mg/l/72h

Chronic NOEC for Crustacea 0.0088 mg/l Paracetrotus lividus

12.2. Persistence and degradability

SULFANILIC ACID

Solubility in water > 10000 mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2,5-DIHYDROXYBENZOIC ACID

Partition coefficient: n-octanol/water 1.74

SULFANILIC ACID

Partition coefficient: n-octanol/water -2.298

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 $\geq$ than 0,1%.

12.6. Other adverse effects

12. Ecological information ... / >>

COPPER (II) SULFATE
Fungicide. 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: 2923

14.2. UN proper shipping name

ADR / RID: CORROSIVE SOLID, TOXIC, N.O.S. (POTASSIUM DISULFATE, CADMIUM,) MIXTURE
IMDG: CORROSIVE SOLID, TOXIC, N.O.S. (POTASSIUM DISULFATE, CADMIUM,) MIXTURE
IATA: CORROSIVE SOLID, TOXIC, N.O.S. (POTASSIUM DISULFATE, CADMIUM,) 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: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 86	Limited Quantities: 1 kg	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 kg	
IATA:	Cargo:	Maximum quantity: 50 Kg	Packaging instructions: 863
	Pass.:	Maximum quantity: 15 Kg	Packaging instructions: 859
	Special Instructions:	A3, A803	

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

15. Regulatory information ... / >>

TSCA:

All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):

7440-43-9 CADMIUM (non pyrophoric)

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:

7440-43-9 CADMIUM (non pyrophoric)

Clean Water Act – Toxic Pollutants:

7440-43-9 CADMIUM (non pyrophoric)

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:

7440-43-9 CADMIUM (non pyrophoric)

EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

No component(s) listed.

CERCLA RQ:

7440-43-9 CADMIUM (non pyrophoric)

EPCRA 313 TRI:

7440-43-9 CADMIUM (non pyrophoric)

RCRA Code:

No component(s) listed.

CAA 112 (r) RMP TQ:

No component(s) listed.

State Regulations

Massachusetts:

7440-43-9 CADMIUM (non pyrophoric)

Minnesota:

7440-43-9 CADMIUM (non pyrophoric)

New Jersey:

7440-43-9 CADMIUM (non pyrophoric)

New York:

7440-43-9 CADMIUM (non pyrophoric)

Pennsylvania:

7440-43-9 CADMIUM (non pyrophoric)

California:

7440-43-9 CADMIUM (non pyrophoric)

Proposition 65:

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

7440-43-9 CADMIUM (non pyrophoric) C/D/R

15. Regulatory information ... / >>

International Regulations

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

CADMIUM (non pyrophoric) - (CADMIUM AND ITS COMPOUNDS)

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

16. Other information

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

H350	May cause cancer.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
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
- 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

16. Other information ... / >>

- 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 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.

CALCULATION METHODS FOR CLASSIFICATION

Product classification derives from criteria established by the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200), unless determined otherwise in Section 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 / 08 / 11 / 15.