

## SAFETY DATA SHEET

Preparation Date: 09/10/2019

Revision date 09/10/2019

Revision Number: G1

### 1. IDENTIFICATION

#### Product identifier

**Product code:** C1051  
**Product Name:** CADMIUM SULFATE, HYDRATE, TECHNICAL

#### Other means of identification

**Synonyms:** Cadmium sulfate octahydrate  
 Sulfuric acid, cadmium salt, hydrate  
**CAS #:** 7790-84-3  
**RTECS #** EV2850000  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>  
**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Tom Tyner (USA - West Coast)  
**Contact Person:** Ibad Tirmiz (USA - East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Germ cell mutagenicity	Category 1A
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 1

#### Label elements

**Danger**

#### **Hazard statements**

Fatal if inhaled  
 Toxic if swallowed

May cause genetic defects  
May cause cancer  
May damage fertility or the unborn child  
Causes damage to organs through prolonged or repeated exposure



**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

Very toxic to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dust  
Use only outdoors or in a well-ventilated area  
Wear respiratory protection

**Precautionary Statements - Response**

*IF exposed or concerned: Get medical attention*  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.  
IF SWALLOWED: Immediately call a POISON CENTER or physician  
Rinse mouth

**Precautionary Statements - Storage**

Store locked up  
Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS No	Weight-%
Cadmium Sulfate, Hydrate	7790-84-3	100

**4. FIRST AID MEASURES**

**First aid measures**

**General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. First aider needs to protect himself. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and

shoes. Get medical attention if irritation develops. Consult a physician if necessary.

**Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

**Ingestion:** Toxic if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**  
May cause eye/skin irritation  
May cause irritation of respiratory tract  
May cause coughing and shortness of breath  
Weakness  
Headache  
Fever  
Nausea  
Vomiting  
May cause diarrhea  
Dizziness  
Convulsions  
Seizures

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

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:** The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous combustion products** Sulfur oxides. Metal oxides.

**Specific hazards** May be combustible at high temperatures.

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent)

and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

**Safe Handling Advice:**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

**Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**

Oxidizing agents  
Metals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### National occupational exposure limits

##### United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Cadmium Sulfate, Hydrate	7790-84-3	None	None	None	None

##### Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
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Cadmium Sulfate, Hydrate	7790-84-3	None	None	None	None
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### Australia and Mexico

Component	CAS No	Australia	Mexico
Cadmium Sulfate, Hydrate	7790-84-3	None	None

### Appropriate engineering controls

**Engineering measures to reduce exposure:** Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

- Eye protection:** Goggles or Safety glasses with side-shields.
- Skin and body protection:** Chemical resistant apron  
Gloves  
Long sleeved clothing
- Respiratory protection:** Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> Crystals.	<b>Color:</b> Colorless.
<b>Odor:</b> No information available.	<b>Taste</b> No information available.	<b>Formula</b> CdSO <sub>4</sub> .8/3H <sub>2</sub> O
<b>Molecular/Formula weight (g/mole):</b> 256.52	<b>Flammability (solid, gas)</b> no data available	<b>Flashpoint (°C/°F):</b> No information available
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> 108°C/ 226.4°F	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Boiling point/range(°C/°F):</b> 765°C/ 1409°F	<b>Bulk density:</b> No information available	<b>Density (g/cm<sup>3</sup>):</b> No information available
<b>Specific gravity:</b> 3.08	<b>pH</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b>		

No information available

**Vapor density:**  
No information available

**VOC content (g/L):**  
No information available

**Odor threshold (ppm):**  
No information available

**Partition coefficient  
(n-octanol/water):**  
No information available

**Viscosity:**  
No information available

**Miscibility:**  
No information available

**Solubility:**  
Soluble in Water  
Insoluble in Acetone  
Insoluble in Alcohol  
Insoluble in Ammonia  
Insoluble in Ethyl acetate

## 10. STABILITY AND REACTIVITY

### Reactivity

No information available

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Ignition sources. Incompatible materials.

**Incompatible Materials:** Oxidizing agents  
Metals

**Hazardous decomposition products:** Sulfur oxides. Cadmium oxide.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**  
Skin. Inhalation. Ingestion.

### Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document  
**Component Information**

Cadmium Sulfate, Hydrate

CAS No 7790-84-3

**LD50/oral/rat** = No information available

**LD50/oral/mouse** = 88 mg/kg Oral LD50 Mouse

**LD50/dermal/rabbit** = No information available

**LD50/dermal/rat** = No information available

LC50/inhalation/rat = >0.0046 mg/l 3h Inhalation LC50 Rat  
LC50/inhalation/mouse = No information available  
Other LD50 or LC50information = No information available

#### Product Information

LD50/oral/rat =  
Value - Acute Toxicity = 107 mg/kg

LD50/oral/mouse =  
Value - Acute Tox = 88 mg/kg

LD50/dermal/rabbit  
Value - Acute Toxicity = No information available

LD50/dermal/rat  
VALUE - Acute Tox = No information available

LC50/inhalation/rat  
VALUE-Vapor = No information available  
VALUE-Gas = No information available  
VALUE-Dust/Mist = >0.0046 mg/l 3h

LC50/Inhalation/mouse  
VALUE-Vapor = No information available  
VALUE - Gas = No information available  
VALUE - Dust/Mist = No information available

#### Symptoms

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause irritation of respiratory tract. May cause metallic taste. Symptoms may include coughing and shortness of breath. May cause muscle weakness. It may cause pulmonary edema. May affect the kidneys. It may affect the liver.

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause salivation. May affect behavior/central nervous system (dizziness, headache). May affect behavior/central nervous system (convulsions/seizures). May cause shock.

**Aspiration hazard** No information available.

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

**Chronic Toxicity** Prolonged or repeated ingestion may affect the liver, and kidneys. Prolonged or repeated ingestion may affect the urinary system. Prolonged or repeated ingestion may affect the blood (anemia). Prolonged or repeated inhalation may cause bronchitis with coughing, phlegm, and/or shortness of breath. Prolonged or repeated inhalation can irritate the lungs.

**Sensitization:** No information available.

**Mutagenic Effects:** May cause genetic defects

**Carcinogenic effects:** May cause cancer.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Cadmium Sulfate, Hydrate	7790-84-3	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

*ACGIH (American Conference of Governmental Industrial Hygienists)*

*IARC (International Agency for Research on Cancer)*

*NTP (National Toxicology Program)*

*OSHA (Occupational Safety and Health Administration of the US Department of Labor)*

**Reproductive toxicity** May damage fertility or the unborn child

**Reproductive Effects:** No information available

**Developmental Effects:** No information available

**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

**Target Organs:** Liver, kidney, and respiratory system.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available.

**Mobility in soil** No information available

**Other adverse effects** No information available.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**

Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**

Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Cadmium Sulfate, Hydrate	7790-84-3	None	None	None	None

**14. TRANSPORT INFORMATION**



**DOT**

**UN-No:** UN2570  
**Proper Shipping Name:** Cadmium compounds  
**Hazard Class** 6.1  
**Subsidiary Class** No information available  
**Packing group:** III  
**Emergency Response Guide Number** 154  
**Marine Pollutant** Marine Pollutant  
**DOT RQ (lbs):** No information available  
**Special Provisions** IB8, IP3, T1, TP33  
**Symbol(s):** No information available  
**Description:** UN2570, Cadmium compounds, 6.1, III

**TDG (Canada)**

**UN-No:** UN2570  
**Proper Shipping Name:** Cadmium compound  
**Hazard Class** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant** Marine Pollutant  
**Description:** UN2570, Cadmium compound, 6.1, III

**ADR**

**UN Number** UN2570  
**Proper Shipping Name:** Cadmium compound  
**Transport hazard class(es)** 6.1  
**Packing group** III  
**Subsidiary Risk:** No information available  
**Special Provisions** 274, 596  
**Description:** UN2570, Cadmium compound, 6.1, III

**IMDG**

**UN-No:** UN2570  
**Proper Shipping Name:** Cadmium compounds  
**Hazard Class:** 6.1  
**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Marine Pollutant** Marine Pollutant  
**EMS:** F-A  
**Special Provisions** 223, 274  
**Description** UN2570, Cadmium compound (CADMIUM SULFATE, HYDRATE), 6.1, III

**RID**

**UN Number** UN2570  
**Proper Shipping Name:** Cadmium compound  
**Transport hazard class(es)** 6.1  
**Subsidiary Risk:** No information available  
**Packing group** III  
**Special Provisions** 274, 596  
**Description:** UN2570, Cadmium compound, 6.1, III

**ICAO (air)**

**UN-No:** UN2570  
**Proper Shipping Name:** Cadmium compound  
**Hazard Class** 6.1

**Subsidiary Risk:** No information available  
**Packing Group:** III  
**Description:** UN2570, Cadmium compound, 6.1, III  
**Special Provisions** A3, A5

**IATA**

**UN Number** UN2570  
**Proper Shipping Name:** Cadmium compound  
**Transport hazard class(es)** 6.1  
**Subsidiary Risk:** No information available  
**Packing group** III  
**Precautionary Statements - Response** 6L  
**Special Provisions** No information available  
**Description:** UN2570, Cadmium compound, 6.1, III

**15. REGULATORY INFORMATION**

**International Inventories**

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
<i>Cadmium Sulfate, Hydrate</i>	7790-84-3	Not Listed	Not present	Present	Not present	Present	Present	Not present

**U.S. Regulations**

**California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.**

**Chemicals Known to the State of California to Cause Cancer:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Cadmium Sulfate, Hydrate	7790-84-3	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Cadmium Sulfate, Hydrate</i>	7790-84-3	None	None	None	None	None

**U.S. TSCA**

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Cadmium Sulfate, Hydrate	7790-84-3	Not Applicable	Not Applicable

**Canada**

## WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

**Canada Hazardous Products Regulation** This product has not been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

## DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Cadmium Sulfate, Hydrate	7790-84-3	Not Listed	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Cadmium Sulfate, Hydrate	7790-84-3	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Cadmium Sulfate, Hydrate	7790-84-3	Not listed

## EU Classification

### EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Cadmium Sulfate, Hydrate	7790-84-3	

### EU - CLP (1272/2008)

#### **R-phrase(s)**

R26 - Very toxic by inhalation  
R25 - Toxic if swallowed  
R45 - May cause cancer  
R63 - Possible risk of harm to the unborn child  
R60 - May impair fertility

#### **S -phrase(s)**

S 7 - Keep container tightly closed.  
S 9 - Keep container in a well-ventilated place.  
S36 - Wear suitable protective clothing  
S38 - In case of insufficient ventilation, wear suitable respiratory equipment  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Cadmium Sulfate, Hydrate	7790-84-3		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

#### **Indication of danger:**

T+ - Very toxic  
Xn - Harmful

**T+****Xn****16. OTHER INFORMATION**

**Preparation Date:** 09/10/2019  
**Revision date** 09/10/2019  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**