

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name : Cadmium sulfate 8/3-hydrate

CAS-No. : 7790-84-3

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

Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 2)

Germ cell mutagenicity (Category 1B)

Carcinogenicity Category 1B)

Reproductive toxicity (Category 1B)

Specific target organ toxicity - repeated exposure (Category 1)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

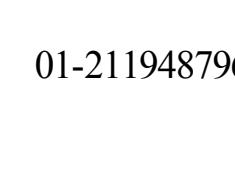
Classification according to EU Directives 67/548/EEC or 1999/45/EC

May cause cancer. May cause heritable genetic damage. May impair fertility. May cause harm to the unborn child. Toxic if swallowed. Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Very toxic by inhalation. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word : Danger

Hazard statement(s)

H301 : Toxic if swallowed.

H330 : Fatal if inhaled.

H340 : May cause genetic defects.

H350 : May cause cancer.

H360 : May damage fertility or the unborn child.

H372 : Causes damage to organs through prolonged or repeated exposure.

H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201 : Obtain special instructions before use.

P260 : Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P273 : Avoid release to the environment.

P284 : Wear respiratory protection.

P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P310 : Immediately call a POISON CENTER or doctor/ physician.

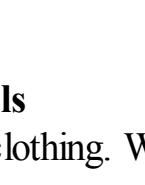
Supplemental Hazard Statements

None

Restricted to professional users.

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

R45 : May cause cancer.

R46 : May cause heritable genetic damage.

R60 : May impair fertility.

R61 : May cause harm to the unborn child.

R25 : Also toxic if swallowed.

R26 : Also very toxic by inhalation.

R48/23/25 : Also toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S53 : Avoid exposure - obtain special instructions before use.

S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 : This material and its container must be disposed of as hazardous waste.

S61 : Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Restricted to professional users.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : CdO₄S · 2.67H₂O

Molecular Weight : 256,57 g/mol

Concentration

Cadmium sulfate hydrate

CAS-No. : 7790-84-3

EC-No. : 233-331-6

Registration number : 01-2119487964-18-XXXX

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Acute inhalation exposure to cadmium fumes may cause "metal fume fever" with flu-like symptoms of weakness, fever, headache, chills, nausea, vomiting, dizziness, sweating, muscular pain, cough and difficulty breathing. Acute pulmonary edema may develop within 24 hours and reaches a maximum by three days. The first chronic effect of exposure to cadmium is generally kidney damage, manifested by excretion of excessive protein in the urine, followed by anemia, teeth discoloration and loss of smell. Cadmium also is believed to cause pulmonary emphysema and bone disease. Effects due to ingestion may include: Headache, Diarrhoea, muscle weakness, Seizures, Liver injury may occur, Kidney injury may occur.

4.3 Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Sulphur oxides, Cadmium/cadmium oxides

5.3 Advice for fire fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use.

Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance

Form: solid

b) Odour

no data available

c) Odour Threshold

no data available

d) pH

no data available

e) Melting point/freezing point

no data available

f) Initial boiling point and boiling range

no data available

g) Flash point

not applicable

h) Evaporation rate

no data available

i) Flammability (solid, gas)

no data available

j) Upper/lower explosive limits

no data available

k) Vapour density

no data available

l) Relative density

3.08 g/cm³

m) Water solubility

no data available

n) Octanol/water partition coefficient

no data available

o) Autoignition temperature

no data available

q) Decomposition temperature

no data available

r) Viscosity

no data available

s) Explosive properties

no data available

t) Oxidizing properties

no data available