

SAFETY DATA SHEET

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SECTION 1. IDENTIFICATION

Product Identifier: Cobalt Sulfate Solution

Product Code: CO-SAT-01-SOL.7HYD

CAS Number: 10026-24-1

Relevant identified uses of the substance: Scientific research and development

Supplier details:

American Elements
10884 Weyburn Ave.
Los Angeles, CA 90024
Tel: +1 310-208-0551
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+1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classification

Acute oral toxicity: Category 4
Respiratory Sensitization: Category 1
Skin Sensitization: Category 1
Germ Cell Mutagenicity: Category 2
Carcinogenicity: Category 1B
Reproductive Toxicity: Category 1B

Label Elements

Signal Word:
Danger

Hazard Statements:

Harmful if swallowed
May cause an allergic skin reaction
May cause allergy or asthma symptoms or breathing difficulties if inhaled
Suspected of causing genetic defects
May cause cancer by inhalation
May damage fertility



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

Avoid breathing dust/fume/gas/mist/vapors/spray

In case of inadequate ventilation wear respiratory protection

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Response:

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Skin:

IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

Ingestion:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Storage:

Store locked up

Disposal:

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

WARNING. Cancer - <https://www.p65warnings.ca.gov/>.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component: Cobalt Sulfate solution

CAS-No: 10026-24-1

SECTION 4. FIRST AID MEASURES

Eye Contact

Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Inhalation

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give 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

Clean mouth with water. Do not induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms and effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Notes to Physician

Treat symptomatically

SECTION 5. FIREFIGHTING MEASURES

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method - No information available

Autoignition Temperature

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products

Sulfur oxides

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

NFPA

Health

2

Flammability

Instability

1

Physical hazards

N/A

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Ensure adequate ventilation. Use personal protective equipment.

Environmental Precautions Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

SECTION 7. HANDLING AND STORAGE

Handling

Do not breathe dust. Do not get in eyes, on skin, or on clothing. Use only in area provided with appropriate exhaust ventilation. Wash hands before breaks and immediately after handling the product.

Storage

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component: Cobalt(II) sulfate heptahydrate

ACGIH TLV: TWA: 0.02 mg/m³

OSHA PEL

NIOSH IDLH

Mexico OEL (TWA)

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid
Appearance: Liquid
Odor: Not determined
Odor Threshold: Not determined
pH: Not determined
Melting Point/Range: Not determined
Boiling Point/Range: Not determined
Flash Point: Not determined
Evaporation Rate: Not determined
Flammability (solid,gas): Not determined
Flammability or explosive limits
Upper: Not determined
Lower: Not determined
Vapor Pressure: Not determined
Vapor Density : Not determined
Specific Gravity: Not determined
Solubility: Not determined
Partition coefficient; n-octanol/water: Not determined
Autoignition Temperature
Decomposition Temperature: Not determined
Viscosity: Not determined
Molecular Formula $\text{Co O}_4 \text{ S} \cdot 7 \text{ H}_2 \text{ O}$
Molecular Weight: Not determined

SECTION 10. STABILITY AND REACTIVITY

Reactive Hazard
None known, based on information available

Stability
Hygroscopic.

Conditions to Avoid
Incompatible products. Exposure to moist air or water.

Incompatible Materials
Strong oxidizing agents

Hazardous Decomposition Products
Sulfur oxides

Hazardous Polymerization
Hazardous polymerization does not occur.

Hazardous Reactions
None under normal processing

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component: Cobalt(II) sulfate heptahydrate

LD50 Oral: LD50 = 582 mg/kg (Rat)

LD50 Dermal: Not listed

LC50 Inhalation: Not listed

Toxicologically Synergistic Products

No information available

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

Irritation

May cause irritation

Sensitization

No information available

Carcinogenicity

Component: Cobalt sulfate

CAS-No: 10026-24-1

IARC: Group 2B

NTP: Reasonably Anticipated

ACGIH: A3

OSHA: X

Mexico: Not listed

Mutagenic Effects

Mutagenic effects have occurred in experimental animals.

Reproductive Effects

Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects

No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard

No information available

Symptoms / effects, both acute and delayed

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Endocrine Disruptor Information

No information available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component: Cobalt sulfate

Freshwater Algae: EC50: 0.4 - 72 mg/L, 72h (*Pseudokirchneriella subcapitata*)

Freshwater Fish

Microtox

Water Flea

Persistence and Degradability

Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation

No information available.

Mobility

Will likely be mobile in the environment due to its water solubility.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14. TRANSPORT INFORMATION

DOT (US)

UN-Number: 3082 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substances, liquid, n.o.s. (Cobalt(II) sulfate)

Reportable Quantity (RQ): 400 lbs

Marine pollutant: Marine pollutant

Poison Inhalation Hazard: No

IMDG

UN-Number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cobalt(II) sulfate)

Marine pollutant: Marine pollutant

IATA

UN-Number: 3082 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Cobalt(II) sulfate)

SECTION 15. REGULATORY INFORMATION

International Inventories

Component: Cobalt sulfate

TSCA

DSL
NDSL
EINECS
ELINCS
NLP
PICCS: X
ENCS: X
AICS: X
IECSC: X
KECL

U.S. Federal Regulations
TSCA 12(b) Not applicable
SARA 313
Component: Cobalt sulfate
CAS-No: 10026-24-1

SARA 313 - Threshold Values: 0.1 %

SARA 311/312 Hazard Categories

CWA (Clean Water Act)
Not applicable

Clean Air Act
HAPS Data: X
Class 1 Ozone Depletors
Class 2 Ozone Depletor: -

OSHA: Not applicable

CERCLA: Not applicable

California Proposition 65
Component: Cobalt Sulfate
CAS-No: 10026-24-1
California Prop. 65: Carcinogen
Prop 65 NSRL -
Category: Carcinogen

U.S. State Right-to-Know Regulations
Massachusetts X
New Jersey X
Pennsylvania X
Illinois X
Rhode Island X

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.