

SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

<u>TRADE NAME (AS LABELED):</u>	Cobalt Sulfate Crystal - Regulated
<u>SYNONYMS:</u>	Cobalt (II) sulfate heptahydrate; sulfuric acid, cobalt (2+) salt (1:1) heptahydrate; cobalt monosulfate heptahydrate; cobaltous sulfate
<u>CHEMICAL SHIPPING NAME/CLASS:</u>	Environmentally hazardous substance, solid, n.o.s., (Cobalt Sulfate), Class 9
<u>U.N. NUMBER:</u>	UN3077
<u>MANUFACTURER'S NAME:</u>	Various Manufacturers
<u>DISTRIBUTOR'S NAME:</u>	Hunter Chemical LLC
<u>ADDRESS:</u>	220 Commerce Drive, Suite 200, Fort Washington, PA 19034
<u>EMERGENCY PHONE:</u>	(800) 424-9300 (CHEMTREC)
<u>BUSINESS PHONE:</u>	(215) 461-1900
<u>DATE OF PREPARATION:</u>	December 27, 2010
<u>DATE OF REVISION:</u>	March 11, 2023
<u>DATE OF REVIEW:</u>	March 11, 2023

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

Product Description: This product is large irregular dark red transparent crystals with no odor.

Health Hazards: Harmful if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract. May cause nasal or lung damage. May cause allergic skin or respiratory reaction. Cancer hazard.

Flammability Hazards: Non-Flammable product.

Reactivity Hazards: This product is not reactive.

Environmental Hazards: Release of the product may cause adverse effects to the aquatic environment.

Emergency Recommendations: Emergency responders must have personal protective equipment and fire protection appropriate for the situation to which they are responding.

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE: This product meets the definition of a hazardous substance or preparation according to EU Regulations (EC) No 1272/2008.

INDEX NUMBER : EC# 233-334-2 Annex VI # 027-00-5-00-0

COMPONENT(S) DETERMINING HAZARD:

Cobalt Sulfate

GHS CLASSIFICATIONS:

Acute Oral Toxicity Category 4

Eye Irritation Category 2A

Resp. Sensitizer Category 1

Skin Sensitization Category 1

Germ Cell Mutagenicity Cat 2

Carcinogenicity Category 1

Reproductive Toxicity Category 1

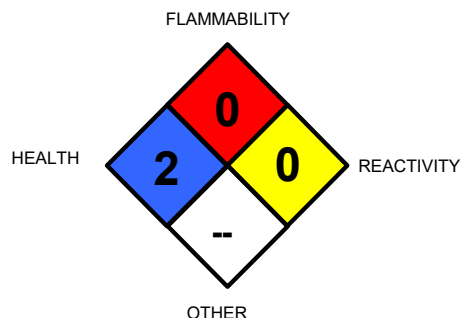
Aquatic Acute Category 1

Aquatic Chronic Category 1

SIGNAL WORD: DANGER



HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)		2	
FLAMMABILITY HAZARD (RED)		0	
REACTIVITY (YELLOW)		0	
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		SEE SECTION 8
For Routine Industrial Use and Handling Applications			



Scale: 0 = Minimal 1 = Slight 2 = Moderate
3 = Serious 4 = Severe * = Chronic hazard



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HAZARD STATEMENT:

- H302 Harmful if swallowed
H319 Causes serious eye irritation
H334 May cause allergy or breathing difficulties if inhaled
H317 May cause an allergic skin reaction
H341 Suspected of causing genetic defects
H350 May cause cancer
H361 Suspected of damaging fertility or the unborn child
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

PREVENTION STATEMENT:

- P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapor/spray.
P264 Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.

RESPONSE STATEMENT:

- P310 Immediately call a POISON CENTER/doctor if you feel unwell.
P363 Wash contaminated clothing before reuse
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 Rinse mouth.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P321 Specific Treatment (See Section 4 of this SDS).
P308 + P313 IF exposed or concerned: Get medical advice/attention
P333 + P313 IF skin irritation or rash occurs: Get medical advice/attention
P391 Collect spillage.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P362+P364 Take off immediately all contaminated clothing and wash it before reuse.

STORAGE STATEMENT:

- P405 Store locked up.

DISPOSAL STATEMENT:

- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

HEALTH EFFECTS OR RISKS FROM EXPOSURE:

ACUTE: Very hazardous in case of ingestion. Hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Slightly hazardous in case of skin contact (permeator).

CHRONIC: CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	Hazard Classification
Cobalt Sulfate	100%	10026-24-1	233-334-2	Acute Tox Cat 4 (Oral), Eye Irrit. Cat 2A Resp Sens Cat 1, Skin Sens Cat 1, Muta Cat 2, Carc Cat 1, Repr Cat 1, Aquatic Acute / Chronic Cat 1
Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).				



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4. FIRST-AID MEASURES

SKIN EXPOSURE: If this product contaminates the skin, begin decontamination with running water. Minimum flushing is for 5 minutes. Remove exposed or contaminated clothing, taking care not to contaminate eyes. The contaminated individual should seek medical attention.

EYE EXPOSURE: If this product enters the eyes, open contaminated individual's eyes while under gently running water. Use sufficient force to open eyelids. Remove contact lenses if worn. Have contaminated individual "roll" eyes. Minimum flushing is for 15 minutes. Cold water may be used. Do not use an eye ointment. Contaminated individual must seek immediate medical attention.

INHALATION: If dusts generated by this product are inhaled, remove contaminated individual to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention immediately.

INGESTION: Routine use of this product is not expected to cause any situation which could lead to ingestion. If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing skin disorders, asthma, allergies or known sensitization to chromic acid or chromates may be more susceptible to the effects of this material.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not Applicable

AUTOIGNITION TEMPERATURE: Not Applicable

FLAMMABLE LIMITS (in air by volume, %): Lower NA Upper NA

FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods below:

Water Spray: Yes

Carbon Dioxide: Yes

Foam: Yes

Dry Chemical: Yes

Halon: Yes

Other: Any "C" Class

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: No

SPECIAL FIRE-FIGHTING PROCEDURES: Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Proper protective equipment should be used. Stop the flow of material, if this can be done safely. Contain discharged material. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing dusts generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, ignition sources, moisture and incompatibilities. Wash hands before eating and do not eat, drink, or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
Cobalt compounds	10026-24-1	0.02 mg/m ³	0.1 mg/m ³

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use a chemical fume hood or local exhaust ventilation, and process enclosure if necessary, to control airborne dust. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or goggles are recommended. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

HAND PROTECTION: Use chemically-resistant gloves when handling this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use body protection appropriate for task (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE (Physical State) and COLOR: Large irregular dark red transparent crystals with no odor

ODOR: No odor

ODOR THRESHOLD: Not Applicable

pH: Not Available

MELTING/FREEZING POINT: 96.8°C (206.2°F)

BOILING POINT: 735°C (1355°F)

FLASH POINT: Not Applicable

EVAPORATION RATE (n-BuAc=1): Not Applicable

FLAMMABILITY (SOILD, GAS): Not Available

UPPER/LOWER FLAMMABILITY OR EXLOSION LIMITS: Not Available

VAPOR PRESSURE (mm Hg @ 20°C (68°F): Not Applicable

VAPOR DENSITY: Not Applicable

RELATIVE DENSITY: 2.03 @25C

SPECIFIC GRAVITY: 2.03

SOLUBILITY IN WATER: 60.4 g/100g water @3°C

PARTITION COEFFICENT (n-octanol/water): Not Available

AUTO-IGNITION TEMPERATURE: Not Applicable

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Applicable

10. STABILITY and REACTIVITY

STABILITY: Stable under ordinary conditions of use and storage.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of sulfur and the contained metal.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Strong oxidizers, tert-butyl hydroperoxide.

CONDITIONS TO AVOID: Incompatibles.



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11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

CAS# 10026-24-1

Acute oral toxicity (LD50): 582 mg/kg [Rat].

SUSPECTED CANCER AGENT: Ingredients within this product are found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be, or suspected to be, cancer-causing agents by these agencies.

Cobalt and its compounds have been shown to cause cancer in laboratory animals.

IRRITANCY OF PRODUCT: This product can be irritating to the skin, eyes, and respiratory system with prolonged contact.

SENSITIZATION TO THE PRODUCT: This product may cause allergic skin reactions (e.g., rashes, welts).

REPRODUCTIVE TOXICITY INFORMATION: No reports concerning the effects of this product and its components on the human reproductive system.

MUTAGENICITY INFORMATION: Considered a Germ Cell Mutagenicity hazard.

SINGLE TARGET ORGAN TOXICITY – SINGLE EXPOSURE: Data not sufficient for a classification.

SINGLE TARGET ORGAN TOXICITY – REPEATED EXPOSURE: Data not sufficient for a classification.

ASPIRATION HAZARD: Data not sufficient for a classification.

12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

TOXICITY:

No specific data available on this product.

PERSISTENCE AND DEGRADABILITY:

No specific data available on this product.

BIOACCUMULATIVE POTENTIAL:

No specific data available on this product.

MOBILITY IN SOIL:

No specific data available on this product.

RESULTS OF PBT AND vPvB ASSESSMENT:

No specific data available on this product.

ENDOCRINE DISRUPTING PROPERTIES:

No specific data available on this product.

OTHER ADVERSE EFFECTS:

No specific data available on this product.

WATER ENDANGERMENT CLASS:

No data available. At present there are no ecotoxicological assessments for this product.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

PROPER SHIPPING NAME: Environmentally hazardous substance, solid, n.o.s., (cobalt sulfate)

UN IDENTIFICATION NUMBER: UN3077

PACKING GROUP: III

DOT LABEL(S) REQUIRED: Class 9

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: 171

RQ QUANTITY:

MARINE POLLUTANT: The components of this product are not designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA): This product is considered as dangerous goods.

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is considered as dangerous goods.

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EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD
(ADR): This product is considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

SARA 313 Reporting: This material contains Cobalt sulfate heptahydrate (listed as Cobalt, inorganic compounds), 100%, (CAS# 10026-24-1) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Cobaltous Sulfate CAS#10026-24-1 1Lb.

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):



WARNING: This product can expose you to chemicals including cobalt which is known to the state of California to cause cancer. For more information go to www.P65warnings.ca.gov.

ADVERTENCIA: Este producto puede exponerlo a productos quimicos como el cobalto que es conocido por el estado de California para causar cancer. Para obtener mas informacion vaya a www.P65warnings.ca.gov

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Classified per WHMIS 2015.

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

EU LABELING AND CLASSIFICATION: This product meets the definition of the following hazard class as defined by the European Economic Community Guidelines.

EU CLASSIFICATION: See Section 2 for details.

AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Listed

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

Swiss Giftliste List of Toxic Substances: Listed

U.S. TSCA: Listed



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16. OTHER INFORMATION

PREPARED BY: Chris Eigbrett – (MSDS to GHS Compliance)
DATE OF PRINTING: March 11, 2023

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Hunter Chemical LLC assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Hunter Chemical LLC assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

Revision History:

March 11, 2023 - SDS Review / Update.

END OF SDS SHEET