

SAFETY DATA SHEET

Date Printed: 05/18/2024 Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifier: (2N) 99% Cobalt Trifluoromethanesulfonate

Product Code: CO-CFS-02

CAS Number: 58164-61-7

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 Fax: +1 310-208-0351 Emergency telephone number: +1 800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Skin corrosion(Category 1B), H314 Serious eye damage(Category 1), H318

GHS Label elements, including precautionary statements Pictogram



Signal word: Danger. Hazard statement(s): H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. Precautionary statement(s): P260 Do not breathe dust or mist. P264 Wash skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of contents/ container to an approved waste disposal plant. Hazards not otherwise classified (HNOC) or not covered by GHS-none

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance Name: Cobalt Trifluoromethanesulfonate CAS #: 58164-61-7 Formula: (C2F6O6CoS2)

SECTION 4. FIRST AID MEASURES

ORAL EXPOSURE If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. INHALATION EXPOSURE If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. DERMAL EXPOSURE In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician. EYE EXPOSURE In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5. FIREFIGHTING MEASURES

FLASH POINT N/A AUTOIGNITION TEMP N/A FLAMMABILITY N/A EXTINGUISHING MEDIA Suitable: Water spray. FIREFIGHTING Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

SECTION 6. ACCIDENTAL RELEASE MEASURES

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL Evacuate area. PROCEDURE(S) OF PERSONAL PRECAUTION(S) Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. METHODS FOR CLEANING UP Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

SECTION 7. HANDLING AND STORAGE

HANDLING User Exposure: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure. STORAGE Suitable: Keep tightly closed. SPECIAL REQUIREMENTS Hygroscopic.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Limits For Cobalt Compound -OSHA Permissible Exposure Limit (PEL):0.1 mg/m3 (TWA) Cobalt metal dust and fumes as Co. -ACGIH Threshold Limit Value (TLV): inorganic cobalt compounds:0.02mg/m3 (TWA) as Co A3: Animal Carcinogen

Thyroid effects on humans continue to be studied. Experimental tumorigenic effects have been reported for cobalt compounds. Cobalt compounds have insufficient data to be classified as a human carcinogen.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment Eyes: Wear chemical goggles Skin: Wear appropriate protective clothing to prevent skin exposure. Respirators: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Physical State: Solid Color: Pink Property Value At Temperature or Pressure Molecular Weight 357.07 pH N/A **BP/BP** Range N/A MP/MP Range N/A Freezing Point N/A Vapor Pressure N/A Vapor Density N/A Saturated Vapor Conc. N/A SG/Density N/A Bulk Density N/A Odor Threshold N/A Volatile% N/A VOC Content N/A Water Content N/A Solvent Content N/A Evaporation Rate N/A Viscosity N/A Surface Tension N/A Partition Coefficient N/A Decomposition Temp, N/A Flash Point N/A Explosion Limits N/A Flammability N/A Autoignition Temp N/A Refractive Index N/A **Optical Rotation N/A** Miscellaneous Data N/A Solubility very high N/A = not available

SECTION 10. STABILITY AND REACTIVITY

Conditions to be observed: Avoid strong heating Substanceds to be avoided: -Hazardous decomposition products: In the event of a fire, see section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Quantitative data on the toxicity of this product are not available. Further toxicological information If inhaled: irritation of the mucous membrane can occur, coughing and dyspnoea After skin and eye contact: irritation can occur.

SECTION 12. ECOLOGICAL INFORMATION

Not Available

SECTION 13. DISPOSAL CONSIDERATIONS

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

SECTION 14. TRANSPORT INFORMATION

UN 1759 Corrosive Solid, N.O.S. (Cobalt Trifluoromethanesulfonate) 8 PG II

SECTION 15. REGULATORY INFORMATION

EU ADDITIONAL CLASSIFICATION Symbol of Danger: C, XI Indication of Danger: Corrosive. R: 34 Risk Statements: Causes burns. R: 36/37/38 Irritating to the eyes , respiratory system and skin. Safety Phrases: S25 Avoid contact with eyes. S 36/37/38 Wear suitable protective clothing, gloves and eye/face protection.S45 In case of accident or if you feel unwell, seek medical advice immediately. (Show the label where possible) WGK (water/Danger/Protection)

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.