SAFETY DATA SHEET

Date Printed: 03/29/2024
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SECTION 1. IDENTIFICATION

Product Identifier: (2N) 99% Titanium(IV) Oxysulfate - Sulfuric Acid Solution

Product Code: TI-OXSAT-02-SOL

CAS Number: 13825-74-6

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)
Corrosive to metals (Category 1), H290
Skin corrosion (Category 1A), H314
Serious eye damage (Category 1), H318
For the full text of the H-Statements mentioned in this Section, see Section 16.
GHS Label elements, including precautionary statements
Pictogram



Signal word: Danger
Hazard statement(s)
H290
May be corrosive to metals.
H314
Causes severe skin burns and eye damage.
Precautionary statement(s)
P234
Keep only in original container.

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): Take off immediately all contaminated clothing.
Rinse skin with water/shower.
P304 + P340 + P310
IF INHALED: Remove person to fresh air and keep 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.
P390
Absorb spillage to prevent material damage.
P405
Store locked up.
P406
Store in corrosive resistant stainless steel container with a resistant inner liner.
P501
Dispose of contents/ container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: O5STi
Molecular weight: 159.93 g/mol
CAS-No.: 13825-74-6

SECTION 4. FIRST AID MEASURES

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
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Continue rinsing eyes during transport to hospital.
If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person.
Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2)

and/or in section 11
Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture
Sulphur oxides, Titanium/titanium oxides
Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
Further information
No data available

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
Evacuate personnel to safe areas.
For personal protection see section 8.
Environmental precautions
Do not let product enter drains.
Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
Reference to other sections
For disposal see section 13.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling
Avoid inhalation of vapor or mist.
For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510): Non-combustible, corrosive hazardous materials
Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment
Eye/face protection
Tightly fitting safety goggles. Faceshield (8-inch minimum). 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.
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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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).
Control of environmental exposure
Do not let product enter drains.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Appearance
Form: clear, liquid
Colour: colourless
Odor
No data available
Odor Threshold
No data available
pH
No data available
Melting point/freezing point
No data available
Initial boiling point and boiling range
100 °C (212 °F) at 1,013 hPa (760 mmHg)
Flash point
No data available
Evaporation rate
No data available
Flammability (solid, gas)
No data available
Upper/lower flammability or explosive limits
No data available
Vapor pressure
No data available
Vapor density
No data available
Relative density
1.361 g/cm3
Water solubility

No data available
Partition coefficient: n-octanol/water
No data available
Auto-ignition temperature
No data available
Decomposition temperature
No data available
Viscosity
No data available
Explosive properties
No data available
Oxidizing properties
No data available
Other safety information
No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available
Chemical stability
Stable under recommended storage conditions.
Possibility of hazardous reactions
No data available
Conditions to avoid
No data available
Incompatible materials
No data available
Hazardous decomposition products
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity
Dermal:
No data available
No data available
Skin corrosion/irritation
No data available
Serious eye damage/eye irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
IARC:
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP:
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity
No data available
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
Additional Information
RTECS:
Not available
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea
Stomach - Irregularities - Based on Human Evidence
Stomach - Irregularities - Based on Human Evidence (Sulfuric acid)

SECTION 12. ECOLOGICAL INFORMATION

Toxicity
No data available
Persistence and degradability:
No data available
Bioaccumulative potential:
No data available
Mobility in soil:
No data available
Results of PBT and vPvB assessment:
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging
Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT (US)
UN number: 3264
Class: 8
Packing group: II
Proper shipping name:
Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid, Titanium oxide sulphate)
Reportable Quantity
(RQ): 294 lbs
Poison Inhalation Hazard: No
IMDG
UN number: 3264
Class: 8
Packing group: II
EMS-No: F-A, S-B
Proper shipping name:
CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulfuric acid, Titanium oxide sulphate)
IATA
UN number: 3264
Class: 8
Packing group: II
Proper shipping name:
Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid, Titanium oxide sulphate)

SECTION 15. REGULATORY INFORMATION

SARA 302
Components
The following components are subject to reporting levels established by SARA Title III, Section 302:
Sulfuric acid
CAS-No. 7664-93-9
Revision Date 2007-07-01
SARA 313
Components
The following components are subject to reporting levels established by SARA Title III, Section 313:
Sulfuric acid
CAS-No. 7664-93-9
Revision Date 2007-07-01
SARA 311/312
Hazards
Acute Health Hazard, Chronic Health Hazard
Massachusetts Right To Know
Components
Sulfuric acid
CAS-No. 7664-93-9
Revision Date 2007-07-01
Pennsylvania Right To Know
Components
Water CAS-No. 7732-18-5
Revision Date 2007-07-01
Sulfuric acid 7664-93-9
Titanium oxide sulphate

13825-74-6
1994-07-31
New Jersey Right To Know
Components
Water CAS-No. 7732-18-5
Revision Date 2007-07-01
Sulfuric acid 7664-93-9
Titanium oxide sulphate 13825-74-6
1994-07-31
California Prop. 65
Components
WARNING! This product contains a chemical known to the State of California to cause cancer.
Sulfuric acid

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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.