

TCI AMERICA SAFETY DATA SHEET

Revision number: 1 Revision date: 11/09/2021

1. IDENTIFICATION

Product name: Vanadium(III) Chloride

Product code: V0172

Product use: For laboratory research purposes.

Restrictions on use: Not for drug or household use.

Company: TCI America

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Chemical Emergencies:

TCI America (8:00am - 5:00pm) PST

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Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.)

+1-703-527-3887 (International)
Responsible department:

TCI America

Environmental Health Safety and Security

+1-503-286-7624

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: Acute Toxicity - Oral [Category 4]

WHMIS 2015: Skin Corrosion/Irritation [Category 1B] Eye Damage/Irritation [Category 1]

Specific Target Organ Toxicity (Single Exposure) [Category 1] Specific Target Organ Toxicity (Repeated Exposure) [Category 1]

Aquatic Hazard (Acute) [Category 3] Aquatic Hazard (Long-Term) [Category 3]

Signal word: Danger!

Hazard Statement(s): Harmful if swallowed

Causes severe skin burns and eye damage

Harmful to aquatic life

Harmful to aquatic life with long lasting effects Causes damage to: Respiratory System

Causes damage to organs through prolonged or repeated exposure: Respiratory System

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep only in original container. Do not breathe dust, fume, mist, vapors or spray. Avoid

release to the environment. Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Wear protective gloves, protective clothing, face protection.

[Response] If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

Immediately call a poison center or doctor. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor. 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. If exposed: Call a poison

center or doctor. Absorb spillage to prevent material damage.

Store in corrosive resistant bottle or metal container with a resistant inner liner. Store locked up.

Dispose of contents and container in accordance with local, regional, national regulations (e.g. US: 40

CFR Part 261, EU:91/156/EEC, JP: Waste Disposal and Cleaning Act, etc.).

Hazards not otherwise classified: [HNOC]

[Storage] [Disposal]

None.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

Vanadium(III) Chloride Components:

Percent:

7718-98-1 CAS RN: Molecular Weight: 157.29 **Chemical Formula:** VCI₃

Synonyms: Vanadium Trichloride

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a

POISON CENTER or doctor/physician.

Skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water.

Immediately call a POISON CENTER or doctor/physician.

Eye contact: 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.

Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting. Ingestion:

Symptoms/effects:

No data available Acute: Delayed: No data available

Indication of any immediate medical attention:

Not available.

Notes to physician: No data available

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, carbon dioxide.

Unsuitable extinguishing media: Water

Specific hazards arising from the

chemical:

None

Hazardous combustion products:

Other specific hazards: Closed containers may explode from heat of a fire.

Advice for firefighters: Wear self-contained breathing apparatus if possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Environmental precautions: Methods and materials for containment

Prevention of secondary hazards:

and cleaning up:

Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc. Prevent product from entering drains. Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected

material should be promptly disposed of, in accordance with appropriate laws and regulations. Do not allow contact with water. Remove all sources of ignition. Fire-extinguishing devices should be

Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.

prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE

Precautions for safe handling: Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent

dispersion of dust. Wash hands and face thoroughly after handling.

Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated.

Avoid all contact!

Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed. Store in a cool and dark place.

> Store under inert gas. Protect from moisture. Store locked up. Store away from incompatible materials such as oxidizing agents.

Hygroscopic

Packaging material: Comply with laws. Keep only in original container. Vanadium(III) Chloride **TCI AMERICA** Page 3 of 5

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Follow safe industrial engineering/laboratory practices when handling any chemical. Install a closed Appropriate engineering controls:

system or local exhaust. Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection: Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators

approved under appropriate government standards and follow local and national regulations.

Hand protection: Impervious gloves.

Safety goggles. A face-shield, if the situation requires. Eye protection:

Skin and body protection: Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Solid Colour: Purple

No data available Odour-Odor threshold: No data available **Odour threshold:** No data available

Melting point/freezing point: 250°C

Boiling point/range: No data available No data available **Decomposition temperature:** Relative density: No data available No data available Kinematic viscosity:

Log Pow: No data available

Evaporation rate(Butyl

Acetate=1):

No data available Flash point:

Flammability(solid, gas): No data available Autoignition temperature:

Vapour pressure:

Dynamic Viscosity:

Vapour density:

Flammability or explosive limits:

No data available Lower:

Upper: No data available

No data available

No data available.

No data available

No data available

No data available

No data available

Solubility(ies):

No data available [Water] [Other solvents] No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under proper conditions.

Possibility of hazardous reactions: No special reactivity has been reported.

Conditions to avoid: Moisture

Incompatible materials: Oxidizing agents Hazardous decomposition products: Hydrogen chloride Vanadium(III) Chloride **TCI AMERICA** Page 4 of 5

11. TOXICOLOGICAL INFORMATION

RTECS Number: YW2800000

Acute Toxicity:

orl-rat LD50:350 mg/kg scu-mus LD50:30 mg/kg

ipr-mus LD50:29 mg/kg

Skin corrosion/irritation:

No data available

Serious eye damage/irritation:

No data available

Respiratory or skin sensitization:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity:

No data available

IARC: No data available NTP: No data available OSHA: No data available

Reproductive toxicity:

No data available

Target organ(s):

Causes damage to: Respiratory System

Causes damage to organs through prolonged or repeated exposure: Respiratory System

12. ECOLOGICAL INFORMATION

Ecotoxicity:

No data available Fish: Crustacea: No data available

Algae: 72h EC50:17 mg/L (Selenastrum capricornutum)

Persistence / degradability: Bioaccumulative potential(BCF): No data available

Mobility in soil

No data available

No data available Log Pow: No data available Soil adsorption (Koc): Henry's Law (PaM 3/mol): No data available

13. DISPOSAL CONSIDERATIONS

Disposal of product: Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and

> Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for

> Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not

be allowed to enter the environment, drains, water ways, or the soil.

Disposal of container: Dispose of as unused product. Do not re-use empty containers.

Other considerations: Observe all federal, state and local regulations when disposing of the substance. Vanadium(III) Chloride TCI AMERICA Page 5 of 5

14. TRANSPORT INFORMATION

DOT (US)

UN number: Proper Shipping Name: Class or Division: Packing Group:

UN2475 Vanadium trichloride 8 Corrosive material

<u>IATA</u>

UN number: Proper Shipping Name: Class or Division: Packing Group:

UN2475 Vanadium trichloride 8 Corrosive material II

<u>IMDG</u>

UN UN2475 Proper Shipping Name: Class or Division: Packing Group:

numb Vanadium trichloride 8 Corrosive material III

er:

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

- (i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.
- (ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

US Federal Regulations

CERCLA Hazardous substance and Reportable Quantity: SARA 313: Not Listed

SARA 302: Not Listed

State Regulations
State Right-to-Know

Massachusetts
New Jersey
Pennsylvania
California Proposition 65:
Not Listed
Not Listed
Not Listed

Other Information

NFPA Rating:HMIS Classification:Health:3Health:4Flammability:0Flammability:0Instability:0Physical:2

International Inventories

Canada: NDSL On NDSL EC-No: 231-744-6

16. OTHER INFORMATION

Revision date: 11/09/2021 Revision number: 1

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.