Material Safety Data Sheet
Vanadium(III) chloride

MSDS# 43898

Section 1 - Chemical Product and Company Identification

MSDS Name: Vanadium(III) chloride
Catalog Numbers: AC197000000, AC197000250, AC197001000
Synonyms: Vanadium trichloride.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaalaaan 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 7718-98-1
Chemical Name: Vanadium trichloride
%: 97
EINECS#: 231-744-6

Hazard Symbols: C
Risk Phrases: 14 22 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Danger! Harmful if swallowed. Causes burns by all exposure routes. Reacts violently with water. Target Organs: Respiratory system, gastrointestinal system, eyes, skin.

Potential Health Effects
Eye: Causes eye burns.
Skin: Causes skin burns.
Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns.
Inhalation: Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.
Chronic: No information found.

Section 4 - First Aid Measures
Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower
eyelids. Get medical aid immediately.

**Skin:**
Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:**
Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation:**
Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Notes to Physician:**

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### Section 5 - Fire Fighting Measures

**General Information:**
Will react with water to form toxic and corrosive fumes. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

**Extinguishing Media:**
Do NOT use water directly on fire. Use foam, dry chemical, or carbon dioxide.

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<th>Autoignition Temperature:</th>
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<tbody>
<tr>
<td>Flash Point:</td>
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<th>Explosion Limits:</th>
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<td>Lower:</td>
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<table>
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<th>Explosion Limits:</th>
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<td>Upper:</td>
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<td>Not available</td>
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**NFPA Rating:** ; Special Hazard: -W-

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### Section 6 - Accidental Release Measures

**General Information:**
Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**
Vacuum or sweep up material and place into a suitable disposal container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Avoid generating dusty conditions. Provide ventilation. Do not let this chemical enter the environment.

**Section 7 - Handling and Storage**

Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale.

**Handling:**
Do not allow contact with water. Use only in a chemical fume hood. Do not use with metal spatula or other metal items.

**Storage:**

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### Section 8 - Exposure Controls, Personal Protection

**OSHA Vacated PELs:** Vanadium trichloride: None listed

**Engineering Controls:**
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

**Exposure Limits**

**Personal Protective Equipment**

**Eyes:**
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:**
Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**
Wear appropriate protective clothing to prevent skin exposure.
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a Respirators: NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Powder
Color: purple - pink
Odor: Not available
pH: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: 250 deg C (decom)

Decomposition Temperature:
Solubility in water: Reacts
Specific Gravity/Density: 3.0000 g/cm³
Molecular Formula: Cl₃V
Molecular Weight: 157.30

Section 10 - Stability and Reactivity

Chemical Stability: Decomposes when heated. Decomposes on exposure to air and light. Reacts violently with water.

Conditions to Avoid: Incompatible materials, light, dust generation, excess heat, exposure to moist air or water.

Incompatibilities with Other Materials: Water, metals, strong oxidizing agents.

Hazardous Decomposition Products: Hydrogen chloride, carbon monoxide, carbon dioxide, vanadium oxide (VOx) gases.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7718-98-1: YW2800000
RTECS:
LD50/LC50: CAS# 7718-98-1: Oral, mouse: LD50 = 24 mg/kg;
Oral, rat: LD50 = 350 mg/kg;

Carcinogenicity: Vanadium trichloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: VANADIUM TRICHLORIDE
Hazard Class: 8
UN Number: UN2475
Packing Group: III
Canada TDG
Shipping Name: Not available
Hazard Class:
Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:
- R 14 Reacts violently with water.
- R 22 Harmful if swallowed.
- R 34 Causes burns.

Safety Phrases:
- S 6A Keep under nitrogen.
- S 7/8 Keep container tightly closed and dry.
- S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S 43B In case of fire, use fire-fighting equipment on basis of sodium chloride, sodium bicarbonate (never use water).
- S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 7718-98-1: Not available

Canada

CAS# 7718-98-1 is listed on Canada's NDSL List

Canadian WHMIS Classifications: E, D1B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7718-98-1 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 7718-98-1 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997
Revision #6 Date 7/20/2009

Reviewed 2013.05.10 '00'04- 15:13:08

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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