### SECTION 1  PRODUCT AND COMPANY INFORMATION

**PRODUCT NAME:** Vanadium (III) Chloride  
**PRODUCT NUMBER:** 3769  
**CAS NUMBER:** 7718-98-1  
**SYNONYMS:** Vanadium trichloride  
**MANUFACTURER:** Prochem, Inc.  
**PHONE:** 815-398-1788  
**FAX:** 815-398-1810  
**TOLL FREE:** 800-795-8788

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

### SECTION 2  HAZARDS IDENTIFICATION

**CLASSIFICATION OF SUBSTANCE OR MIXTURE**

- **Pictogram:**  
- **Signal Word:** Danger

**Hazard Statements**

- H302 Harmful if swallowed  
- H314 Causes severe skin burns and eye damage.

**Precautionary Phrases**

- P260 Do not breathe dust or mist.  
- P264 Wash skin thoroughly after handling.  
- P270 Do not eat, drink, or smoke when using this product.  
- P280 Wear protective gloves/protective clothing/eye protection/face protection  
- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
- 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 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
- P363 Wash contaminated clothing before reuse  
- P501 Dispose of contents/container to an approved waste disposal plant.
SECTION 2  HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:
Health: 3  Fire: 0  Reactivity Hazard: 0

NFPA RATING:
Health: 3  Flammability: 0  Reactivity Hazard: 0

EYE CONTACT: Causes serious eye damage
SKIN CONTACT: Very harmful if absorbed through the skin. Causes severe skin burns
INHALATION: May be harmful if inhaled. Causes respiratory tract irritation.
INGESTION: Harmful if swallowed. May lead to the perforation of esophagus and stomach due to the corrosive effects of this chemical.

SECTION 3  COMPOSITION / INFORMATION ON INGREDIENTS

Formula: VCl₃
Molecular Weight: 157.3

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
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<tbody>
<tr>
<td>Vanadium (III) Chloride</td>
<td>7718-98-1</td>
<td>100</td>
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</table>

SECTION 4  FIRST AID MEASURES

EYE EXPOSURE: In case of eye contact, rinse with plenty of water and seek medical attention if necessary.
SKIN EXPOSURE: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.
INGESTION: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention if necessary.

SECTION 5  FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable
AUTO IGNITION TEMPERATURE: Not available
EXPLOSION LIMITS: Not available
EXTINGUISHING MEDIUM: Use appropriate media for adjacent fire. Cool containers with water.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Hydrogen chloride gas and vanadium oxides.

SECTION 6  ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.
ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Neutralize spill. Pick up and arrange disposal without creating dust. Sweep up and keep in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

SECTION 7  HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts and aerosols.
CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Keep away from incompatible materials. This product is moisture and light sensitive. Store this product under dry protective gas.
SECTION 8   EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limits</th>
<th>Basis</th>
<th>Entity</th>
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<tr>
<td>Vanadium Trichloride</td>
<td>0.05 mg/m³</td>
<td>REL</td>
<td>NIOSH</td>
</tr>
</tbody>
</table>

REL: Recommended Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.
SKIN PROTECTION: Wear nitrile or rubber gloves, apron, or lab coat.
VENTILATION: Provide local exhaust, preferably mechanical.
RESPIRATOR: Use an approved respirator
ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9   PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Pink-Purple free flowing crystalline powder
ODOR: Acrid
MOLECULAR WEIGHT: 157.3
BOILING POINT: Disproportionates at 300-400°C
MELTING POINT: >300°C (dec.)
SPECIFIC GRAVITY: 3.00 gm/ml
VAPOR DENSITY: No data available
SOLUBILITY: Soluble

SECTION 10   STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Excess heat and flames.
INCOMPATIBILITY: Oxidizing agents, water/moisture, and light
DECOMPOSITION PRODUCTS: Hydrogen Chloride and Vanadium oxides.

SECTION 11   TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – 350 mg/kg
CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.
MUTAGENIC EFFECTS: Not available
TETRATOGENIC EFFECTS: Not available
RTECS: YW2800000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12   ECOLOGICAL DATA

No data available.

SECTION 13   DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.
SECTION 14 TRANSPORTATION DATA

UN2475
Vanadium trichloride
CLASS 8
PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory
DSCL (EEC): Listed on the DSCL inventory
SARA 302/304: Not Listed
SARA 311/312: Acute Health Hazard
SARA (TITLE 313): Vanadium trichloride
CALIFORNIA PROP. 65: Not Listed
WHMIS CANADA: Class D-2B: Toxic material causing other toxic effects. Class E: Corrosive material.

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 07/14