

# MATERIAL SAFETY DATA SHEET

Manufacturer: Strem Chemicals, Inc  
 7 Mulliken Way  
 Newburyport, MA 01950-4098 U.S.A.  
 www.strem.com

Strem Customer Service (978) 499-1600  
 CHEMTREC (Emergency Only) (800) 424-9300  
 Poison Center (800) 562-8236

<b>Section 1: Product Identification</b>	
Chemical Name:	Vanadium (V) trichloride oxide, min. 99%
Product Number:	93-2305
CAS Registry Number:	7727-18-6
Formula:	VOCl <sub>3</sub>
EINECS Number:	231-780-2
Chemical Family:	metal oxyhalide
Synonym:	Trichlorooxovanadium, Vanadium monoxide trichloride, Vanadyl trichloride

<b>Section 2: Composition and Information on Ingredients</b>				
Ingredient	CAS Number	Percent	ACGIH (TWA)	OSHA (PEL)
Title Compound	7727-18-6	100%	no data	no data

<b>Section 3: Hazards Identification</b>	
Emergency Overview:	Toxic if swallowed. Corrosive to skin and eyes. Material hydrolyzes in contact with moisture releasing toxic and corrosive fumes of hydrogen chloride and aqueous hydrochloric acid.
Primary Routes of Exposure:	Ingestion, inhalation, skin, eyes
Eye Contact:	Causes burns to the eyes.
Skin Contact:	Causes burns to the skin.
Inhalation:	Forms hydrogen chloride in the presence of moisture. Inhalation will lead to caustic burns to the respiratory tract.
Ingestion:	Toxic if swallowed. Ingestion is unlikely due to pungent choking odor.
Acute Health Affects:	Toxic if swallowed. Corrosive to skin, eyes and respiratory tract. Causes eye, skin burns, dyspnea (breathing difficulty), and pulmonary edema
Chronic Health Affects:	No information available on long-term chronic effects.
NTP:	No
IARC:	No
OSHA:	No

<b>SECTION 4: First Aid Measures</b>	
Eye Exposure:	Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.
Skin Exposure:	Wash the affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.
Inhalation:	Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.
Ingestion:	Seek medical attention immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

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**SECTION 5: Fire Fighting Measures**

Flash Point: not applicable  
Autoignition Temperature: none  
Explosion Limits: none  
Extinguishing Medium: None. Material is non-flammable.  
Special Fire Fighting Procedures: If this product is involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.  
Hazardous Combustion and Decomposition Products: If involved in a fire this material may emit toxic fumes of hydrogen chloride.  
Unusual Fire or Explosion Hazards: No unusual fire or explosion hazards.

**SECTION 6: Accidental Release Measures**

Spill and Leak Procedures: Small spills can be adsorbed into and neutralized with powdered sodium bicarbonate, lime, or calcium carbonate and swept up. Avoid raising dust.

**SECTION 7: Handling and Storage**

Handling and Storage: Store liquid in a tightly sealed container away from moisture. Handle in a fume hood under a dry atmosphere of air or nitrogen. Exposure to the atmosphere may degrade the product.

**SECTION 8: Exposure Controls and Personal Protection**

Eye Protection: Always wear approved safety glasses when handling a chemical substance in the laboratory.  
Skin Protection: Wear protective clothing and gloves. Consult with glove manufacturer to determine the proper type of glove.  
Ventilation: The liquid may form a corrosive vapor. It should only be handled in an efficient fume hood.  
Respirator: If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 1910.134.  
Ventilation: The liquid may form a corrosive vapor. It should only be handled in an efficient fume hood.  
Additional Protection: No additional protection required.

**SECTION 9: Physical and Chemical Properties**

Color and Form: orange liq.  
Molecular Weight: 173.3  
Melting Point: -77°  
Boiling Point: 126.7°C  
Vapor Pressure: no data  
Specific Gravity: 1.829  
Odor: pungent odor  
Solubility in Water: reacts with water

**SECTION 10: Stability and Reactivity**

Stability: moisture sensitive  
Hazardous Polymerization: no hazardous polymerization  
Conditions to Avoid: contact with moisture  
Incompatibility: finely divided metals, reducing agents, hydrazine, alcohols and strong acids  
Decomposition Products: Vanadium oxide, hydrogen chloride

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**SECTION 11: Toxicological Information**

RTECS Data: Oral (rat) LD50: 140 mg/kg.  
Carcinogenic Effects: no data  
Mutagenic Effects: no data  
Tetratogenic Effects: no data

**SECTION 12: Ecological Information**

Ecological Information: No information available

**SECTION 13: Disposal Considerations**

Disposal: Dispose of according to local, state and federal regulations.

**SECTION 14: Transportation**

Shipping Name (CFR): Vanadium oxytrichloride  
Hazard Class (CFR): 8  
Additional Hazard Class (CFR): NA  
Packaging Group (CFR): II  
UN ID Number (CFR): UN# 2443  
Shipping Name (IATA): Vanadium oxytrichloride  
Hazard Class (IATA): 8  
Additional Hazard Class (IATA): NA  
Packaging Group (IATA): II  
UN ID Number (IATA): UN# 2443

**SECTION 15: Regulatory Information**

TSCA: Listed in the TSCA inventory.  
SARA (Title 313): See Category code N770 for reporting.  
Second Ingredient: none  
Third Ingredient: none

**SECTION 16: Other Information**

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