

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: VANADYL  
SULPHATE (Pentahydrate)

CAS#: - 27774-13-6

Synonym: Not available.

Chemical Name: Not available.

Chemical Formula: VOSO<sub>4</sub>.xH<sub>2</sub>O

## Composition and Information on Ingredients

Name	S.K.U	% by Weight
Vanadyl sulfate	GCS-7284	100

## Hazards Identification

### Potential Acute Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Slightly hazardous in case of inhalation.

### Potential Chronic Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion. Slightly hazardous in case of inhalation. CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

## First Aid Measures

**Eye Contact:** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

**Skin Contact:** After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.

**Serious Skin Contact:** Wash with a disinfectant soap and cover the contaminated skin with an anti- bacterial cream. Seek medical attention.

**Inhalation:** Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion: Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

## Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Not applicable.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not applicable.

## Accidental Release Measures

Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:

Use a shovel to put the material i006Eto a convenient waste disposal container.

## Handling and Storage

### Precautions:

Do not ingest. Do not breathe dust. Wear suitable protective clothing If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes

### Storage:

No specific storage is required. Use shelves or cabinets sturdy enough to bear the weight of the chemicals. Be sure that it is not necessary to strain to reach materials, and that shelves are not overloaded.

## Exposure Controls/Personal Protection

### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

## Physical and Chemical Properties

Physical state and appearance:	Solid. (Crystalline solid.)
Odor:	Not available.
Taste:	Not available.
Molecular Weight:	163.01 g/mole
Color:	Blue. (Light.)
pH (1% soln/water):	Not available.
Boiling Point:	Not available.
Melting Point:	Decomposes.
Critical Temperature:	Not available.
Specific Gravity:	3 (Water = 1)
Vapor Pressure:	Not applicable.
Vapor Density:	Not available.
Volatility:	Not available.
Odor Threshold:	Not available.
Water/Oil Dist. Coeff.:	Not available.
Ionicity (in Water):	Not available.
Dispersion Properties:	See solubility in water.
Solubility:	Soluble in cold water.

## Stability and Reactivity Data

Stability: The product is stable.  
 Instability Temperature:

Not available. Conditions of Instability:

Not available. Incompatibility with various substances: Not available.

Corrosivity:	Non-corrosive in presence of glass.
Special Remarks on Reactivity: Not available. Special Remarks on Corrosivity: Not available.	
Polymerization:	No.

### Toxicological Information

Routes of Entry: Eye contact. Ingestion.  
Toxicity to Animals: Acute oral toxicity (LD50): 4450 mg/kg [Rat].  
Chronic Effects on Humans: Not available.  
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion.  
Slightly hazardous in case of inhalation.  
Special Remarks on Toxicity to Animals: Not available.  
Special Remarks on Chronic Effects on Humans: Not available.  
Special Remarks on other Toxic Effects on Humans: Not available

**Toxicological Data on Ingredients:**

Vanadyl sulfate: ORAL (LD50): Acute: 4450 mg/kg [Rat].

### Ecological Information

Ecotoxicity: Not available.  
BOD5 and COD: Not available.  
Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.  
Toxicity of the Products of Biodegradation: The products of degradation are more toxic.  
Special Remarks on the Products of Biodegradation: Not available.

### Disposal Considerations

**Waste Disposal:**

### Transformation Information

Land transport (ADR-RID)  
General information: Not regulated.

Sea transport (IMDG) [English only]  
General information: Not regulated.

Air transport (ICAO-IATA) [English only]  
General information: Not regulated.

## Other Regulatory Information

### Federal and State Regulations:

Pennsylvania RTK: Vanadyl sulfate Massachusetts RTK: Vanadyl sulfate TSCA 8(b) inventory: Vanadyl sulfate CERCLA: Hazardous substances. Vanadyl sulfate

### Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

### Other Classifications:

WHMIS (Canada): CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).

DSCL (EEC): R36/38- Irritating to eyes and skin.

### HMIS (U.S.A.):

Health Hazard: 2

### Fire Hazard: 0

Reactivity: 0

### Personal Protection: E

National Fire Protection Association (U.S.A.):

### Health: 2

Flammability: 0

### Reactivity: 0

Specific hazard:

### Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

## Additional Information



References: Not available.

Other Special Considerations: Not available.

## ***Disclaimer:***

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