

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

**Section 1: Product Identification**

Chemical Name: Iodine (V) oxide, 99%  
Product Number: 93-5302  
CAS Registry Number: 12029-98-0  
Formula: I2O5  
EINECS Number: 234-740-2  
Chemical Family: halogen oxide  
Synonym: Iodic acid, anhydride

**Section 2: Composition and Information on Ingredients**

Ingredient	CAS Number	Percent	ACGIH (TWA)	OSHA (PEL)
Title compound	12029-98-0	100%	no data	no data

**Section 3: Hazards Identification**

Emergency Overview: Severe irritant to skin, eyes and mucous membranes. Prolonged exposure to iodides may cause skin rash with boils, blisters, pimples or hives. Iodides are readily diffused across the placenta.

Primary Routes of Exposure: Ingestion, inhalation, skin, eyes.

Eye Contact: Severely irritating to eyes. May cause permanent damage or complete vision loss.

Skin Contact: Causes moderate irritation of the skin.

Inhalation: Irritating to the nose, mucous membranes and respiratory tract.

Ingestion: Irritating to mouth, throat and stomach. May cause dizziness, vomiting, pain and stomach upset.

Acute Health Affects: Irritant to skin, eyes and mucous membranes. Inhalation causes inflammation, edema and chemical pneumonitis. Ingestion causes irritation to the mouth, throat and esophagus.

Chronic Health Affects: Prolonged exposure to iodides may cause skin rash with boils, blisters, pimples and/or hives. Iodides are readily diffused across the placenta.

NTP: No  
IARC: No  
OSHA: No

**SECTION 4: First Aid Measures**

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 immediately with water. Remove contaminated clothing 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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<b>SECTION 5: Fire Fighting Measures</b>	
Flash Point:	not applicable
Autoignition Temperature:	not applicable
Explosion Limits:	not applicable
Extinguishing Medium:	carbon dioxide, foam or dry powder
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 toxic fumes of iodine may form.
Unusual Fire or Explosion Hazards:	Oxidizer. May decompose explosively under fire fighting conditions if mixed with combustibles.

<b>SECTION 6: Accidental Release Measures</b>	
Spill and Leak Procedures:	Sweep up the solid and dispose of properly.

<b>SECTION 7: Handling and Storage</b>	
Handling and Storage:	Store the material in a tightly sealed container in a cool, dry place.

<b>SECTION 8: Exposure Controls and Personal Protection</b>	
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:	To minimize exposure, handle the material in an efficient fume hood.
Respirator:	If 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:	To minimize exposure, handle the material in an efficient fume hood.
Additional Protection:	No additional protection required.

<b>SECTION 9: Physical and Chemical Properties</b>	
Color and Form:	white powder
Molecular Weight:	333.81
Melting Point:	300-350°
Boiling Point:	no data
Vapor Pressure:	no data
Specific Gravity:	4.799
Odor:	not determined
Solubility in Water:	9g/100cc (20°C)

<b>SECTION 10: Stability and Reactivity</b>	
Stability:	air stable, hygroscopic
Hazardous Polymerization:	no hazardous polymerization
Conditions to Avoid:	may burst into flame or explode in contact with organic matter in the presence of heat or friction.
Incompatibility:	reducing agents, organic matter, active metal, phosphorus and sulfur
Decomposition Products:	iodine oxide fumes

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**SECTION 11: Toxicological Information**

RTECS Data: No information available in the RTECS files.  
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): Oxidizing solid, N.O.S.  
Hazard Class (CFR): 5.1  
Additional Hazard Class (CFR): NA  
Packaging Group (CFR): III  
UN ID Number (CFR): UN# 1479  
Shipping Name (IATA): Oxidizing solid, N.O.S.  
Hazard Class (IATA): 5.1  
Additional Hazard Class (IATA): NA  
Packaging Group (IATA): III  
UN ID Number (IATA): UN# 1479

**SECTION 15: Regulatory Information**

TSCA: Listed in the TSCA inventory.  
SARA (Title 313): Title compound not listed.  
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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