

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND CONTACT INFORMATION

Product Name: Schutze Reagent

AR 611

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS NO.	%W	CHEMICAL NAMES	OSHA PEL (mg/m3)	ACGIH TLV (mg/m3)
63231-67-4	<70	Silica Gel	6	10
12029-98-0	>20	Iodine Pentoxide	Not Estab.	Not Estab.
7664-93-9	>10	Sulfuric Acid	1	1

## 3. HAZARD IDENTIFICATION

### POTENTIAL HEALTH EFFECTS

**EYES:** Silica Gel can cause irritation; Iodine Pentoxide or sulfuric acid can cause severe irritation or burns.

**SKIN:** Drying action of silica can cause irritation of the skin. Iodine Pentoxide or sulfuric acid can cause severe irritation or burns.

**INHALATION:** Avoid prolonged breathing of silica dust. The drying action of silica can cause irritation of the nose and mouth. Iodine Pentoxide can cause irritation of the upper respiratory tract. Inhalation of sulfuric acid can cause severe irritation or burns of respiratory system, pulmonary edema and lung inflammation.

**INGESTION:** Can cause nausea, vomiting, severe burns to mouth, throat, and stomach and may cause kidney dysfunction.

**CHRONIC OVEREXPOSURE:** Chronic inhalation may cause lung damage

**ACUTE OVEREXPOSURE:** see above.

**MEDICAL CONDITIONS AGGRAVATED:** inhalation may aggravate respiratory system disease.

**CARCINOGENICITY:** None.

## 4. FIRST AID MEASURES

**EYES:** Flush with large amounts of water, occasionally lifting upper and lower eye lids for at least 15 minutes. If irritation occurs and persists, seek medical attention. .

**INHALATION:** Removed from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

**SKIN:** Wash skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**INGESTION:** CALL A PHYSICIAN. If swallowed, do not induce vomiting. If conscious, give large amounts of water.

## **5. FIRE FIGHTING MEASURES**

### **FLAMMABLE PROPERTIES**

Non-flammable

Flash Point: N/A

Flammable Limits: (% by Volume in Air): Lower: None Upper: None

AUTO-IGNITION TEMPERATURE: N/A

HAZARDOUS COMBUSTION PRODUCTS: Iodine Pentoxide emits iodine and highly toxic and irritating fumes. Sulfuric acid emits sulfur dioxide and hydrogen.

EXTINGUISHING MEDIA: Use dry chemical or carbon dioxide.

FIREFIGHTING INSTRUCTIONS: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool. Do not get water inside containers. Iodine Pentoxide is a strong oxidizer. Contact with combustible materials, flammable material or powdered metals can cause fire or explosion. A violent exothermic reaction occurs with water. Sufficient heat may be generated to ignite combustible materials.

## **6. ACCIDENTAL RELEASE MEASURES**

SMALL/LARGE SPILL: Wear self-contained breathing apparatus and full protective clothing. Stop leak if you can without risk. Do not use water. Keep combustibles (wood, paper, oil, etc) away from spilled material. With a clean shovel, carefully place into clean, dry container and cover; remove from area.

## **7. HANDLING AND STORAGE**

HANDLING: Keep from contact with clothing and other combustible materials. Do not get in eyes, on skin or on clothing. Avoid breathing dust. Use adequate ventilation. Wash thoroughly after handling.

STORAGE: Keep container closed. Do not store near flammable or combustible materials.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

ENGINEERING CONTROLS: use general or local exhaust ventilation to keep fume/dust levels as low as possible.

RESPIRATORY PROTECTION: If airborne concentration is high, a dust/mist respirator is recommended. If concentration exceeds capacity of respirator, a self-contained breathing apparatus is advised.

SKIN AND HAND PROTECTION: Wear apron and proper gloves.

EYE AND FACE PROTECTION: Chemical safety glasses or goggles.

OTHER PROTECTIVE EQUIPMENT: N/A.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE: yellow granules

BOILING POINT: N/A

FREEZE-MELT POINT: N/A

VAPOR PRESSURE: N/A

VAPOR DENSITY: N/A

SOLUBILITY IN WATER: slightly soluble

SPECIFIC GRAVITY: N/A

pH: N/A  
ODOR: None  
PERCENT VOLATILES: N/A  
EVAORATION RATE: N/A

## 10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

INCOMPATIBILITY: Silica Gel reacts with hydrofluoric acid. Iodine Pentoxide reacts with light, moisture, organic materials, strong reducing agents and combustible materials. Sulfuric acid is incompatible with moisture, heat, water, most common metals, organic materials, strong bases, carbonates, sulfides, cyanides, strong oxidizing agents and carbides.

HAZARDOUS DECOMPOSITION PRODUCTS: Iodine Pentoxide can release Iodine. Sulfuric acid can release oxides of sulfur and hydrogen.

HAZARDOUS POLYMERIZATION: None.

## 11. TOXICOLOGICAL INFORMATION

None Found.

## 12. ECOLOGICAL INFORMATION

None available.

## 13. DISPOSAL CONSIDERATION

Dispose of according to federal, state and local environmental regulations. Cover promptly to avoid blowing or dust.

## 14. TRANSPORTATION INFORMATION

USA DOT: Shipping Name: Oxidizing Solid, Corrosive, N.O.S. (Iodine Pentoxide 20%, Sulfuric Acid 10%), 5.1 (Oxidizer), Subrid. Risk 8, (Corrosive), UN3085, PG III

## 15. REGULATORY INFORMATION

### US FEDERAL REGULATIONS

TSCA STATUS: On toxic Substance Control Inventory

CERCLA Reportable Quantity: Sulfuric Acid = 1,000 lbs

RCRA Status: Iodine Pentoxide and Sulfuric Acid: D002, D003 (Corrosive, Reactive Waste)

SARA TITLE III:

Section 302 Extremely Hazardous Substances: Sulfuric Acid

Section 311/312 Hazardous Categories: Acute, Chronic Reactivity

Section 313 Toxic Chemicals: Sulfuric Acid

### CANADAIN REGULATIONS

WHMIS: C, E

RISK PHRASES: R-35 – Causes severe burns.

SAFETY PHRASES: S2 – Keep out of reach of children.

S26 – In case of contact with eyes, rinse immediately with water and seek medical advice.

S28 – In case of contact with kin, wash immediately with baking soda and water.

S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.

S45 – In case of accident or if you feel unwell, seek medical advise immediately.

S53 – Avoid exposure – obtain special instructions before use.

## **16. OTHER INFORMATION**

**HAZARD INDEX; (1 – 4, 4 = Extreme)**

**HEALTH: 3      FIRE: 0      REACTIVITY: 3**

### **SUPPLEMENTAL INFORMATION**

The data and information as stated was furnished by the manufacturer/vendor &/or supplier of this product. Alpha Resources, Inc. cannot warrant the accuracy of this information and shall not be responsible or liable for any damage that may result, should any of the information be erroneous.

Date Prepared: January 11, 2013

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