

# MATERIAL SAFETY DATA SHEET

## Chemical Product

Product Name: Yttrium oxide  
AR  
CAS#: 1314-36-9  
Synonym:  
Chemical Name: Yttrium Oxide  
Chemical Formula: Y<sub>2</sub>O<sub>3</sub>

## Composition and Information on Ingredients

Name	S.K.U	% by Weight
Yttrium oxide, powder	GCS-6534	100

## Hazards Identification

### Potential Acute Health Effects:

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

### Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available.  
TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.  
Repeated or prolonged exposure is not known to aggravate medical condition.

## First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. WARM water MUST be used. Get medical attention.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

## Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature:  
Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

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 available.

## Accidental Release Measures

### Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

### Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## Handling and Storage

### Precautions:

Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible.

### Storage:

Hygroscopic. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 25°C (77°F).

## 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. (Powdered solid.)
Odor:	Not available.
Taste:	Not available.
Molecular Weight:	225.82 g/mole
Color:	White to yellowish.
pH (1% soln/water):	Not available.
Boiling Point:	Not available.
Melting Point:	2410°C (4370°F)
Critical Temperature:	Not available.
Specific Gravity:	5.03 (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:	Not available.
Solubility:	Very slightly soluble in cold water. Soluble in dilute acids.

**Stability and Reactivity Data**

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	Incompatible materials
Incompatibility with various substances:	
Not available.	
Corrosivity:	Non-corrosive in presence of glass.
Special Remarks on Reactivity:	Hygroscopic. Readily absorbs ammonia from the air. Displaces ammonia from ammonium salts. No other information found at this time.
Special Remarks on Corrosivity:	Not available.
Polymerization:	Will not occur.

## Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: LD50: Not available. LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Hazardous in case of inhalation. Slightly hazardous in case of skin contact (irritant), of ingestion.

Special Remarks on Toxicity to Animals: Lowest Published Lethal Dose LDL [Rat] - Route: Oral; Dose: >10,000 mg/kg LDL [Mouse] - Route: Oral; Dose: >6,000 mg/kg

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: This material is not known to be a skin irritant. Eyes: Contact with dust may be abrasive and cause mechanical irritation. Inhalation: May cause respiratory tract irritaton. Ingestion: May cause gastrointestinal tract irritation. This materials has a low degree of toxicity by ingestion. Chronic Potential Health Effects: rolonged or repeated overexposure may result in chronic bronchitis, with symptoms of coughing and shortness of breath. The toxicological properties of this substance have not been fully investigated

Toxicological Data on Ingredients: Yttrium oxide, powder LD50: Not available. LC50: Not available.

## 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 product itself and its products of degradation are not toxic. Special Remarks on the Products of Biodegradation: Not available.

## Disposal Considerations

### Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## 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: TSCA 8(b) inventory: Yttrium oxide, powder

Other Regulations: EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

### Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): R36- Irritating to eyes. S2- Keep out of the reach of children. S46- If swallowed, seek medical advice immediately and show this container or label.

### 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. Splash goggles.

## Additional Information

References: Not available.

Other Special Considerations: Not available.

## ***Disclaimer:***

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