



# SAFETY DATA SHEET

ProChemOnline.com



## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Yttrium (III) oxide**  
PRODUCT NUMBER: 3863  
CAS NUMBER: 1314-36-9  
SYNONYMS: Yttria, diyttrium trioxide, yttrium sesquioxide

### MANUFACTURER:

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## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Not a dangerous substance according to the GHS

### HMIS CLASSIFICATION:

Health: 0 Flammability: 0 Reactivity: 0

### NFPA RATING:

Health: 0 Fire: 0 Reactivity Hazard: 0

**EYE CONTACT:** May cause irritation of the eyes.

**SKIN CONTACT:** May cause irritation to the skin.

**INHALATION:** May cause irritation to the respiratory tract.

**INGESTION:** May be harmful if swallowed.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula:  $Y_2O_3$

Molecular Weight: 225.82

CHEMICAL NAME	CAS#	%
Yttrium (III) oxide	1314-36-9	100

## SECTION 4 FIRST AID MEASURES

**EYE EXPOSURE:** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek medical attention.

**SKIN EXPOSURE:** After contact with skin, wash immediately with plenty of water. If irritation persists, seek medical attention.

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

## SECTION 4 FIRST AID MEASURES (Cont.)

**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.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Product is not flammable.

**AUTO IGNITION TEMPERATURE:** Not applicable

**EXPLOSION LIMITS:** Not applicable

**EXTINGUISHING MEDIUM:** Use fire fighting measures that suit the surrounding fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** If involved in a fire, fire fighters should be equipped with a NIOSH approved positive self-contained breathing apparatus, flame and chemical resistant clothing, hats, boots, and gloves.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** None

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear approved personal protective equipment. Avoid formation of dust. Ensure adequate ventilation.

**ENVIRONMENTAL PRECAUTIONS:** Do not let product enter drains or allow to be released into the environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Avoid contact with skin and eyes. Avoid formation of dust. Ensure adequate ventilation.

**CONDITIONS FOR SAFE STORAGE:** Keep container tightly closed and store in a cool, dry, and well-ventilated place.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

**EYE PROTECTION:** Always wear approved safety glasses with side shields, safety goggles, or face shield when handling a chemical substance in the laboratory.

**SKIN PROTECTION:** Chemical resistant gloves.

**VENTILATION:** Handle in an efficient chemical 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 19-10.134.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** White solid

**MOLECULAR WEIGHT:** 225.82

**BOILING POINT:** 4300°C

**MELTING POINT:** 2410° C (dec.)

**SPECIFIC GRAVITY:** 5.01 gm/ml

**VAPOR PRESSURE:** No data

**SOLUBILITY:** Insoluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** No data available

**INCOMPATIBILITY:** Water, Strong acids, Carbon dioxide, and Ammonium salts

**DECOMPOSITION PRODUCTS:** None

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LD50 Oral – rat – 230 mg/kg

**CARCINOGENIC EFFECTS:** No components of this product present at levels greater than or equal to 0.1% is identified as a confirmed carcinogen by IARC, ACGIH, NTP, and OSHA.

## SECTION 11 TOXICOLOGICAL DATA (Cont.)

**MUTAGENIC EFFECTS:** Not available

**TETRATOGENIC EFFECTS:** No data available

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

## SECTION 12 ECOLOGICAL DATA

No information available

## SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

## SECTION 14 TRANSPORTATION DATA

Non-hazardous material

## SECTION 15 REGULATORY INFORMATION

**TSCA:** Listed in the TSCA inventory

**SARA 313 COMPONENTS:** This material does not contain any chemical components with know CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 302 COMPONENTS:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 311/312 HAZARDS:** Acute Health Hazard

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS:** No components are subject to the Massachusetts Right To Know Act.

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS:** Yttrium oxide

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** Yttrium oxide

**CALIFORNIA PROP. 65 COMPONENTS:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## SECTION 16 OTHER INFORMATION

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

**DATE PREPARED:** 05/14