



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Yttrium, powder**

PRODUCT NUMBER: 3826

CAS NUMBER: 7440-65-5

MANUFACTURER:

ProChem, Inc.
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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Warning

Hazard Statements

H228	Flammable solid.
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Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces.
P222	Do not allow contact with air.
P231	Handle under inert gas.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

HMIS CLASSIFICATION:

Health: 2 Fire: 3 Reactivity Hazard: 3

NFPA RATING:

Health: 2 Flammability: 3 Reactivity Hazard: 3

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: May cause slight to mild irritation of the eyes.

SKIN CONTACT: May cause slight to mild irritation of the skin.

INHALATION: Inhalation of fine dust may be irritating to the nasal cavity, mucous membranes, and respiratory tract.

INGESTION: May be harmful if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Y

Molecular Weight: 88.91

CHEMICAL NAME	CAS#	%
Yttrium powder	7440-65-5	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under the eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Not available

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Special powder for metal fires. Do not use water.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Yttrium oxides

UNUSUAL FIRE OR EXPLOSION HAZARDS: Flammable solid. Burns with intense heat. Dust may form explosive mixtures with air. Evolves hydrogen with hot water.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Keep unprotected persons away. Keep away from sources of ignition.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Remove all sources of ignition. Use Spark-proof tools and explosion-proof equipment. Sweep up and shovel into suitable containers for disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid formation of dust. Keep away from sources of ignition-No smoking.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store in a tightly sealed container under an inert atmosphere of argon. Store away from air, moisture, and water. Moisture and air sensitive. Protect from humidity and water. Keep away from heat, sparks, and flame. Keep under nitrogen. Store in flammables area.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS

Component	Exposure Limits	Basis	Entity
Yttrium	1 mg/m ³	TLV	ACGIH
	1 mg/m ³	PEL	OSHA
	1 mg/m ³	REL	NIOSH

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles.

SKIN PROTECTION: Wear nitrile or rubber gloves, and ensure that your protective clothing is fire retardant.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Gray powder

ODOR: None

MOLECULAR WEIGHT: 88.91

BOILING POINT: 3338°C

MELTING POINT: 1522°C

SPECIFIC GRAVITY: 4.47

VAPOR DENSITY: No data available

SOLUBILITY IN WATER: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Contact with hot water. Heat, flames, and sparks. Extremes of temperature and direct sunlight.

INCOMPATIBILITY: Strong oxidizing agents, water, halogens, halocarbons, strong acids and bases, and mineral acids.

DECOMPOSITION PRODUCTS: Yttrium Oxides

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – Rat – female - >2,000 mg/kg.

CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

MUTAGENIC EFFECTS: Not available

TETRATOGENIC EFFECTS: Not available

RTECS: ZG2980000

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

SECTION 12 ECOLOGICAL DATA

Toxicity to fish - LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.61 mg/l – 96h.

SECTION 13 DISPOSAL CONSIDERATIONS

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

SECTION 14 TRANSPORTATION DATA

DOT: UN3089

Metal powders, flammable, n.o.s.

(Yttrium)

CLASS 4.1

PG III

IATA: UN3089

Metal powder, flammable, n.o.s.

(Yttrium)

CLASS 4.1

PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not Listed

SARA 311/312: Fire Hazard, Acute Health Hazard

SARA (TITLE 313): Not Listed

CALIFORNIA PROP. 65: Not Listed

MASSACHUSETTS RIGHT TO KNOW: Yttrium

PENNSYLVANIA RIGHT TO KNOW: Yttrium

NEW JERSEY RIGHT TO KNOW: Yttrium

WHMIS CANADA: Class B-4: Flammable solid

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 REVISED: 04/26

SDS DEPT.