



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Lutetium (III) Oxide**
PRODUCT NUMBER: 2422
CAS NUMBER: 12032-20-1
SYNONYMS: Lutetium trioxide, Lutetium sesquioxide, lutecia

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: 1 Flammability: 0 Reactivity: 0

NFPA RATING:

Health: 1 Fire: 0 Reactivity Hazard: 0

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

EYE CONTACT: May be a mild to severe irritant to the eyes.

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

INHALATION: Do not breathe dust. Inhalation of powder may lead to irritation of the respiratory tract.

INGESTION: May be harmful if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Lu_2O_3

Molecular Weight: 397.94

| CHEMICAL NAME | CAS# | % |
|----------------------|------------|-----|
| Lutetium (III) oxide | 12032-20-1 | 100 |

SECTION 4 FIRST AID MEASURES (Cont.)

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under 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 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 assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

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 dust formation. Avoid breathing dust, vapors, mist, or gas. 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: Small spills can be mixed with vermiculite or sodium carbonate and swept up.

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: Store material in a tightly sealed container in a dry and well-ventilated area. Air sensitive.

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 powder

MOLECULAR WEIGHT: 397.94

BOILING POINT: 3980° C

MELTING POINT: 2487° C

SPECIFIC GRAVITY: 9.41 gm/ml

VAPOR PRESSURE: No data available

SOLUBILITY: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Air and moisture stable

HAZARDOUS POLYMERIZATION: No hazardous polymerization

CONDITIONS TO AVOID: Moisture

INCOMPATIBILITY: Strong oxidizing agents and Carbon dioxide

DECOMPOSITION PRODUCTS: None

SECTION 11 TOXICOLOGICAL DATA

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.

MUTAGENIC EFFECTS: Not available

TETRATOGENIC EFFECTS: Not 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: Lutetium oxide

NEW JERSEY RIGHT TO KNOW COMPONENTS: Lutetium 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