



# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Gallium (III) Oxide**  
PRODUCT NO: 1891  
CAS NO: 12024-21-4  
SYNONYMS: Gallium sesquioxide, Gallia, Gallium trioxide

### MANUFACTURER:

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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

## 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 slight to mild irritation of the eyes.

**SKIN CONTACT:** May cause slight irritation and dryness of the skin.

**INHALATION:** Do not breathe dust. May be irritating to the nose, mucous membranes, and respiratory tract.

**INGESTION:** No information available on the effects of long-term exposure.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula:  $\text{Ga}_2\text{O}_3$

Molecular Weight: 187.44

CHEMICAL NAME	CAS#	%	ACGIH (TWA)	OSHA (PEL)
Gallium (III) oxide	12024-21-4	100	No data	No data

## SECTION 4 FIRST AID MEASURES

**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.

## SECTION 4 FIRST AID MEASURES (Cont.)

**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:** None

**EXTINGUISHING MEDIUM:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**SPECIAL FIRE FIGHTING PROCEDURES:** If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** None

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Avoid dust formation. Avoid breathing dust, vapors, mist, or gas.

**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:** Provide appropriate exhaust ventilation at places where dust is formed.

**CONDITIONS FOR SAFE STORAGE:** Store in a tightly sealed container in a 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 chemicals substance in the laboratory.

**SKIN PROTECTION:** Chemical resistant gloves.

**VENTILATION:** If possible, handle the material in an efficient 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

**MELTING POINT:** 1900° C

**BOILING POINT:** No data

**MOLECULAR WEIGHT:** 187.44

**ODOR:** None

**SPECIFIC GRAVITY:** 5.88 gm/ml

**VAPOR PRESSURE:** Not applicable

**SOLUBILITY IN WATER:** Insoluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** No hazardous polymerization

## SECTION 10 STABILITY AND REACTIVITY (Cont.)

**CONDITIONS TO AVOID:** None

**INCOMPATIBILITY:** Mineral acids, strong oxidizing agents, and active metals

**DECOMPOSITION PRODUCTS:** None

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LD50 Oral – mouse – 10,000 mg/kg

**CARCINOGENIC EFFECTS:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.

**MUTAGENIC EFFECTS:** No data

**TETRATOGENIC EFFECTS:** No data

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

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

**SARA 311/312 HAZARDS:** No SARA Hazards

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

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS:** Digallium trioxide

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** Digallium trioxide

**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.

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**SDS DEPT.**