



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Samarium (III) Nitrate Hexahydrate**
PRODUCT NUMBER: 3091
CAS NUMBER: 13759-83-6
SYNONYMS: Nitric acid, samarium (3+) salt, hexahydrate, samarium trinitrate hexahydrate.
MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H272	May intensify fire; oxidizer.
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces
P220	Keep/store away from clothing/combustible material
P221	Take any precaution to avoid mixing with combustibles.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P370+P378	In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:

Health: 2 Fire: 0 Reactivity Hazard: 2

NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 2 Specific Hazard: OX

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

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

INHALATION: May be irritating to the nose, mucous membranes, and respiratory tract.

INGESTION: Ingestion may lead to dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, and convulsions.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $\text{Sm}(\text{NO}_3)_3 \cdot 6\text{H}_2\text{O}$

Molecular Weight: 444.47

CHEMICAL NAME	CAS#	%
Samarium (III) Nitrate Hexahydrate	13759-83-6	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 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: Not available

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Carbon dioxide, dry powder, or foam.

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

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Nitrogen oxides and samarium oxides.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust. Acts as an oxidizing agent on organic materials such as wood, paper, and fats – Keep away from combustible materials

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.

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: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts and aerosols. Substance can reduce the ignition temperature of flammable substances. Keep away from heat and sources of ignition – No smoking.

CONDITIONS FOR SAFE STORAGE: Store material in a tightly sealed container. Keep away from heat and direct sunlight. Store away from flammable substance, reducing agents, and organic materials. Store in a cool, dry area.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS: Contains no substances with occupational exposure limit values.

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals

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: Yellow solid

ODOR: None

MOLECULAR WEIGHT: 336.37

BOILING POINT: No data available

MELTING POINT: 78-79° C

SPECIFIC GRAVITY: 2.375 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Exposure to moisture. Contact with strong reducing agents or organic material. Some nitrates can explode if heated to high temperature.

INCOMPATIBILITY: Strong reducing agents, strong acids, metal powders, Organic materials,

DECOMPOSITION PRODUCTS: Nitrogen oxides, samarium oxides

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat – 2900mg/kg. LD50 Oral – rat – 2,160 mg/kg. LD50 Intraperitoneal – rat – 285mg/kg. LD50 Intravenous – rat – 9mg/kg. LD50 Intraperitoneal – mouse – 315mg/kg. LDLo Subcutaneous – guinea pig – 500mg/kg. LDLo Subcutaneous – frog – 1600mg/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

TETRAOGENIC EFFECTS: Not available

CHRONIC TOXICITY: Lanthanons can cause delayed blood clotting leading to hemorrhages. Exposure may also lead to sensitivity to heat, itching, increased awareness of odor and taste, and liver damage. Small doses of nitrates may cause weakness, general depression, headache and mental impairment. Larger doses may cause dizziness, abdominal cramps, vomiting, bloody diarrhea, convulsions, and collapse.

RTECS: VP3150000

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

SECTION 12 ECOLOGICAL DATA

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

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

SECTION 14 TRANSPORTATION DATA

UN1477

Nitrates, inorganic, n.o.s.

(Samarium nitrate)

CLASS 5.1

PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

DSCL (EEC): Listed on the DSCL inventory

SARA 302/304: Not Listed

SARA 311/312: Reactivity Hazard, Acute Health Hazard.

SARA (TITLE 313): Not Listed

CALIFORNIA PROP. 65: Not Listed

NEW JERSEY RIGHT TO KNOW COMPONENTS: Samarium Trinitrate

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Samarium Trinitrate

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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