SAFETY DATA SHEET

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ProChem inc.

SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Iron (III) Nitrate Nonahydrate**

PRODUCT NUMBER: 2077

CAS NUMBER: 7782-61-8

SYNONYMS: Ferric nitrate, nonahydrate, Nitric acid, iron(3+) salt, nonahydrate

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram

Signal Word **Warning**

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.
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.
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 waster for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P362	Take off contaminated clothing and wash before reuse.
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: 1 Fire: 0 Reactivity Hazard: 1
NFPA RATING:
Health: 1 Flammability: 0 Reactivity Hazard: 1 Specific Hazard: OX

EYE CONTACT: May cause moderate to sever irritation of the eyes.

SKIN CONTACT: May cause irritation, redness, and pain to the skin.

INHALATION: Dust causes coughing, wheezing, laryngitis, shortness or breath, headache, nausea, and vomiting.

INGESTION: Soluble iron salts may cause poisoning.

CHRONIC HEALTH EFFECTS: Prolonged ingestions may lead to damage to the liver and pancreas. Prolonged inhalation of dusts may cause pulmonary fibrosis.

ACUTE HEALTH EFFECTS: Pink urine discoloration is a strong indicator of iron poisoning. Liver damage, coma, and death may follow. Sometimes delayed as long as three days. Antidotes may be administered by expert medical personnel.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $Fe(NO_3)_3 \bullet 9H_2O$

Molecular Weight: 404.00

CHEMICAL NAME	CAS#	%
Iron (III) Nitrate Nonahydrate	7782-61-8	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 plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.
INHALATION: Remove to fresh air and keep at rest. 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. Contact with combustible material may cause fire.
AUTO IGNITION TEMPERATURE: Not available
EXPLOSION LIMITS: Not available
EXTINGUISHING MEDIUM: Carbon dioxide, extinguishing powder, or water spray. Fight large fires with water spray or alcohol resistant 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: Iron oxides and nitrogen oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Keep unprotected persons away. Avoid dust formation. Avoid breathing 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 or allowing to be released into the environment.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Spills can be mixed with vermiculite or sodium carbonate and swept up. Place in suitable container for proper disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols. Handle under dry protective gas. This substance can reduce the ignition temperature of flammable substances. This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Hygroscopic. Air sensitive. Store under inert gas. Storage class: Oxidizing hazardous materials.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Iron (II) nitrate nonahydrate	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 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: Light purple crystal
ODOR: None
MOLECULAR WEIGHT: 404.00
BOILING POINT: 125° C
MELTING POINT: 47° C
SPECIFIC GRAVITY: 1.684 gm/ml
SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Contact with strong reducing agents or organic matter. Some nitrates can explode if heated to high temperature.
INCOMPATIBILITY: Organic materials, powdered metals, flammable substances, reducing agents, water, moisture, phosphorous, and sulfur.
DECOMPOSITION PRODUCTS: Nitrogen oxides and iron oxides

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat – 3250 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: NO7175000

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

UN1466
Ferric nitrate
CLASS 5.1
PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Not listed in the TSCA inventory
SARA 302/304: Not Listed
SARA 311/312: Reactivity Hazard
SARA (TITLE 313): Iron (III) nitrate nonahydrate
CALIFORNIA PROP. 65: Not Listed
MASSACHUSETTS RIGHT TO KNOW COMPONENTS: Iron (III) nitrate nonahydrate
NEW JERSEY RIGHT TO KNOW COMPONENTS: Iron (III) nitrate nonahydrate
PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Iron (III) nitrate nonahydrate

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.