

MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

Manufacturer: ProChem, Inc.
826 Roosevelt Road
Rockford, IL 61109

Phone: (815) 398-1788
Fax: (815) 398-1810
E-Mail: Prochem1@aol.com

SECTION 1 Product Identification

CHEMICAL NAME: Mercury (I) nitrate monohydrate
CAS #: 7782-86-7
FORMULA: HgNO₃.H₂O
SYNONYM: Nitric acid, mercury (+1) salt monohydrate

SECTION 2 Composition and Information on Ingredients

INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	7782-86-7	100	0.025m/m ³ (as Hg)	1mg/10m ³ (as Hg)

SECTION 3 Hazards Identification

EMERGENCY OVERVIEW: Mercury salts are toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Possible risk to the unborn child.

PRIMARY ROUTES OF EXPOSURE: Ingestion, inhalation, skin

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

SKIN CONTACT: May cause mild to severe irritation of the skin. May be absorbed through the skin. Toxic in contact with skin.

INHALATION: Toxic by inhalation. The chief effect of mercury is on the central nervous system and the mouth and gums.

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

CHRONIC HEALTH EFFECTS: The chronic effects of mercury poisoning include stomatitis, tremors, psychic disturbances, excessive salivation, and pain on chewing. Other effects include loss of memory, insomnia, lack of confidence, irritability and depression. Possible risk to the unborn child.

ACUTE HEALTH EFFECTS: Toxic by inhalation, in contact with skin and if swallowed. May be irritating to skin, eyes and respiratory.

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 applicable
AUTO IGNITION TEMPERATURE: none
EXPLOSION LIMITS: none
EXTINGUISHING MEDIUM: carbon dioxide, foam or dry powder
SPECIAL FIREFIGHTING 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: If involved in a fire this material may emit irritating fumes.
UNUSUAL FIRE OR EXPLOSION HAZARDS: Metal nitrates can be oxidizers. Contact with strong reducing agents could lead to fire and/or explosion.

SECTION 6 Accidental Release Measures

SPILL AND LEAD PROCEDURES: Small spills can be mixed with vermiculite or sodium carbonate and swept up.

SECTION 7 Handling and Storage

HANDLING AND STORAGE: Store material in a tightly sealed container. Keep away from heat and direct sunlight.

SECTION 8 Exposure Controls and Personal Protection

EYE PROTECTION: Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.
SKIN PROTECTION: Chemical-resistant.
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: yellow xtl.
MOLECULAR WEIGHT: 262.62 (280.63)
MELTING POINT (DEG. C.): none
BOILING POINT: no data
VAPOR PRESSURE: no data
SPECIFIC GRAVITY: 4.79
SOLUBILITY IN WATER: decomposes in water

SECTION 10 Stability and Reactivity

STABILITY: air and moisture stable

HAZARDOUS POLYMERIZATION: no hazardous polymerization

CONDITIONS TO AVOID: Contact with strong reducing agents or organic matter. Some nitrates can explode if heated to high temperatures.

INCOMPATIBILITY: reducing agents, organic matter, phosphorus and sulfur

DECOMPOSITION PRODUCTS: nitrogen oxides and mercury salts

SECTION 11 Toxicological Information

RTECS DATA: No information available in the RTECS files.

MUTAGENIC EFFECTS: no data

TETRATOGENIC EFFECTS: no data

CARCINOGENIC EFFECTS: no data

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

SECTION 12 Ecological Information

ECOLOGICAL INFORMATION: No information available

SECTION 13 Disposal Considerations

DISPOSAL: Dispose of in according to local state and federal regulations.

SECTION 14 Transportation Information

Mercurous nitrate, Class 6.1, UN1627, PG II

SECTION 15 Regulatory Information

TSCA: Listed in the TSCA inventory

SARA (TITLE 313): Title compound : See category N458 and N511 for reporting.

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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