



# SAFETY DATA SHEET

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## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Nickel (II) Nitrate Hexahydrate**  
PRODUCT NUMBER: 2695  
CAS NUMBER: 13478-00-7  
SYNONYMS: Nitric acid, nickel(2+)salt, hexahydrate, Nickelous nitrate 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.
H302+H332	Harmful if swallowed or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.

### Precautionary Phrases

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat.
P221	Take any precaution to avoid mixing with combustibles.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P270	Do not eat, drink, or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

P301+P312+P330	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340+P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338+P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol resistant foam to extinguish.

### HMIS CLASSIFICATION:

Health: 2      Chronic: \*      Fire: 0      Reactivity Hazard: 2

### NFPA RATING:

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

**EYE CONTACT:** Causes serious eye damage.

**SKIN CONTACT:** Causes skin irritation.

**INHALATION:** Harmful if inhaled.

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

**CHRONIC HEALTH EFFECTS:** Long term exposure to nickel compounds may be potentially cancerous. Nickel salts may lead to skin irritation and dermatitis.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

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

Molecular Weight: 290.79

CHEMICAL NAME	CAS#	%
Nickel (II) Nitrate Hexahydrate	13478-00-7	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 soap and 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:** Product is not flammable. Contact with combustible material may cause fire.

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Use fire fighting measures that suit the surrounding fire. Unsuitable: Halocarbon extinguisher.

**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 nickel oxides

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust.

## SECTION 6 ACCIDENTAL RELEASE MEASURES (Cont.)

**ENVIRONMENTAL PRECAUTIONS:** Prevent spillage from entering drains or allowing to be released into the environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Mix spill with vermiculite or sodium carbonate. Sweep up and place in suitable container for proper disposal.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Ensure adequate ventilation. Avoid contact with skin and eyes. Keep away from sources of ignition.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Hygroscopic. Store under inert gas. Store away from flammable substances, reducing agents, metal powders, water, and moisture.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Nickel (II) Nitrate Hexahydrate	1 mg/m <sup>3</sup>	PEL	OSHA
	0.1 mg/m <sup>3</sup>	TLV	ACGIH

TLV: Threshold Limit Value over 8 hours of work.

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:** Green solid

**ODOR:** None

**MOLECULAR WEIGHT:** 290.79

**BOILING POINT:** 137° C

**MELTING POINT:** 56.7° C

**SPECIFIC GRAVITY:** 2.05 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

**INCOMPATIBILITY:** Reducing agents, organic matter, phosphorus, and sulfur.

**DECOMPOSITION PRODUCTS:** Nitrogen oxides and nickel oxides

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** LD50 Oral – rat – 1620 mg/kg

**CARCINOGENIC EFFECTS:** Carcinogen to humans

**MUTAGENIC EFFECTS:** Not available

**TETRAOGENIC EFFECTS:** Not available

**CHRONIC TOXICITY:** Not available

**RTECS:** QR7300000

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

UN2725  
Nickel Nitrate  
CLASS 5.1  
PG III

Marine Pollutant: No

## SECTION 15 REGULATORY INFORMATION

**SARA 302/304:** Not Listed

**SARA (TITLE 313):** Nickel (II) Nitrate Hexahydrate

**CALIFORNIA PROP. 65:** Nickel (II) Nitrate Hexahydrate

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS:** Nickel (II) Nitrate Hexahydrate

**NEW JERSEY RIGHT TO KNOW COMPONENTS:** Nickel (II) Nitrate Hexahydrate

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS:** Nickel (II) Nitrate Hexahydrate

## SECTION 16 OTHER INFORMATION

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DATE PREPARED: 03/15

SDS DEPT.