


<a href="#">Nickel(II) Fluoride Tetrahydrate</a>		<a href="#">Pricing &gt;</a>
<b>Signal Word</b>	Danger	
<b>Hazard Statements</b>	H334-H317-H341-H350-H360-H372	
<b>Hazard Codes</b>	T	
<b>Precautionary Statements</b>	P260-P284-P201-P280-P405-P501	
<b>Flash Point</b>	Not applicable	
<b>Risk Codes</b>	N/A	
<b>Safety Statements</b>	N/A	
<b>RTECS Number</b>	QR6825000	
<b>Transport Information</b>	UN3288 6.1/PG III	
<b>WGK Germany</b>	3	
<b>GHS Pictograms</b>	<a href="#">GHS08 Health Hazard</a> 	

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## SAFETY DATA SHEET

Date Accessed: 03/28/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #13940-83-5

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551

Fax: +1 310-208-0351

Emergency telephone number:

Domestic, North America +1 800-424-9300

International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Respiratory Sensitization Category 1

Skin Sensitization Category 1

Germ Cell Mutagenicity Category 2

Carcinogenicity Category 1A

Reproductive Toxicity Category 1A

Specific target organ toxicity - (repeated exposure)  
Category 1

Target Organs - Lungs.

Signal Word: Danger

Hazard Statements:

May cause an allergic skin reaction

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Suspected of causing genetic defects

May cause cancer

May damage fertility or the unborn child

Causes damage to organs through prolonged or repeated exposure



### Precautionary Statements

#### Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

In case of inadequate ventilation wear respiratory protection

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

#### Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing  
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician  
Skin  
IF ON SKIN: Wash with plenty of soap and water  
If skin irritation or rash occurs: Get medical advice/attention  
Wash contaminated clothing before reuse  
Storage  
Store locked up  
Disposal  
Dispose of contents/container to an approved waste disposal plant  
Hazards not otherwise classified (HNOC)  
Very toxic to aquatic life with long lasting effects

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component / CAS-No / Weight %:  
Nickel fluoride (NiF<sub>2</sub>), tetrahydrate / 13940-83-5 /  
<=100

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### **SECTION 4. FIRST AID MEASURES**

General Advice  
If symptoms persist, call a physician.  
Eye Contact  
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.  
Skin Contact  
Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.  
Inhalation  
Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.  
Ingestion  
Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.  
Most important symptoms and effects  
May cause allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet,

dizziness, lightheadedness, chest pain,  
muscle pain or flushing  
Notes to Physician  
Treat symptomatically

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## **SECTION 5. FIREFIGHTING MEASURES**

Suitable Extinguishing Media Not combustible.  
Unsuitable Extinguishing Media No information available  
Flash Point No information available  
Method - No information available  
Autoignition Temperature No information available  
Explosion Limits  
Upper No data available  
Lower No data available  
Sensitivity to Mechanical Impact No information available  
Sensitivity to Static Discharge No information available  
Specific Hazards Arising from the Chemical  
Do not allow run-off from fire-fighting to enter drains or water courses.  
Hazardous Combustion Products  
Hydrogen fluoride. Nickel oxides.  
Protective Equipment and Precautions for Firefighters  
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.  
NFPA  
Health  
3  
Flammability  
  
Instability  
  
Physical hazards  
-

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal Precautions  
Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.  
Environmental Precautions  
Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains.  
Local authorities should be advised if significant

spillages cannot be contained. Should not be released into the environment.

Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal

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## **SECTION 7. HANDLING AND STORAGE**

Handling

Wear personal protective equipment/face protection.

Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29

CFR 1910.133 or European Standard

EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical State Solid

Appearance Green

Odor Odorless

Odor Threshold No information available  
pH No information available  
Melting Point/Range No data available  
Boiling Point/Range No information available  
Flash Point No information available  
Evaporation Rate Not applicable  
Flammability (solid,gas) No information available  
Flammability or explosive limits  
Upper No data available  
Lower No data available  
Vapor Pressure No information available  
Vapor Density Not applicable  
Specific Gravity 4.6 g/cm<sup>3</sup>  
Solubility No information available  
Partition coefficient; n-octanol/water No data available  
Autoignition Temperature No information available  
Decomposition Temperature No information available  
Viscosity Not applicable  
Molecular Formula NiF<sub>2</sub>·4H<sub>2</sub>O  
Molecular Weight 168.77 (96.71anhy)

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactive Hazard  
None known, based on information available  
Stability  
Stable under normal conditions.  
Conditions to Avoid  
Incompatible products.  
Incompatible Materials  
Oxidizing agent  
Hazardous Decomposition Products  
Hydrogen fluoride, Nickel oxides  
Hazardous Polymerization  
Hazardous polymerization does not occur.  
Hazardous Reactions  
None under normal processing.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Acute Toxicity  
Product Information  
Component Information  
Toxicologically Synergistic  
Products  
No information available  
Delayed and immediate effects as well as chronic effects from short and long-term exposure  
Irritation No information available  
Sensitization May cause sensitization by skin contact

Carcinogenicity  
Component CAS-No IARC NTP ACGIH OSHA  
Mexico  
Nickel fluoride (NiF<sub>2</sub>),  
tetrahydrate  
13940-83-5 Not listed Known Not listed Not listed Not  
listed  
NTP: (National Toxicity Program) NTP: (National  
Toxicity Program)  
Known - Known Carcinogen  
Reasonably Anticipated - Reasonably Anticipated to  
be a Human  
Carcinogen  
Mutagenic Effects No information available  
Reproductive Effects No information available.  
Developmental Effects No information available.  
Teratogenicity No information available.  
STOT - single exposure None known  
STOT - repeated exposure Lungs  
Aspiration hazard No information available  
Symptoms / effects, both acute and delayed  
Symptoms of allergic reaction may include rash,  
itching, swelling, trouble breathing, tingling  
of the hands and feet, dizziness, lightheadedness,  
chest pain, muscle pain or flushing  
Endocrine Disruptor Information No information  
available  
Other Adverse Effects The toxicological properties  
have not been fully investigated

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## **SECTION 12. ECOLOGICAL INFORMATION**

Ecotoxicity  
Very toxic to aquatic organisms, may cause long-term  
adverse effects in the aquatic environment. The  
product contains following substances which are  
hazardous for the environment. May cause long-term  
adverse effects in the environment. Do not allow  
material to contaminate ground water system.  
Persistence and Degradability  
Based on information available. May persist  
Bioaccumulation/ Accumulation  
No information available.  
Mobility  
Will likely be mobile in the environment due to its  
water solubility.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT

UN-No UN3288

Proper Shipping Name Toxic solid, inorganic, n.o.s.

Technical Name (Nickel(II) fluoride tetrahydrate)

Hazard Class 6.1

Packing Group III

TDG

UN-No UN3288

Proper Shipping Name Toxic solid, inorganic, n.o.s.

Hazard Class 6.1

Packing Group III

IATA

UN-No UN3288

Proper Shipping Name Toxic solid, inorganic, n.o.s.

Hazard Class 6.1

Packing Group III

IMDG/IMO

UN-No UN3288

Proper Shipping Name Toxic solid, inorganic, n.o.s.

Hazard Class 6.1

Packing Group III

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## **SECTION 15. REGULATORY INFORMATION**

U.S. Federal Regulations

SARA 313

Component CAS-No Weight % SARA 313 - Threshold Values %

Nickel fluoride tetrahydrate Revision Date 21-Feb-2020

Nickel fluoride (NiF<sub>2</sub>), tetrahydrate 13940-83-5 ≤100  
0.1

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component CWA - Hazardous Substances

CWA - Reportable

Quantities

CWA - Toxic Pollutants CWA - Priority Pollutants

Nickel fluoride (NiF<sub>2</sub>),



tetrahydrate  
- - X -  
Clean Air Act  
Component HAPS Data Class 1 Ozone Depletors  
Class 2 Ozone Depletors  
Nickel fluoride (NiF<sub>2</sub>), tetrahydrate X -  
OSHA - Occupational Safety and  
Health Administration  
Not applicable  
CERCLA Not applicable  
California Proposition 65 This product contains the  
following Proposition 65 chemicals.  
Component CAS-No California Prop. 65 Prop 65  
NSRL Category  
Nickel fluoride (NiF<sub>2</sub>),  
tetrahydrate  
13940-83-5 Carcinogen  
Developmental  
Male Reproductive  
- Developmental  
Carcinogen  
U.S. State Right-to-Know  
Regulations  
Component Massachusetts New Jersey Pennsylvania  
Illinois Rhode Island  
Nickel fluoride (NiF<sub>2</sub>), tetrahydrate - X X X X  
U.S. Department of Transportation  
Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N  
U.S. Department of Homeland  
Security  
This product does not contain any DHS chemicals.  
Other International Regulations  
Mexico - Grade No information available

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## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL

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