

Issue Date 3-Nov-2020

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Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Uranium

### Other means of identification

**Product Code** PEI-143

**UN/ID no.** 2031

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended Use** For Laboratory Use Only.

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

NSI Lab Solutions, Inc.

7212 ACC Blvd.

Raleigh, NC 27617

### Emergency telephone number

**Company Phone Number** 800-234-7837

**FAX** 919-789-3019

**Website** www.nsilabsolutions.com

**E-mail address** nsi@nsilabsolutions.com

**Emergency Telephone** 919-349-7322

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

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

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

### Label elements

#### Emergency Overview

**Danger**

#### **Hazard statements**

H332: Harmful if inhaled

H314: Causes severe skin burns and eye damage



<b>Appearance</b> Clear / Colorless to light yellow	<b>Physical state</b> Liquid	<b>Odor</b> Odorless
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**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Use only outdoors or in a well-ventilated area  
 Do not breathe dusts or mists  
 Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor  
 Specific treatment (see supplemental first aid on this label).  
 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  
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 Immediately call a POISON CENTER or doctor  
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Not applicable

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Chemical Name	CAS No.	Weight-%
Nitric acid	7697-37-2	1-5
Water	7732-18-5	90-94
Uranium oxide	1344-59-8	0-0.1

Refer to Certificate of Analysis for exact percentage concentration.

### 4. FIRST AID MEASURES

**Description of first aid measures****General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or Safety Data Sheet, if possible).

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Inhalation</b>	Remove to fresh air. If symptoms persist, call a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Consult a physician, if necessary.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	The most important known symptoms and effects are described in Section 2 and/or Section 11.
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**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically.
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**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available.

**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and/or toxic gases and vapors.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**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.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment, as required. Do not get in eyes, on skin, or on clothing.
<b>For emergency responders</b>	Ensure adequate ventilation.

**Environmental precautions**

<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
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**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Soak up condensate with inert absorbent material and collect in ventilated waste container for disposal.
<b>Methods for cleaning up</b>	Take up mechanically, placing in appropriate containers for disposal.
<b>Prevention of secondary hazards</b>	See Section 12: ECOLOGICAL INFORMATION.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Avoid breathing vapors or mists. For precautions, see Section 2.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Store in accordance with local regulations.

**Incompatible materials** No information available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Nitric acid 7697-37-2	STEL: 4 ppm TWA: 2 ppm	TWA: 2 ppm TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m <sup>3</sup> (vacated) STEL: 4 ppm (vacated) STEL: 10 mg/m <sup>3</sup>	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m <sup>3</sup> STEL: 4 ppm STEL: 10 mg/m <sup>3</sup>
Water 7732-18-5	-	-	-
Uranium oxide 1344-59-8	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	-

**Appropriate engineering controls**

**Engineering Controls** Handle in accordance with good industrial hygiene and safety practice.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Wash hands thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Odor</b>	Odorless
<b>Appearance</b>	Clear / Colorless to light yellow	<b>Odor threshold</b>	No information available
<b>Color</b>	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available.	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	

<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	No information available
<b>Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Relative density</b>	No information available
<b>Water solubility</b>	Miscible in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Kinematic viscosity</b>	No information available
<b>Dynamic viscosity</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

No information available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

No information available.

<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
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**Conditions to avoid**

No information available.

**Incompatible materials**

No information available.

**Hazardous Decomposition Products**Nitrogen oxides (NO<sub>x</sub>).

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

<b>Product Information</b>	No data available
<b>Inhalation</b>	No data available.
<b>Eye contact</b>	No data available.
<b>Skin contact</b>	No data available.

**Ingestion** No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Nitric acid 7697-37-2	-	-	= 130 mg/m <sup>3</sup> ( Rat ) 4 h = 2500 ppm ( Rat ) 1 h
Water 7732-18-5	> 90 mL/kg ( Rat )	-	-
Uranium oxide 1344-59-8	-	-	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.  
**Germ cell mutagenicity** No information available.  
**Carcinogenicity** No components of this mixture at given concentrations are considered to be carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.  
**Reproductive toxicity** No information available.  
**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Other adverse effects** No information available.  
**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (inhalation-dust/mist) 2.60  
 ATEmix (inhalation-vapor) 1,340.00

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

1 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Nitric acid 7697-37-2	-	72: 96 h Gambusia affinis mg/L LC50	-
Water 7732-18-5	-	-	-
Uranium oxide 1344-59-8	-	-	-

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
Nitric acid 7697-37-2	-2.3
Water 7732-18-5	-
Uranium oxide 1344-59-8	-

**Other adverse effects** No information available

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse container.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Nitric acid 7697-37-2	-	-	-	-
Water 7732-18-5	-	-	-	-
Uranium oxide 1344-59-8	-	-	-	-

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Nitric acid 7697-37-2	-	-	-	-
Water 7732-18-5	-	-	-	-
Uranium oxide 1344-59-8	-	-	-	-

Chemical Name	California Hazardous Waste Status
Nitric acid 7697-37-2	Toxic Corrosive Ignitable
Water 7732-18-5	-
Uranium oxide 1344-59-8	-

**14. TRANSPORT INFORMATION**

**DOT**  
**UN/ID no.** Regulated  
 2031  
**Proper shipping name** Nitric acid solution  
**Hazard Class** 8  
**Packing Group** II

**IATA**  
**UN/ID no.** UN2031  
**Proper shipping name** Nitric acid solution  
**Hazard Class** 8  
**Packing Group** II

**IMDG**  
**UN/ID no.** UN2031  
**Proper shipping name** Nitric acid solution  
**Hazard Class** 8  
**Packing Group** II  
**EmS-No.** F-A, S-B

**15. REGULATORY INFORMATION**

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**Legend:**

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Nitric acid - 7697-37-2	1.0
Water - 7732-18-5	-
Uranium oxide - 1344-59-8	1.0

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product, as supplied, does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Nitric acid 7697-37-2	1000 lb	-	-	X
Water 7732-18-5	-	-	-	-
Uranium oxide 1344-59-8	-	-	-	-

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ



Water 7732-18-5	-	-	-
Uranium oxide 1344-59-8	-	-	-

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

Chemical Name	California Proposition 65
Nitric acid - 7697-37-2	-
Water - 7732-18-5	-
Uranium oxide - 1344-59-8	-

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Nitric acid 7697-37-2	X	X	X
Water 7732-18-5	-	-	X
Uranium oxide 1344-59-8	X	-	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	Health hazards 3	Flammability 0	Instability 0	Physical and Chemical Properties -
<b>HMIS</b>	Health hazards 3	Flammability 0	Physical hazards 2	Personal protection X

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 Revision Note

No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**