SAFETY DATA SHEET

Issue Date 16-Feb-2022 **Revision Date** 16-Feb-2022 **Version** 1

1. IDENTIFICATION

Product identifier **Product Name** Drinking Water Mercury QC Standard

Other means of identification

Product Code PEI-088

UN/ID no. UN2031

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

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

Appearance Clear / Colorless to light yellow **Physical state** Liquid **Odor** Odorless

Precautionary Statements - Prevention

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
Wear protective gloves/protective clothing/eye protection/face protection

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 0.001 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%
Water	7732-18-5	89-90
Nitric acid	7697-37-2	1-10
Methyl mercury chloride	116-09-3	0-0.001
Mercury nitrate	10045-94-0	0-0.001

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.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation Remove to fresh air. If symptoms persist, call a physician.

Ingestion 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

Symptoms The most important known symptoms and effects are described in Section 2 and/or Section 11.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

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

Personal precautions	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.
For emergency responders	Ensure adequate ventilation.

Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment	Soak up condensate with inert absorbent material and collect in ventilated waste container for disposal.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	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
Water 7732-18-5	-	-	-
Nitric acid 7697-37-2	STEL: 4 ppm TWA: 2 ppm	TWA: 2 ppm TWA: 5 mg/m^3 (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m^3 (vacated) STEL: 4 ppm (vacated) STEL: 10 mg/m^3	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m^3 STEL: 4 ppm STEL: 10 mg/m^3
Methyl mercury chloride 116-09-3	-	-	-
Mercury nitrate 10045-94-0	TWA: 0.025 mg/m^3 Hg S*	(vacated) Ceiling: 0.1 mg/m^3 Hg	IDLH: 10 mg/m^3 Hg Ceiling: 0.1 mg/m^3 Hg TWA: 0.05 mg/m^3 except Organo alkyls Hg vapor

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

Physical state Liquid

Appearance	Clear / Colorless to light yellow
Color	No information available

Property	**Values**
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
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Relative density	No information available
Water solubility	Miscible in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available

Odor Odorless **Odor threshold** No information available

Remarks • Method

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability
Stable under recommended storage conditions. **Possibility of Hazardous Reactions** No information available.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid No information available.

Incompatible materials
No information available.

Hazardous Decomposition Products
Nitrogen oxides (NOx).

Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	No data available
Inhalation	No data available.
Eye contact	No data available.
Skin contact	No data available.
Ingestion	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Nitric acid 7697-37-2	-	-	= 130 mg/m^3 (Rat) 4 h = 67 ppm (Rat) 4 h
Mercury nitrate 10045-94-0	= 26 mg/kg (Rat)	= 75 mg/kg (Rat)	-
Methyl mercury chloride 116-09-3	-	-	-

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 information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Water 7732-18-5	-	-	-	-
Nitric acid 7697-37-2	-	Group 2A Group 1	-	X

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) 1.30
ATEmix (inhalation-vapor) 670.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.001 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Water 7732-18-5	-	-	-
Nitric acid 7697-37-2	-	72: 96 h Gambusia affinis mg/L LC50	-
Mercury nitrate 10045-94-0	-	-	-
Methyl mercury chloride 116-09-3	-	-	-

Persistence and degradability
No information available.

Bioaccumulation No information available.

Chemical Name	Partition coefficient
Water 7732-18-5	-
Nitric acid 7697-37-2	-2.3

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
Water 7732-18-5	-	-	-	-
Nitric acid 7697-37-2	-	-	-	-
Mercury nitrate 10045-94-0	-	-	-	-
Methyl mercury chloride	-		-	-

116-09-3				
Chemical Name	**RCRA - Halogenated Organic Compounds**	**RCRA - P Series Wastes**	**RCRA - F Series Wastes**	**RCRA - K Series Wastes**
Water 7732-18-5	-	-	-	-
Nitric acid 7697-37-2	-	-	-	-

Chemical Name	**California Hazardous Waste Status**
Water 7732-18-5	-
Nitric acid 7697-37-2	Toxic Corrosive Ignitable
Mercury nitrate 10045-94-0	Toxi c Ignit able
Methyl mercury chloride 116-09-3	-

14. TRANSPORT INFORMATION

This standard is packaged and shipped in accordance with 49 CFR 173.4: Hazardous Materials in Excepted Quantities.

DOT

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

IATA

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

IMDG

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

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies

ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	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 %
Water - 7732-18-5	-
Nitric acid - 7697-37-2	1.0

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	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
Water 7732-18-5	-	-	-	-
Nitric acid 7697-37-2	1000 lb	-	-	X

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)
Water 7732-18-5	-	-	-
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

Chemical Name	California Proposition 65
Water - 7732-18-5	-
Nitric acid - 7697-37-2	-

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Water 7732-18-5	-	-	X
Nitric acid 7697-37-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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

NFPA **Health hazards** 3 **Flammability** 0 **Instability** 0 **Physical and Chemical Properties** -

HMIS **Health hazards** 3 **Flammability** 0 **Physical hazards** 2 **Personal protection** X

Issue Date 16-Feb-2022
Revision Date 16-Feb-2022
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