

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations (WHMIS 2015) Revision Date: 01/30/20

Version: 2.2

SECTION 1: IDENTIFICATION

Product Identifier

Product Name: Nitric Acid, 65 - 70% HNO3 **Intended Use of the Product** Not available

Name, Address, and Telephone of the Responsible Party

Company

LSB Chemical L.L.C. 1080 Industrial Drive Cherokee, AL 35616

T (256) 359-7000 – F (256) 359-4450

Emergency Telephone Number

Emergency number : (256) 359-7000, (800) 424-9300 (CHEMTREC, 24 hours)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Ox. Liq. 3 H272 Met. Corr. 1 H290 Skin Corr. 1A H314 Eye Dam. 1 H318

Label Elements GHS-US Labeling

Hazard Pictograms (GHS-US)





Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H272 - May intensify fire; oxidizer

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

Precautionary Statements (GHS-US) : P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking.

P220 - Keep/Store away from extremely high or low temperatures, ignition sources,

combustible materials, incompatible materials.

P221 - Take any precaution to avoid mixing with incompatible materials, ignition sources,

combustible materials.

P234 - Keep only in original container.

P260 - Do not breathe vapors, mist, spray.

P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.

P280 - Wear protective gloves, protective clothing, eye protection, face protection,

respiratory protection.

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. $% \label{eq:contact} % \label{$

P310 - Immediately call a POISON CENTER or doctor/physician.

P321 - Specific treatment (see section 4).

P363 - Wash contaminated clothing before reuse.

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P370+P378 - In case of fire: Use appropriate media for extinction.

P390 - Absorb spillage to prevent material damage.

P405 - Store locked up.

P406 - Store in corrosive resistant container with a resistant inner liner.

P501 - Dispose of contents/container to local, regional, national, territorial, provincial, and

international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. May cause or intensify fire; oxidizer.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Nitric acid	(CAS No) 7697-37-2	53 - 67	Ox. Liq. 3, H272
			Met. Corr. 1, H290
			Skin Corr. 1A, H314
			Eye Dam. 1, H318
Water	(CAS No) 7732-18-5	33 - 47	Not classified

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call for medical assistance.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Immediately call for medical assistance. Wash contaminated clothing before reuse.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call for medical assistance.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call for medical assistance.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes severe skin burns and eye damage. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

Inhalation: Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

Skin Contact: Causes severe irritation which will progress to chemical burns.

Eye Contact: Causes serious eye damage.

Ingestion: Contact may cause immediate severe irritation progressing quickly to chemical burns. Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May cause erosion of the teeth, or chronic bronchitis.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: May intensify fire; oxidizer. Will burn if exposed to heat, and in addition, will accelerate the burning of other combustibles, resulting in more rapid spread of fire.

Explosion Hazard: Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

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Reactivity: Thermal decomposition generates: Toxic/Corrosive vapors. Can react explosively with reducing agents, metal powders, Hydrogen sulfide, nitrate, and organic materials.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. **Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Nitrogen oxides. Acrid vapors.

Other information: Do not allow run-off from fire fighting to enter drains or water courses. Use water spray to disperse vapors.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do NOT breathe (vapors, mist, spray). Avoid all contact with skin, eyes, or clothing. Keep away from

heat/sparks/open flames/hot surfaces. – No smoking.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Cautiously neutralize spilled liquid.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb spillage to prevent material damage. Cautiously neutralize spilled liquid. Contact competent authorities after a spill.

Reference to Other Sections

See section 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: May be corrosive to metals. When heated to decomposition, emits toxic fumes.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do no eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep in fireproof place. Keep/Store away from extremely high or low temperatures, direct sunlight, heat, ignition sources, combustible materials, incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Finely divided metals. Hydrogen sulfide. Reducing agents. Combustible materials.

Specific End Use(s) Not available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Nitric acid (7697-37	7-2)	
Mexico	OEL TWA (mg/m³)	5 mg/m³
Mexico	OEL TWA (ppm)	2 ppm
Mexico	OEL STEL (mg/m³)	10 mg/m ³
Mexico	OEL STEL (ppm)	4 ppm

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Exposure Controls

Appropriate Engineering Controls: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use explosion-proof equipment. Ensure all national/local regulations are observed. Alarm detectors should be used when toxic gases may be released.

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Personal Protective Equipment: Gloves. Respiratory protection of the dependent type. Protective goggles. Protective clothing.









Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosion-proof clothing. Wear fire/flame resistant/retardant clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use NIOSH-approved air-purifying or supplied-air respirator where airborne concentrations of vapor or mist

are expected to exceed exposure limits.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State : Liquid

Appearance : Colorless, Light brown

Odor : Acrid

Odor Threshold : Not available

pH : <1 Relative Evaporation Rate (butylacetate=1) : ~1

Melting Point: Not availableFreezing Point: Not available

Boiling Point : 118.9 °C (246°F) @ 57%

Flash Point: Not availableAuto-ignition Temperature: Not availableDecomposition Temperature: Not availableFlammability (solid, gas): Not availableLower Flammable Limit: Not availableUpper Flammable Limit: Not available

Vapor Pressure : 7.4 mm Hg @25.6°C (78°F)

Relative Vapor Density at 20 °C : > 1 (air=1)
Relative Density : Not available

Specific Gravity : 1.35 @25.6°C (78°F) 57%

 Solubility
 : Miscible

 Viscosity
 : Not available

 Explosion Data – Sensitivity to Mechanical Impact
 : Not available

 Explosion Data – Sensitivity to Static Discharge
 : Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Thermal decomposition generates: Toxic/Corrosive vapors. Can react explosively with reducing agents, metal powders, Hydrogen sulfide, nitrate, and organic materials.

Chemical Stability: May intensify fire; oxidizer.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Heat. Sparks. Overheating. Open flame. Incompatible materials. Adding water to acid should be avoided.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers. Metals. May be corrosive to metals. Reducing agents. Amines.

Hazardous Decomposition Products: Thermal decomposition generates : Corrosive vapors. Nitrogen oxides.

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes severe skin burns and eye damage. pH: < 1

Serious Eye Damage/Irritation: Causes serious eye damage. pH: < 1

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available **Carcinogenicity:** Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Inhalation may cause immediate severe irritation progressing quickly to chemical burns.

Symptoms/Injuries After Skin Contact: Causes severe irritation which will progress to chemical burns.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Contact may cause immediate severe irritation progressing quickly to chemical burns. Ingestion is

likely to be harmful or have adverse effects.

Chronic Symptoms: May cause erosion of the teeth, or chronic bronchitis.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Water (7732-18-5)	
LD50 Oral Rat	> 90000 mg/kg
Nitric acid (7697-37-2)	
LC50 Inhalation Rat (mg/l)	0.13 mg/l (Exposure time: 4 h)
LC50 Inhalation Rat (ppm)	67 ppm/4h

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified

Persistence and Degradability

Nitric Acid	
Persistence and Degradability	Not established.

Bioaccumulative Potential

Nitric Acid	
Bioaccumulative Potential	Not established.
Nitric acid (7697-37-2)	
Log Pow	-2.3 (at 25 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

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SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : NITRIC ACID other than red fuming, with at least 65% but not more than 70% nitric acid

Hazard Class : 8

Identification Number: UN2031Label Codes: 8,5.1Packing Group: IIERG Number: 157

14.2 In Accordance with IMDG

Proper Shipping Name : NITRIC ACID other than red fuming, with at least 65% but not more than 70% nitric acid

Hazard Class : 8

Identification Number : UN2031

Packing Group : II
Label Codes : 8,5.1
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-Q





14.3 In Accordance with IATA

Proper Shipping Name : NITRIC ACID other than red fuming, with at least 65% but not more than 70% nitric acid

Packing Group : II

Identification Number : UN2031

Hazard Class : 8 Label Codes : 8,5.1 ERG Code (IATA) : 8L

14.4 In Accordance with TDG

Proper Shipping Name : NITRIC ACID other than red fuming, with not more than 70% percent nitric acid

Packing Group : II
Hazard Class : 8
Identification Number : UN2031
Label Codes : 8



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

Nitric Acid	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
	Reactive hazard

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Nitric acid (7697-37-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 302 (Specific toxic chemical listings)

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 302 Threshold Planning Quantity (TPQ) 1000 SARA Section 313 - Emission Reporting 1.0 %

US State Regulations

Nitric acid (7697-37-2)

- U.S. California SCAQMD Toxic Air Contaminants Non-Cancer Acute
- U.S. California SCAQMD Toxic Air Contaminants With Proposed Risk Values
- U.S. California Toxic Air Contaminant List (AB 1807, AB 2728)
- U.S. Connecticut Hazardous Air Pollutants HLVs (30 min)

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- U.S. Connecticut Hazardous Air Pollutants HLVs (8 hr)
- U.S. Delaware Accidental Release Prevention Regulations Sufficient Quantities
- U.S. Delaware Accidental Release Prevention Regulations Threshold Quantities
- U.S. Delaware Accidental Release Prevention Regulations Toxic Endpoints
- U.S. Delaware Pollutant Discharge Requirements Reportable Quantities
- U.S. Idaho Non-Carcinogenic Toxic Air Pollutants Acceptable Ambient Concentrations
- U.S. Idaho Non-Carcinogenic Toxic Air Pollutants Emission Levels (ELs)
- U.S. Idaho Occupational Exposure Limits TWAs
- U.S. Illinois Toxic Air Contaminants
- U.S. Louisiana Reportable Quantity List for Pollutants
- U.S. Massachusetts Oil & Hazardous Material List Groundwater Reportable Concentration Reporting Category 1
- U.S. Massachusetts Oil & Hazardous Material List Groundwater Reportable Concentration Reporting Category 2
- U.S. Massachusetts Oil & Hazardous Material List Reportable Quantity
- U.S. Massachusetts Oil & Hazardous Material List Soil Reportable Concentration Reporting Category 1
- U.S. Massachusetts Oil & Hazardous Material List Soil Reportable Concentration Reporting Category 2
- RTK U.S. Massachusetts Right To Know List
- U.S. Massachusetts Toxics Use Reduction Act
- U.S. Michigan Occupational Exposure Limits STELs
- U.S. Michigan Occupational Exposure Limits TWAs
- U.S. Michigan Polluting Materials List
- U.S. Michigan Process Safety Management Highly Hazardous Chemicals
- U.S. Minnesota Chemicals of High Concern
- U.S. Minnesota Hazardous Substance List
- U.S. Minnesota Permissible Exposure Limits STELs
- U.S. Minnesota Permissible Exposure Limits TWAs
- U.S. New Hampshire Regulated Toxic Air Pollutants Ambient Air Levels (AALs) 24-Hour
- U.S. New Hampshire Regulated Toxic Air Pollutants Ambient Air Levels (AALs) Annual
- U.S. New Jersey Discharge Prevention List of Hazardous Substances
- U.S. New Jersey Environmental Hazardous Substances List
- RTK U.S. New Jersey Right to Know Hazardous Substance List
- U.S. New Jersey Special Health Hazards Substances List
- U.S. New Jersey TCPA Extraordinarily Hazardous Substances (EHS)
- U.S. New York Occupational Exposure Limits TWAs
- U.S. New York Reporting of Releases Part 597 List of Hazardous Substances
- U.S. North Carolina Control of Toxic Air Pollutants
- U.S. North Dakota Air Pollutants Guideline Concentrations 1-Hour
- U.S. North Dakota Air Pollutants Guideline Concentrations 8-Hour
- U.S. Ohio Accidental Release Prevention Threshold Quantities
- U.S. Ohio Extremely Hazardous Substances Threshold Quantities
- U.S. Oregon Permissible Exposure Limits TWAs
- RTK U.S. Pennsylvania RTK (Right to Know) Environmental Hazard List
- RTK U.S. Pennsylvania RTK (Right to Know) List
- U.S. Rhode Island Air Toxics Acceptable Ambient Levels 1-Hour
- U.S. South Carolina Toxic Air Pollutants Maximum Allowable Concentrations
- U.S. South Carolina Toxic Air Pollutants Pollutant Categories
- U.S. Tennessee Occupational Exposure Limits STELs
- U.S. Tennessee Occupational Exposure Limits TWAs
- U.S. Texas Effects Screening Levels Long Term
- U.S. Texas Effects Screening Levels Short Term
- U.S. Vermont Permissible Exposure Limits STELs
- U.S. Vermont Permissible Exposure Limits TWAs
- U.S. Washington Permissible Exposure Limits STELs
- U.S. Washington Permissible Exposure Limits TWAs

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- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 25 Feet to Less Than 40 Feet
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 40 Feet to Less Than 75 Feet
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights 75 Feet or Greater
- U.S. Wisconsin Hazardous Air Contaminants All Sources Emissions From Stack Heights Less Than 25 Feet
- U.S. Wyoming Process Safety Management Highly Hazardous Chemicals

Canadian Regulations

	Αc	

WHMIS Classification Class E - Corrosive Material Class C - Oxidizing Material





Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification Uncontrolled product according to WHMIS classification criteria

Nitric acid (7697-37-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

WHMIS Classification Class C - Oxidizing Material

Class E - Corrosive Material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 01/30/2020

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA

Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Ox. Liq. 3	Oxidizing liquids Category 3
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H272	May intensify fire; oxidizer
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

NFPA Health Hazard : 3 - Short exposure could cause serious temporary or

residual injury even though prompt medical attention was

given.

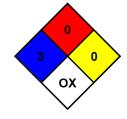
NFPA Fire Hazard : 0 - Materials that will not burn.

NFPA Reactivity : 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.

NFPA Specific Hazard : OX - This denotes an oxidizer, a chemical which can greatly

increase the rate of combustion/fire.



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Party Responsible for the Preparation of This Document

LSB Chemical L.L.C. 1080 Industrial Drive Cherokee, AL 35616 T (256) 359-7000

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS 2

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