



# Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: November 2017

Version: 1.0

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

### Product Identifier

**Product Name:** Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)

**Intended Use of the Product** Not available

### Name, Address, and Telephone of the Responsible Party

#### Company

LSB Chemical L.L.C.

4500 North West Ave.

P.O. Box 231

El Dorado, AR 71731

T (870) 863-1400 - F (870)-863-1126

### Emergency Telephone Number

**Emergency number** : (870) 863-1400, (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

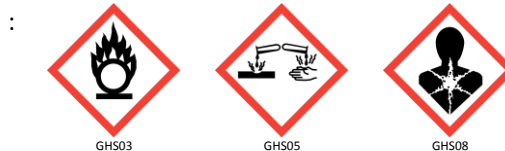
Eye Dam. 1 H318

Carc. 1A H350

### 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  
H350 - May cause cancer

#### Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
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.

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P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P310 - Immediately call a POISON CENTER or doctor/physician.  
P321 - Specific treatment (see section 4).  
P363 - Wash contaminated clothing before reuse.  
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. When heated to decomposition, emits toxic fumes, corrosive vapors. Contact with metals may evolve flammable hydrogen gas.

**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	40 – 70, 60 - 85	Ox. Liq. 3, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318
Sulfuric acid	(CAS No) 7664-93-9	15 – 40, 30 -60	Skin Corr. 1A, H314 Eye Dam. 1, H318 Carc. 1A, H350 Met. Corr. 1, H290

More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary due to varying composition.

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. May cause cancer.

**Inhalation:** Inhalation may cause immediate severe irritation progressing quickly to chemical burns. May cause cancer by inhalation of mists.

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

**Eye Contact:** Causes serious eye damage.

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**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: FIREFIGHTING MEASURES**

### **Extinguishing Media**

**Suitable Extinguishing Media:** Carbon dioxide, dry chemical.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire. Evolution of heat and spattering will result.

### **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. In contact with metals, emits flammable/explosive gas. May cause fire or explosion; strong oxidizer.

**Reactivity:** Thermal decomposition generates : toxic/corrosive vapors. Can react explosively with reducing agents, metal powders, hydrogen sulfide, nitrate, and organic materials. Contact with metals may evolve flammable hydrogen gas.

### **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, sulfur oxides, corrosive vapors.

**Other information:** Do not allow run-off from fire fighting to enter drains or water courses. Contact with metals may evolve flammable hydrogen gas. 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. As an immediate precautionary measure, isolate spill or leak area in all directions.

**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. Corrosive vapors are released. Contact with metals may evolve flammable hydrogen gas.

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**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 not 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. Organic materials.

**Specific End Use(s)** Not available

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Nitric acid (7697-37-2)		
Mexico	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Mexico	OEL TWA (ppm)	2 ppm
Mexico	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Mexico	OEL STEL (ppm)	4 ppm
USA ACGIH	ACGIH TWA (ppm)	2 ppm
USA ACGIH	ACGIH STEL (ppm)	4 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	2 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	2 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (ppm)	4 ppm
USA IDLH	US IDLH (ppm)	25 ppm
Alberta	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Alberta	OEL STEL (ppm)	4 ppm
Alberta	OEL TWA (mg/m <sup>3</sup> )	5.2 mg/m <sup>3</sup>
Alberta	OEL TWA (ppm)	2 ppm
British Columbia	OEL STEL (ppm)	4 ppm
British Columbia	OEL TWA (ppm)	2 ppm
Manitoba	OEL STEL (ppm)	4 ppm
Manitoba	OEL TWA (ppm)	2 ppm
New Brunswick	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
New Brunswick	OEL STEL (ppm)	4 ppm
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	5.2 mg/m <sup>3</sup>
New Brunswick	OEL TWA (ppm)	2 ppm
Newfoundland & Labrador	OEL STEL (ppm)	4 ppm
Newfoundland & Labrador	OEL TWA (ppm)	2 ppm
Nova Scotia	OEL STEL (ppm)	4 ppm
Nova Scotia	OEL TWA (ppm)	2 ppm
Nunavut	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Nunavut	OEL STEL (ppm)	4 ppm
Nunavut	OEL TWA (mg/m <sup>3</sup> )	5.2 mg/m <sup>3</sup>
Nunavut	OEL TWA (ppm)	2 ppm
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Northwest Territories	OEL STEL (ppm)	4 ppm

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Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	5.2 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (ppm)	2 ppm
Ontario	OEL STEL (ppm)	4 ppm
Ontario	OEL TWA (ppm)	2 ppm
Prince Edward Island	OEL STEL (ppm)	4 ppm
Prince Edward Island	OEL TWA (ppm)	2 ppm
Québec	VECD (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Québec	VECD (ppm)	4 ppm
Québec	VEMP (mg/m <sup>3</sup> )	5.2 mg/m <sup>3</sup>
Québec	VEMP (ppm)	2 ppm
Saskatchewan	OEL STEL (ppm)	4 ppm
Saskatchewan	OEL TWA (ppm)	2 ppm
Yukon	OEL STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Yukon	OEL STEL (ppm)	4 ppm
Yukon	OEL TWA (mg/m <sup>3</sup> )	5 mg/m <sup>3</sup>
Yukon	OEL TWA (ppm)	2 ppm

### Sulfuric acid (7664-93-9)

Mexico	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
USA IDLH	US IDLH (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup>
Alberta	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Alberta	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
British Columbia	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup> (Thoracic, contained in strong inorganic acid mists)
Manitoba	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
New Brunswick	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Newfoundland & Labrador	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Nova Scotia	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Nunavut	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Nunavut	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Ontario	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Prince Edward Island	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Québec	VECD (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
Québec	VEMP (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Saskatchewan	OEL STEL (mg/m <sup>3</sup> )	0.6 mg/m <sup>3</sup>
Saskatchewan	OEL TWA (mg/m <sup>3</sup> )	0.2 mg/m <sup>3</sup>
Yukon	OEL STEL (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
Yukon	OEL TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>

### 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. Gas detectors should be used when flammable gases/vapors 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/flammable resistant/retardant clothing.

**Hand Protection:** Wear chemically resistant protective gloves. Acid-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 yellow
Odor	: Acrid, choking
Odor Threshold	: Not available
pH	: < 1
Relative Evaporation Rate (butylacetate = 1)	: ~ 1
Melting Point	: Not available
Freezing Point	: -41.1°C (-42°F) (Nitric acid 98%), -1.11°C (30°F) (Sulfuric acid 98%)
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: 51 mmHg @25°C (77°F) (Nitric Acid 98%), <0.3 mmHg @252°C (485.6°F) (Sulfuric Acid 98%)
Relative Vapor Density at 20 °C	: >1 (Nitric Acid), 3.4 (Sulfuric Acid)
Relative Density	: Not available
Specific Gravity	: 1.5 - 1.8
Solubility	: Miscible.
Viscosity	: 1.0cp @20°C (68°F) (Nitric Acid 98%), 25.0cp @20°C (68°F) (Sulfuric acid 98%)
Volatility	: 100%
Explosion Data – Sensitivity to Mechanical Impact	: Not available
Explosion Data – Sensitivity to Static Discharge	: Not available

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### 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. Contact with metals may evolve flammable hydrogen gas.

**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. Combustible materials.

**Hazardous Decomposition Products:** Thermal decomposition generates : Corrosive vapors. Nitrogen oxides. Sulfur oxides. Explosive hydrogen gas. Toxic vapors.

### 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:** Inhalation of mists containing sulfuric acid may cause cancer.

**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. May cause cancer by inhalation of mists.

**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:**

<b>Nitric acid (7697-37-2)</b>	
LC50 Inhalation Rat (mg/l)	0.13 mg/l (Exposure time: 4 h)
LC50 Inhalation Rat (ppm)	67 ppm/4h
<b>Sulfuric acid (7664-93-9)</b>	
LD50 Oral Rat	2140 mg/kg
LC50 Inhalation Rat (mg/l)	510 mg/m <sup>3</sup> (Exposure time: 2 h)
<b>Sulfuric acid (7664-93-9)</b>	
IARC Group	1

### SECTION 12: ECOLOGICAL INFORMATION

**Toxicity** Not classified

<b>Sulfuric acid (7664-93-9)</b>	
LC50 Fish 1	500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])

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### Persistence and Degradability

#### Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)

Persistence and Degradability Not established.

### Bioaccumulative Potential

#### Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)

Bioaccumulative Potential Not established.

#### Nitric acid (7697-37-2)

Log Pow -2.3 (at 25 °C)

#### Sulfuric acid (7664-93-9)

BCF fish 1 (no bioaccumulation)

**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.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 In Accordance with DOT

**Proper Shipping Name** : NITRATING ACID MIXTURES *with more than 50% nitric acid*  
**Hazard Class** : 8  
**Identification Number** : UN1796  
**Label Codes** : 8,5.1  
**Packing Group** : I  
**ERG Number** : 157



### 14.2 In Accordance with IMDG

**Proper Shipping Name** : NITRATING ACID MIXTURE  
**Hazard Class** : 8  
**Identification Number** : UN1796  
**Packing Group** : I  
**Label Codes** : 8,5.1  
**EmS-No. (Fire)** : F-A  
**EmS-No. (Spillage)** : S-Q



### 14.3 In Accordance with IATA

**Proper Shipping Name** : NITRATING ACID MIXTURE  
**Packing Group** : I  
**Identification Number** : UN1796  
**Hazard Class** : 8  
**Label Codes** : 8,5.1  
**ERG Code (IATA)** : 8X



### 14.4 In Accordance with TDG

**Proper Shipping Name** : NITRATING ACID MIXTURE  
**Packing Group** : I  
**Hazard Class** : 8  
**Identification Number** : UN1796  
**Label Codes** : 8,5.1





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### SECTION 15: REGULATORY INFORMATION

#### US Federal Regulations

<b>Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard Reactive hazard Delayed (chronic) health hazard
<b>Nitric acid (7697-37-2)</b>	
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)	
<b>SARA Section 302 Threshold Planning Quantity (TPQ)</b>	1000
<b>SARA Section 313 - Emission Reporting</b>	1.0 %
<b>Sulfuric acid (7664-93-9)</b>	
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)	
<b>SARA Section 302 Threshold Planning Quantity (TPQ)</b>	1000
<b>SARA Section 313 - Emission Reporting</b>	1.0 % (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

#### US State Regulations

<b>Sulfuric acid (7664-93-9)</b>	
<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
<b>Nitric acid (7697-37-2)</b>	
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) 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 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	

# Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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  
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  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
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  
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

### **Sulfuric acid (7664-93-9)**

Strong inorganic acid mists containing sulfuric acid are present on the State of California list of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity (Cal Prop 65).

U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Acute  
U.S. - California - SCAQMD - Toxic Air Contaminants - Non-Cancer Chronic  
U.S. - California - Toxic Air Contaminant List (AB 1807, AB 2728)  
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (30 min)  
U.S. - Connecticut - Hazardous Air Pollutants - HLVs (8 hr)  
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 Contaminant Carcinogens  
U.S. - Illinois - Toxic Air Contaminants  
U.S. - Louisiana - Reportable Quantity List for Pollutants  
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants  
U.S. - Massachusetts - Allowable Ambient Limits (AALs)

# Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

U.S. - Massachusetts - Allowable Threshold Concentrations (ATCs)  
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  
U.S. - Massachusetts - Right To Know List  
U.S. - Massachusetts - Threshold Effects Exposure Limits (TEELs)  
U.S. - Massachusetts - Toxics Use Reduction Act  
U.S. - Michigan - Occupational Exposure Limits - TWAs  
U.S. - Michigan - Polluting Materials List  
U.S. - Minnesota - Chemicals of High Concern  
U.S. - Minnesota - Hazardous Substance List  
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  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - New Jersey - Special Health Hazards Substances List  
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 - 8-Hour  
U.S. - Ohio - Extremely Hazardous Substances - Threshold Quantities  
U.S. - Oregon - Permissible Exposure Limits - TWAs  
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List  
U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - 1-Hour  
U.S. - Rhode Island - Air Toxics - Acceptable Ambient Levels - Annual  
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 - TWAs  
U.S. - Texas - Effects Screening Levels - Long Term  
U.S. - Texas - Effects Screening Levels - Short Term  
U.S. - Vermont - Permissible Exposure Limits - TWAs  
U.S. - Washington - Permissible Exposure Limits - STELs  
U.S. - Washington - Permissible Exposure Limits - TWAs  
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

### Canadian Regulations

#### Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)

WHMIS Classification	Class E - Corrosive Material Class C - Oxidizing Material Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
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# Mixed Nitrating Acid, Greater Than 50% (HNO<sub>3</sub>)

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<b>Nitric acid (7697-37-2)</b>	
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
<b>Sulfuric acid (7664-93-9)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory. Listed on the Canadian Ingredient Disclosure List	
WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects 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.

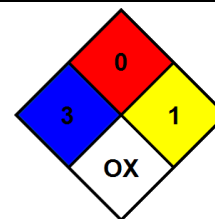
### SECTION 16: OTHER INFORMATION

**Revision date** : November 2017  
**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:

Carc. 1A	Carcinogenicity Category 1A
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
H350	May cause cancer

**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** : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.  
**NFPA Specific Hazard** : OX - This denotes an oxidizer, a chemical which can greatly increase the rate of combustion/fire.



#### Party Responsible for the Preparation of This Document

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*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