

# Safety Data Sheet

## SECTION 1 – IDENTIFICATION

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

Dyno Nobel Inc.

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Salt Lake City, Utah 84121

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SDS #: 1026

Date: 05/05/2015

Supersedes: 12/20/2012

### Product Identifier

Product Form: Mixture

Product Name: Mixed Acid

### Other Means of Identification

Product Class: Nitrating Acid

### Intended Use of the Product

Industrial applications

### Emergency Telephone Number

FOR 24 HOUR **EMERGENCY**, CALL CHEMTREC (USA) 800-424-9300  
CANUTEC (CANADA) 613-996-6666

## SECTION 2 – HAZARD(S) 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
Aquatic Acute 3	H402

#### Label Elements

#### GHS-US Labeling

#### Hazard Pictograms (GHS-US)



#### Signal Word (GHS-US)

#### Hazard Statements (GHS-US)

: Danger

: H272 - May intensify fire; oxidizer

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H402 - Harmful to aquatic life

#### Precautionary Statements (GHS-US)

: P210 - Keep away from open flames, heat, sparks, hot surfaces. - No smoking.

P220 - Keep/Store away from combustible materials.

P221 - Take any precaution to avoid mixing with combustible materials.

P234 - Keep only in original container.

P260 - Do not breathe mist, spray, vapors.

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

P273 - Avoid release to the environment.

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

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.

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P304+P340 - IF INHALED: Remove person 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.  
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 to extinguish.  
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 according to local, regional, national, territorial, provincial, and international regulations.

## Other Hazards

**Hazards Not Otherwise Classified (HNOC):** When diluting, always add acid to water and not water to acid. Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

### Mixture

Name	Product identifier	% (w/w)	Ingredient Classification (GHS-US)
Sulfuric acid	(CAS No) 7664-93-9	15 - 40, 40 - 70, 60 - 100	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402
Nitric acid	(CAS No) 7697-37-2	15 - 40, 40 - 70, 60 - 100	Ox. Liq. 3, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

Multiple WHMIS ranges have been utilized due to varying composition.

### Full text of H-phrases: see section 16

Ingredients, other than those mentioned above, as used in this product are not hazardous as defined under current Department of Labor regulations, or are present in deminimus concentrations (less than 0.1% for carcinogens, less than 1.0% for other hazardous materials).

## 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:** Remove to fresh air and keep at rest in a position comfortable for breathing. If exposed seek immediate medical attention.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 60 minutes. If exposed seek immediate medical attention.

**Eye Contact:** Rinse cautiously with water for at least 60 minutes. Seek immediate medical attention.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. If ingested seek immediate medical attention.

### 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 serious burns.

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

**Ingestion:** Ingestion is likely to be harmful or have adverse effects.

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**Chronic Symptoms:** None expected under normal conditions of use.

## Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed, seek medical attention.

## SECTION 5 - FIRE-FIGHTING MEASURES

### Extinguishing Media

Use water spray to cool non-leaking fire-exposed containers and to reduce and knock down vapors. **Do not** use solid water streams near ruptured tanks or spills of sulfuric acid. Acid reacts violently with water and can splatter acid on personnel. Apply water from as far away as possible and avoid directing water into the acid. Neutralize small amounts of spilled acid with crushed limestone, soda ash or lime. Wear self-contained breathing apparatus and full fire fighting protective gear.

**Suitable Extinguishing Media:** Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. A heavy water stream may spread burning liquid.

### Special Hazards Arising From the Substance or Mixture

Will emit oxides of nitrogen and sulfur upon heating. Strong oxidizer. May cause spontaneous combustion when in contact with organic or combustible materials. Reacts vigorously with water to liberate heat, oxides of nitrogen and sulfur and acid fumes.

**Fire Hazard:** Not flammable but will support combustion. May intensify fire; oxidizer.

**Explosion Hazard:** Risk of explosion in contact with reducing agents.

**Reactivity:** Contact with metals may evolve flammable hydrogen gas. Violent exothermic reaction with water (moisture): release of corrosive gases/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:** Avoid all contact with skin, eyes, or clothing. Avoid breathing vapor, mist, or spray. Gas/vapor is heavier than air. May accumulate in confined spaces, particularly at or below ground level.

### 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:** Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

### Environmental Precautions

Prevent entry to sewers and public waters.

### Methods and Material for Containment and Cleaning Up

**For Containment:** Absorb and/or contain spill with inert material, then place in suitable container. Do not take up in combustible material such as saw dust or cellulosic material.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. Cautiously neutralize spilled liquid.

### Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection

## SECTION 7 - HANDLING AND STORAGE

### Precautions for Safe Handling

**Additional Hazards When Processed:** May be corrosive to metals.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and forearms thoroughly after handling. Do not eat, drink or smoke when using this product.

### Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

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

**Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers.

**Special Rules on Packaging:** Store in original container or corrosive resistant and/or lined container.

**Specific End Use(s)**

Industrial applications

## 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
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

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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
<b>Sulfuric acid (7664-93-9)</b>		
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>
<b>Exposure Controls</b>		
<b>Appropriate Engineering Controls:</b> Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Mechanical ventilation and/or local exhaust is indicated where needed to meet TLV requirement.		
<b>Personal Protective Equipment:</b> Protective goggles. Face shield. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.		

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**Materials for Protective Clothing:** Neoprene or vinyl gloves required and suitable body protection that provides acid resistant protection against splash and skin contact.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection:** Acid proof goggles and face shield should be required where acid is transferred, sampled, or where persons are otherwise potentially exposed. Eye baths should be provided when direct contact is possible.

**Skin and Body Protection:** Neoprene or vinyl gloves should be worn. Where spill or splash potential exists, rubberized aprons or chemical resistant suits are strongly recommended.

**Respiratory Protection:** For concentrations above the exposure limits, use full face supplied air respirator approved by NIOSH for nitric acid, nitrogen oxide gases or mists, sulfuric acid, and sulfur oxides. **Chemical cartridge or canister respirators are not suitable for nitric acid or nitrogen oxide use.**

**Environmental Exposure Controls:** Do not allow the product to be released into the environment.

**Consumer Exposure Controls:** Do not eat, drink or smoke during use

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

<b>Physical State</b>	:	Liquid
<b>Appearance</b>	:	Colorless to light yellow, cloudy liquid
<b>Odor</b>	:	Acrid odor
<b>Odor Threshold</b>	:	Not available
<b>pH</b>	:	Not available
<b>Relative Evaporation Rate (butylacetate=1)</b>	:	< 1
<b>Melting Point</b>	:	Not available
<b>Freezing Point</b>	:	Not available
<b>Boiling Point</b>	:	82 - 132 °C (180 - 270 °F)
<b>Flash Point</b>	:	Not available
<b>Auto-ignition Temperature</b>	:	Not available
<b>Decomposition Temperature</b>	:	Not available
<b>Flammability (solid, gas)</b>	:	Not available
<b>Lower Flammable Limit</b>	:	Not available
<b>Upper Flammable Limit</b>	:	Not available
<b>Vapor Pressure</b>	:	Not available
<b>Relative Vapor Density at 20 °C</b>	:	2.5 - 3 (Air=1)
<b>Relative Density</b>	:	Not available
<b>Density</b>	:	1.55 - 1.85 g/cc
<b>Specific Gravity</b>	:	Not available
<b>Solubility</b>	:	Complete in water
<b>Partition coefficient: n-octanol/water</b>	:	Not available
<b>Viscosity</b>	:	Not available
<b>Explosion Data – Sensitivity to Mechanical Impact</b>	:	Not expected to present an explosion hazard due to mechanical impact.
<b>Explosion Data – Sensitivity to Static Discharge</b>	:	Not expected to present an explosion hazard due to static discharge.

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## SECTION 10 - STABILITY AND REACTIVITY

**Reactivity:** Contact with metals may evolve flammable hydrogen gas. Violent exothermic reaction with water (moisture): release of corrosive gases/vapors.

**Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).

**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:** Strong acids. Strong bases. Strong oxidizers. Metals. Organic materials. Chlorides.

**Hazardous Decomposition Products:** Nitrogen oxides. Sulfur oxides. Thermal decomposition generates corrosive 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.

**Serious Eye Damage/Irritation:** Causes serious eye damage.

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Teratogenicity:** Not classified

**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 serious burns.

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

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** None expected under normal conditions of use.

### Information on Toxicological Effects - Ingredient(s)

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

**LD50 Oral Rat**

2140 mg/kg

**LC50 Inhalation Rat**

510 mg/m<sup>3</sup> (Exposure time: 2 h)

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

**IARC Group**

1

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

**Ecology - General:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

**Ecology - Water:** Harmful to aquatic life.

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

**LC50 Fish 1**

500 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [static])

**LC 50 Fish 2**

42 mg/l (Exposure time: 96 h - Species: Gambusia affinis [static])

**Persistence and Degradability** Not available

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## Bioaccumulative Potential

### 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 >50% nitric acid

**Hazard Class** : 8

**Identification Number** : UN1796

**Label Codes** : 8,5.1

**Packing Group** : I (>50% Nitric Acid)

Packing Group : II (<50% Nitric Acid)

**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 with >50% nitric acid

**Packing Group** : I

**Hazard Class** : 8

**Identification Number** : UN1796

**Label Codes** : 8,5.1



## SECTION 15 - REGULATORY INFORMATION

### US Federal Regulations

#### Mixed Acid

### SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard  
Fire hazard

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## 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)

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

## Sulfuric acid (7664-93-9)

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

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

<b>U.S. - California - Proposition 65 - Carcinogens List</b>	WARNING: This product contains chemicals known to the State of California to cause cancer.
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### 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)  
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

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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  
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)  
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

# Safety Data Sheet

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 - Threshold Effects Exposure Limits (TELs)  
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  
RTK - 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  
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. - 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

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

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

Listed on the Canadian Ingredient Disclosure List



# Safety Data Sheet

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.	
WHMIS Classification	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	: 05/05/2015
Other Information	: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

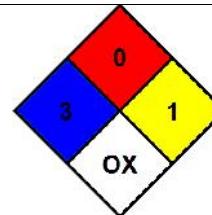
### GHS Full Text Phrases:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
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
H402	Harmful to aquatic life

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.
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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

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