

1. Identification of the substance/preparation and of the company/undertaking

Product Name Nitrolox 777

UN/ID No. UN2031

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Liquid Acid Cleaner

Uses advised against No information available

Supplier Address

Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

Emergency telephone number

Chemtrec 1-800-424-9300

2. Hazards identification

Classification

OSHA Regulatory Status

Acute Toxicity-Inhalation	Category 4
Skin Corrosion/Irritation	Category 1 Sub-category A
Serious Eye Damage/Irritation	Category 1
Oxidizing Liquid	Category 3
Corrosive to Metals	Category 1

Label Elements

Signal word: **Danger**

Hazard Statements

Harmful if inhaled.
Causes severe skin burns and eye damage.
May intensify fire; oxidizer.
May be corrosive to metals.

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use only in well-ventilated areas. Keep away from heat. Keep/store away from clothing/combustible material. Take any precautions to avoid mixing with combustibles. Keep only in original container.

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician. Specific treatment (see Section 4 on the SDS).

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

IF INHALED: Remove victim to fresh air and keep comfortable for breathing.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

In case of fire: Use CO₂, dry chemical, or foam for extinction.

Absorb spillage to prevent material damage.

Precautionary Statements - Storage

Store locked up.
Store in a corrosive resistant container.

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

Other Information

Harmful to aquatic life



3. Composition/information on ingredients

Chemical Name	CAS Number	% by Weight
Nitric Acid	7697-37-2	35 - 45

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

General advice

Get immediate medical attention.

Eye contact

Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.

Skin Contact

Flush with water for 15 minutes. Get medical attention. Remove contaminated clothing and wash before reuse.

Inhalation

Remove victim from immediate source of exposure to fresh air. If breathing is difficult, administer oxygen if available. If victim is not breathing, administer CPR. If individual experiences nausea, headache, or dizziness, get immediate medical attention.

Ingestion

Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person

Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms

Corrosive. Causes tissue destruction, permanent damage to the cornea, blindness. Causes irritation (possibly severe), burns to the skin. Mists may cause lung irritation, shortness of breath, fluid in lungs. Ingestion causes nausea, vomiting, diarrhea, corrosion, burns to mouth and esophagus, abdominal pain, chest pain, shortness of breath, seizures, death.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. Fire-fighting measures

Suitable extinguishing media

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

Unsuitable extinguishing media

Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

If the stock solution container breaks, the solution should be handled with care as it is corrosive. May produce poisonous or irritating gas or fumes. This material is reactive with many materials. May intensify a fire.

Hazardous combustion products

Nitrogen oxides

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. Use water spray to cool fire exposed containers. Move containers from fire area if you can do it without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions

Evacuate nonessential personnel. Ventilate area. Wear appropriate personal protection equipment. Eliminate sources of ignition.

Environmental precautions

See Section 12 for additional ecological information. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods for containment

Completely contain spilled material with dikes or sand bags, etc. Stop leak if you can do it without risk.

Methods for cleaning up

Recover as much material as possible into containers for disposal or reuse. Remaining material may be diluted with water and neutralized. Flush spill area with water. Neutralization products, both solid and liquid, must be recovered for disposal.

7. Handling and storage**Precautions for safe handling****Advice on safe handling**

Do not get in eyes, on skin, or clothing. Do not breathe vapors or mists. Do not ingest. Wash thoroughly after handling. Wear protective clothing/equipment. Use with adequate ventilation. Keep away from heat sources and open flame.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials. Do not contaminate food or feed stuffs. Avoid prolonged exposure to heat and air. Keep/store only in original container. Wash hands before eating, drinking, using tobacco, applying make-up or using the toilet. Do not store, use, and/or consume foods, beverages, tobacco in areas where this product is stored.

Incompatible materials

Oxidizing agent. Acids. Bases. Metals. Alcohols. Alkali. Organic material. Strong bases. Strong acids. Reducing agent. Cyanide compounds. Sulfides. Carbides.

8. Exposure controls/personal protection**Control parameters****Exposure Guideline**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Nitric Acid 7697-37-2	STEL: 4 ppm TWA: 2 ppm	TWA: 2 ppm TWA: 5 mg/m 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

Appropriate engineering controls

Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear protective splash proof safety goggles. Additional full face protection is recommended if splashing is a possibility.

Skin and body protection

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

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 contaminated clothing before reuse.

9. Physical and chemical properties**Information on basic physical and chemical properties**

Physical state	Liquid
Color	Clear, colorless
Odor	Acrid odor
Odor threshold	No information available
pH	<1
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 upper limit in air	No information available
Flammability lower limit in air	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	1.240 - 1.260
Water solubility	Soluble in water
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available

10. Stability and reactivity

Reactivity

No information available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

High temperatures might lead to formation of nitrogen dioxide. Contact with water may cause violent reaction with evolution of heat. To dilute: Add product slowly to lukewarm water; not water to product.

Incompatible materials

Oxidizing agent. Acids. Bases. Metals. Alcohols. Alkali. Organic material. Strong bases. Strong acids. Reducing agent. Cyanide compounds. Sulfides. Carbides.

Hazardous Decomposition Products

At flame temperatures, toxic nitrogen oxides (NOx)

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation	Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.
Eye contact	Causes serious eye damage. May cause irreversible damage to eyes.
Skin Contact	Contact causes severe skin irritation and possible burns.
Ingestion	Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Nitric Acid 7697-37-2	-	-	= 67 ppm (Rat) 4 h

Information on toxicological effects

Symptoms See section 4

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
Nitric Acid 7697-37-2	-	Group 2A	-	X

Reproductive toxicity	No information available
STOT - single exposure	No information available
STOT - repeated exposure	No information available

Aspiration hazard No information available

Numerical measures of toxicity - Product Information

ATEmix (oral) 38250
 ATEmix (dermal) 68250
 ATEmix (inhalation-dust/mist) 5.3
 ATEmix (inhalation-vapor) 168 mg/l

12. Ecological information**Ecotoxicity**

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Nitric Acid 7697-37-2	-	72: 96 h Gambusia affinis mg/L LC50	-

Persistence and degradability No information available**Bioaccumulation** No information available

Chemical Name	Partition coefficient
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	California Hazardous Waste Status
Nitric Acid 7697-37-2	Toxic Corrosive Ignitable

14. Transport information**DOT****UN/ID No.** UN2031**Proper shipping name** Nitric Acid**Hazardous ingredients****Hazard class** 8**Packing group** II**15. Regulatory information****US Federal Regulations****SARA 313**

This product contains the following EPCRA section 313 chemical(s) subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know-Act of 1986 (40 CFR 372):

Chemical Name	% by Weight
Nitric Acid 7697-37-2	35 - 45

SARA 311/312 Hazards

Acute Toxicity-Inhalation
 Skin Corrosion/Irritation

Serious Eye Damage/Irritation
 Oxidizing Liquid
 Corrosive to Metals

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name	Reportable Quantities	Toxic Pollutants	Priority Pollutants	Hazardous Substances
Nitric Acid 7697-37-2	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

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

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA Health hazards 3 Flammability 0 Instability 1 **Physical and Chemical Properties**
HMIS Health hazards 3 Flammability 0 Physical hazards 1 **Personal protection** X
 Prepared By L. Tipka
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Disclaimer

The information provided in this Material 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