Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • Nitric Acid

Synonyms • Aqua Fortis; Aqueous Nitric Acid Solution; Azotic Acid; Hydrogen Nitrate

Chemical Category

• Nitrate Compounds

Molecular Formula

• :H 1:N 1:O 3:

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Industrial uses

1.3 Details of the supplier of the safety data sheet

Manufacturer • Air Liquide

2700 Post Oak Blvd. Houston, TX 77056 United States www.us.airliquide.com

www.us.airliquide.com sds@airliquide.com

Telephone (Technical) • 713-896-2896 Telephone (Technical) • 800-819-1704

1.4 Emergency telephone number

Manufacturer 800-424-9300 - CHEMTREC

Manufacturer +1 703-527-3887 - Outside United States

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

• Oxidizing Liquids 3 - H272 Skin Corrosion 1A - H314

• Oxidizing (O)
Corrosive (C)

R8, R35

2.2 Label Elements

CLP

DANGER





Hazard statements . H314 - Causes severe skin burns and eye damage

H272 - May intensify fire; oxidizer

Precautionary statements

Prevention • P210 - Keep away from heat.

P220 - Keep/Store away from clothing and other combustible materials.

P221 - Take any precaution to avoid mixing with combustibles

P260 - Do not breathe mist/vapours/spray. P264 - Wash thoroughly after handling.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

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

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

comfortable for breathing.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P321 - Specific treatment, see supplemental first aid information.

P363 - Wash contaminated clothing before reuse.

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.

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

Storage/Disposal •

P405 - Store locked up.

P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD





Risk phrases • R8 - Contact with combustible material may cause fire.

R35 - Causes severe burns.

Safety phrases . S37 - Wear suitable gloves.

S36 - Wear suitable protective clothing.

S39 - Wear eye/face protection.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other Hazards

CLP

According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD

This product is considered dangerous according to the European Directive 67/548/EEC.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

Oxidizing Liquids 3 - H272 Skin Corrosion 1A - H314 Serious Eye Damage 1 - H318

2.2 Label elements

OSHA HCS 2012

DANGER





Hazard statements • May intensify fire; oxidizer - H272

Causes severe skin burns and eye damage - H314

Causes serious eye damage - H318

Precautionary statements

Prevention . Keep away from heat. - P210

Keep/Store away from clothing and other combustible materials. - P220

Take any precaution to avoid mixing with combustibles - P221

Do not breathe mist/vapours/spray. - P260 Wash thoroughly after handling. - P264

Wear protective gloves/protective clothing/eye protection/face protection. - P280

Response .

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

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

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353

Specific treatment, see supplemental first aid information. - P321

Wash contaminated clothing before reuse. - P363

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,

if present and easy to do. Continue rinsing. - P305+P351+P338 Immediately call a POISON CENTER or doctor/physician. - P310

IF SWALLÓWED: Rinse mouth. Do NOT induce vomiting. - P301+P330+P331

Storage/Disposal •

Store locked up. - P405

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

2.3 Other hazards

OSHA HCS 2012

Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

Oxidizina - C Corrosive - E

2.2 Label elements

WHMIS





Oxidizing - C Corrosive - E

2.3 Other hazards

WHMIS

In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

NFPA





Section 3 - Composition/Information on Ingredients

3.1 Substances

| | Composition | | | | | | |
|------------------|--|---------------|---|---|----------|--|--|
| Chemical Name | Identifiers | % | LD50/LC50 | Classifications According to Regulation/Directive | Comments | | |
| Nitric acid | CAS:7697-37-2 EC Number:231- 714-2 | 40% TO 70% | Inhalation-Rat LC50 • 67 ppm 4 Hour(s) | EU DSD/DPD: Annex I - C; R35 O; R8 EU CLP: Annex VI: Ox. Liq. 3; Skin Corr. 1A; H272; H314 OSHA HCS 2012: Skin Corr. 1A; Eye Dam. 1; Ox. Liq. 3 | NDA | | |

3.2 Mixtures

 Material does not meet the criteria of a mixture in accordance with Regulation (EC) No 1272/2008.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial
respiration if victim is not breathing. Do not use mouth-to-mouth method if victim
inhaled the substance; give artificial respiration with the aid of a pocket mask
equipped with a one-way valve or other proper respiratory medical device. Get medical
attention immediately.

Skin

 For minor skin contact, avoid spreading material on unaffected skin. In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
 Remove and isolate contaminated clothing. Get medical attention immediately.

Eye

 Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Get medical attention immediately.

Ingestion

 If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Give plenty of water to drink. Do not use mouth-to-mouth method if victim ingested the substance. Obtain medical attention immediately if ingested.

4.2 Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

 All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media . LARGE FIRES: Dry chemical, CO2, alcohol-resistant foam or water spray. SMALL FIRES: Dry chemical, CO2 or water spray.

Unsuitable Extinguishing Media

No data available

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

Containers may explode when heated.

Acid reacts with most metals to release hydrogen gas, which can form explosive mixtures with air.

May explode from heat or contamination.

May ignite combustibles (wood, paper, oil, clothing, etc.)

Some may decompose explosively when heated or involved in a fire. These substances will accelerate burning when involved in a fire.

Hazardous Combustion Products

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive fumes.

5.3 Advice for firefighters

Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is

Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Wear positive pressure self-contained breathing apparatus (SCBA).

SMALL FIRES: Move containers from fire area if you can do it without risk.

Runoff from fire control may cause pollution.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

 Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Dike to collect large liquid spills.

A vapor suppressing foam may be used to reduce vapors. Use water spray to reduce vapors or divert vapor cloud drift.

Neutralize residue with neutralizing agent appropriate for acidic materials. Test area with litmus paper to ensure neutralization is complete.

6.4 Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

Handle and open container with care. Use only with adequate ventilation. Keep away from heat, sparks, and flame. Use caution when combining with water; DO NOT add water to corrosive liquid, ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist, vapours, spray. Do not get in

eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Keep container tightly closed. Store in a cool/low-temperature, well-ventilated dry
place away from heat and ignition sources. Keep away from incompatible materials.
Inspect all incoming containers before storage, to ensure containers are properly
labeled and not damaged.

7.3 Specific end use(s)

Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

| | Exposure Limits/Guidelines | | | | | |
|----------------------------|----------------------------|--|-------------------------------|---------------------------------|---|---|
| | Result | ACGIH | Canada Ontario | Canada Quebec | Europe | France |
| Nitric acid (7697-37-2) | STELs | 4 ppm STEL | 4 ppm STEL | 4 ppm STEV; 10 mg/m3 STEV | 1 ppm STEL; 2.6 mg/m3 STEL | 1 ppm STEL [VLCT] (indicative limit); 2.6 mg/m3 STEL [VLCT] (indicative limit) |
| | TWAs | 2 ppm TWA | 2 ppm TWA | 2 ppm TWAEV; 5.2 mg/m3 TWAEV | Not established | Not established |
| | | Ex | posure Limits/Gu | idelines (Con't.) | | |
| | Result | Germany TRGS | Ireland | Israel | Italy | NIOSH |
| Nitrio anid | STELs | Not established | 1 ppm STEL; 2.6 mg/m3 STEL | 4 ppm STEL | 1 ppm STEL; 2.6 mg/m3 STEL | 4 ppm STEL; 10 mg/m3 STEL |
| Nitric acid (7697-37-2) | TWAs | 1 ppm TWA AGW (exposure factor 1); 2.6 mg/m3 TWA AGW | Not established | 2 ppm TWA | Not established | 2 ppm TWA; 5 mg/m3 TWA |
| | | Ex | posure Limits/Gu | idelines (Con't.) | | |
| | Result | OSHA | OSHA Vacated | Portugal | Spain | Sweden |
| Nitric acid | STELs | Not established | 4 ppm STEL; 10 mg/m3 STEL | 4 ppm STEL [VLE-CD | 1 ppm STEL [VLA- EC]; 2.6 mg/m3 STEL [VLA-EC] | 5 ppm STV; 13 mg/m3 STV |
| (7697-37-2) | TWAs | 2 ppm TWA; 5 mg/m3 TWA | 2 ppm TWA; 5 mg/m3 TWA | 2 ppm TWA [VLE-MP] | Not established | 2 ppm LLV; 5 mg/m3 LLV |

8.2 Exposure controls

Engineering Measures/Controls

 Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

 Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face Skin/Body

Controls

Wear chemical splash safety goggles.Wear appropriate gloves.

Environmental Exposure

 Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

LLV = Limit Level Value is the exposure limit for 8-hour work day

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEV = Short Term Exposure Value

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

| Material Description | | | |
|-------------------------------------|-------------------------|------------------------|--|
| Physical Form | Liquid | Appearance/Description | Colorless to yellowish, corrosive liquid with an acrid odor. |
| Color | Colorless to yellowish. | Odor | Acrid |
| Odor Threshold | Data lacking | | |
| General Properties | | - | |
| Boiling Point | 121 C(249.8 F) | Melting Point | -42 C(-43.6 F) |
| Decomposition Temperature | Data lacking | рН | < 1 |
| Specific Gravity/Relative Density | 1.41 Water=1 | Water Solubility | Miscible |
| Viscosity | Data lacking | Explosive Properties | Data lacking |
| Oxidizing Properties: | Data lacking | | |
| Volatility | | - | |
| Vapor Pressure | 7 mmHg (torr) | Vapor Density | 2.17 Air=1 |
| Evaporation Rate | Data lacking | | |
| Flammability | | • | |
| Flash Point | Not relevant | UEL | Not relevant |
| LEL | Not relevant | Autoignition | Not relevant |
| Flammability (solid, gas) | Data lacking | | |
| Environmental | | - | |
| Octanol/Water Partition coefficient | -2.3 Kow | | |

9.2 Other Information

No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

• No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4 Conditions to avoid

Excess heat, sparks, open flame.

10.5 Incompatible materials

 Nitric Acid is incompatible with combustible materials, readily oxidizable materials, organic solvents, metal powders, carbides, cyanides, sulfides, and alkalis.

10.6 Hazardous decomposition products

Thermal decomposition of Nitric Acid can generate nitrogen oxides.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

| | CAS | |
|----------------|-----------|---|
| Nitric Acid | 7697-37-2 | Acute Toxicity: Inhalation-Rat LC50 • 130 mg/m³ 4 Hour(s); Reproductive: Ingestion/Oral-Rat TDLo • 2345 mg/kg (18D preg); Reproductive Effects:Effects on Newborm:Biochemical and metabolic |

| GHS Properties | Classification |
|-------------------------------|---|
| Acute toxicity | EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met |
| Aspiration Hazard | EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met |
| Carcinogenicity | EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met |
| Germ Cell Mutagenicity | EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met |
| Skin corrosion/Irritation | EU/CLP • Skin Corrosion 1A OSHA HCS 2012 • Skin Corrosion 1A |
| Skin sensitization | EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met |
| STOT-RE | EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met |
| STOT-SE | EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met |
| Toxicity for Reproduction | EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met |
| Respiratory sensitization | EU/CLP ◆ Classification criteria not met OSHA HCS 2012 ◆ Classification criteria not met |
| Serious eye damage/Irritation | EU/CLP • Classification criteria not met OSHA HCS 2012 • Serious Eye Damage 1 |

Potential Health Effects

Inhalation

Acute (Immediate)

Chronic (Delayed)

- May cause corrosive burns irreversible damage.
- Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

Acute (Immediate)

Chronic (Delayed)

- Causes severe skin burns and eye damage.
- Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

Acute (Immediate)

Chronic (Delayed)

- Causes serious eye damage.
- Repeated or prolonged exposure to corrosive materials or fumes may cause

conjunctivitis.

Ingestion

Acute (Immediate)
Chronic (Delayed)

- May cause irreversible damage to mucous membranes.
- Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal distrubances.

Key to abbreviations

LC = Lethal Concentration
TC = Toxic Concentration

Section 12 - Ecological Information

12.1 Toxicity

Material data lacking.

12.2 Persistence and degradability

Material data lacking.

12.3 Bioaccumulative potential

Material data lacking.

12.4 Mobility in Soil

Material data lacking.

12.5 Results of PBT and vPvB assessment

No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

| | 14.1 UN number | 14.2 UN proper shipping name | 14.3 Transport hazard class(es) | 14.4 Packing group | 14.5 Environmental hazards |
|-----------|-------------------|------------------------------|---------------------------------|-----------------------|-------------------------------|
| DOT | UN2031 | Nitric acid | 5.1,8 | II | NDA |
| TDG | UN2031 | NITRIC ACID | 5.1,8 | II | NDA |
| IMO/IMDG | UN2031 | NITRIC ACID | 5.1,8 | II | NDA |
| IATA/ICAO | UN2031 | Nitric acid | 5.1,8 | II | NDA |

14.6 Special precautions for user

 According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

14.7 Transport in bulk

Not relevant.

according to Annex II of MARPOL 73/78 and the IBC Code

14.8 Other information

DOT • Nitric acid has a reportable quantity of 100 lbs (45.4 kg) as listed in Appendix A to 49 CFR 172.101.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

| State Right To Know | | | | | |
|------------------------|-----------|-----|-----|-----|--|
| Component CAS MA NJ PA | | | | | |
| Nitric acid | 7697-37-2 | Yes | Yes | Yes | |

| Inventory | | | | | | | |
|-------------|--------------------------|------------|-------------|----|-----|-----------|-----------|
| Component | CAS | Canada DSL | Canada NDSL | Ch | ina | EU EINECS | EU ELNICS |
| Nitric acid | 7697-37-2 | Yes | No | Ye | es | Yes | No |
| | Inventory (Con't.) | | | | | | |
| Component | | | CAS | | TSC | A | |
| Nitric acid | itric acid 7697-37-2 Yes | | | | | | |

Canada

| Canada - WHMIS - Classifications of Substances • Nitric acid | 7697-37-2 | C, E (including 61.3%, 67.18%, 70%); E (0.63%, 6.3%) |
|---|-----------|--|
| Canada - WHMIS - Ingredient Disclosure List • Nitric acid | 7697-37-2 | 1 % |

| Environment Canada - CEPA - Priority Substances List | | |
|--|-----------|------------|
| Nitric acid | 7697-37-2 | Not Listed |

China

| China - Ozone Depleting Substances - First Schedule | | | |
|---|-----------|------------|--|
| Nitric acid | 7697-37-2 | Not Listed | |
| China - Ozone Depleting Substances - Second Schedule • Nitric acid | 7697-37-2 | Not Listed | |
| China - Ozone Depleting Substances - Third Schedule • Nitric acid | 7697-37-2 | Not Listed | |

Other

China - Annex I & II - Controlled Chemicals Lists

• Nitric acid 7697-37-2 Not Listed

| China - Dangerous Goods List | | (athorath as and foreign with |
|---|-----------|--|
| Nitric acid | 7697-37-2 | (other than red fuming, with >70% Nitric acid; other than red fuming, with not >70% Nitric acid) |
| China - Export Control List - Part I Chemicals • Nitric acid | 7697-37-2 | Not Listed |
| Europe | | |
| Other | | |
| EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification • Nitric acid | 7697-37-2 | C; R35 O; R8 |
| EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits | | |
| Nitric acid | 7697-37-2 | 70%<=C: O; R:8 20%<=C: C; R:35 5%<=C<20%: C; R:34 |
| EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling | | |
| Nitric acid | 7697-37-2 | O C R:8-35 S:(1/2)-23-26-36- 45 |
| EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations • Nitric acid | 7697-37-2 | В |
| EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases • Nitric acid | 7697-37-2 | S:(1/2)-23-26-36-45 |
| Germany | | |
| Environment | | |
| Germany - TA Luft - Types and Classes • Nitric acid | 7697-37-2 | Not Listed |
| Germany - Water Classification (VwVwS) - Annex 1 • Nitric acid | 7697-37-2 | Not Listed |
| Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes | | |
| Nitric acid | 7697-37-2 | ID Number 414, hazard class 1 - low hazard to waters (except fuming) |
| Germany - Water Classification (VwVwS) - Annex 3 • Nitric acid | 7697-37-2 | Not Listed |
| Other | | |
| Other Germany - Specifically Regulated Chemicals in TRGS • Nitric acid | 7697-37-2 | Not Listed |
| Portugal | | |
| Other | | |
| Portugal - Prohibited Substances • Nitric acid | 7697-37-2 | Not Listed |

• Nitric acid

Not Listed

7697-37-2

United Kingdom

| Jnited Kingdom | | | |
|--|-----------|--------------------------------------|--|
| Environment United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air • Nitric acid | 7697-37-2 | Not Listed | |
| Other United Kingdom - Workplace Exposure Limits (WELs) - Substances in Review | | | |
| Nitric acid | 7697-37-2 | Not Listed | |
| United Kingdom - List of Dangerous Substances in Water • Nitric acid | 7697-37-2 | Not Listed | |
| nited States | | | |
| Labor | | | |
| U.S OSHA - Process Safety Management - Highly Hazardous Chemicals Nitric acid | 7697-37-2 | 500 lb TQ (>=94.5% by weight) | |
| U.S OSHA - Specifically Regulated Chemicals • Nitric acid | 7697-37-2 | Not Listed | |
| Environment | | | |
| U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants • Nitric acid | 7697-37-2 | Not Listed | |
| U.S CERCLA/SARA - Hazardous Substances and their Reportable Quantities | | | |
| Nitric acid | 7697-37-2 | 1000 lb final RQ; 454 kg final RQ | |
| U.S CERCLA/SARA - Radionuclides and Their Reportable Quantities • Nitric acid | 7697-37-2 | Not Listed | |
| U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs • Nitric acid | 7697-37-2 | 1000 lb EPCRA RQ | |
| U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQsNitric acid | 7697-37-2 | 1000 lb TPQ | |
| U.S CERCLA/SARA - Section 313 - Emission Reporting | | | |
| Nitric acid | 7697-37-2 | 1.0 % de minimis concentration | |
| U.S CERCLA/SARA - Section 313 - PBT Chemical Listing • Nitric acid | 7697-37-2 | Not Listed | |
| Inited States - California | | | |
| Environment U.S California - Proposition 65 - Carcinogens List • Nitric acid | 7697-37-2 | Not Listed | |
| U.S California - Proposition 65 - Developmental Toxicity | | | |

Preparation Date: 08/September/2014 Revision Date: 08/September/2014

Nitric acid

Not Listed

7697-37-2

| U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL) • Nitric acid | 7697-37-2 | Not Listed | |
|---|-----------|------------|--|
| U.S California - Proposition 65 - No Significant Risk Levels (NSRL)Nitric acid | 7697-37-2 | Not Listed | |
| U.S California - Proposition 65 - Reproductive Toxicity - FemaleNitric acid | 7697-37-2 | Not Listed | |
| U.S California - Proposition 65 - Reproductive Toxicity - MaleNitric acid | 7697-37-2 | Not Listed | |

United States - Pennsylvania

| | - | | | | |
|---|----|---|---|---|---|
| - | ıo | h | ^ | r | - |
| | | | | | |

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

• Nitric acid 7697-37-2

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Nitric acid 7697-37-2 Not Listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date Preparation Date Disclaimer/Statement of

08/September/2014

08/September/2014

Disclaimer/Statement of Liability

To the best of Air Liquide's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

Key to abbreviations NDA = No data available