SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

- **Product name**: Nitric Acid
- **Product Use**: Chemical intermediate, For industrial use only.
- **Restrictions on use**: Do not use product for anything outside of the above specified uses
- **Manufacturer/Supplier**: First Chemical Corporation  
  1001 Industrial Road  
  Pascagoula, MS  
  39581  
  United States of America
- **Product Information**: +1-228-762-0870
- **Transport Emergency**: +1-800-424-9300

SECTION 2. HAZARDS IDENTIFICATION

- **Product hazard category**
  - Corrosive to metals: Category 1
  - Acute toxicity (Inhalation): Category 2
  - Skin corrosion: Category 1A
  - Serious eye damage/eye irritation: Category 1
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Label content

Pictogram : 

Signal word : Danger

Hazardous warnings : May be corrosive to metals. Causes severe skin burns and eye damage. Fatal if inhaled.
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Hazardous prevention measures

- Keep only in original container.
- Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
- Wash skin thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Wear respiratory protection.
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing.
- Rinse skin with water/ shower.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER/doctor.
- Wash contaminated clothing before reuse.
- Absorb spillage to prevent material damage.
- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.
- Store in corrosive resistant stainless steel container with a resistant inner liner.
- Dispose of contents/ container to an approved waste disposal plant.

Other hazards
The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 65 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitric acid</td>
<td>7697-37-2</td>
<td>56 - 64 %</td>
</tr>
</tbody>
</table>
**SECTION 4. FIRST AID MEASURES**

**General advice**: When symptoms persist or in all cases of doubt seek medical advice.

**Inhalation**: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

**Skin contact**: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician.

**Eye contact**: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Ingestion**: Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

**Most important symptoms/effects, acute and delayed**: No applicable data available.

**Protection of first-aiders**: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Notes to physician**: Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

**Suitable extinguishing media**: The product itself does not burn., Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**: No applicable data available.

**Specific hazards**: Hazardous decomposition products may include: flammable hydrogen gas (H2) Nitrogen oxides (NOx)
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Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

Further information: Will react with most metals, releasing potentially explosive hydrogen gas. Shut off source of fuel, if possible and without risk. Isolate area. Evacuate personnel and keep upwind of fire. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers/tanks with water spray.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**NOTE:** Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel): Ventilate the area. Immediately evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition.

Environmental precautions: No applicable data available.

Spill Cleanup: Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Accidental Release Measures: Follow applicable Federal, State/Provincial and Local laws/regulations.

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**SECTION 7. HANDLING AND STORAGE**

Handling (Personnel): Keep container tightly closed. Keep away from heat, sparks and flames. Avoid inhalation of vapour or mist. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use.

Handling (Physical Aspects): No applicable data available.

Dust explosion class: No applicable data available.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place.
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Storage period : No applicable data available.
Storage temperature : 37.8 °C (100.0 °F)

SECTION 8. EXPOSURE CONTROLS/PERSOANAL PROTECTION

Engineering controls : Use only in area provided with appropriate exhaust ventilation.

Personal protective equipment
Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use.

Hand protection : Material: Chemical-resistant gloves

Eye protection : Tightly fitting safety goggles Additionally wear a face shield where the possibility exists for face contact due to splashing, spraying or airborne contact with this material.

Skin and body protection : Where there is potential for skin contact have available and wear as appropriate impervious gloves, apron, pants, and jacket.

Exposure Guidelines
Exposure Limit Values

<table>
<thead>
<tr>
<th>Nitric acid</th>
<th>Permissible exposure limit: (OSHA) 2 ppm 5 mg/m3 8 hr. TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLV</td>
<td>(ACGIH) 2 ppm TWA</td>
</tr>
<tr>
<td>TLV</td>
<td>(ACGIH) 4 ppm STEL</td>
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</table>
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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
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<tbody>
<tr>
<td>Appearance</td>
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<tr>
<td>Physical state</td>
<td>liquid</td>
</tr>
<tr>
<td>Form</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>colourless, to, light yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>none</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No applicable data available.</td>
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<tr>
<td>pH</td>
<td>&lt; 1</td>
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<tr>
<td>Melting point/range</td>
<td>No applicable data available.</td>
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<tr>
<td>Boiling point/boiling range</td>
<td>Boiling range</td>
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<td></td>
<td>120 - 122 °C (248 - 252 °F)</td>
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<tr>
<td>Flash point</td>
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<tr>
<td>Evaporation rate</td>
<td>No applicable data available.</td>
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<tr>
<td>Flammability (solid, gas)</td>
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<tr>
<td>Upper explosion limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>65.3 - 73.3 hPa at 25 °C (77 °F)</td>
</tr>
<tr>
<td>Vapor density</td>
<td>ca. 1.4 at 4 °C (39 °F)</td>
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<tr>
<td>Specific gravity (Relative density)</td>
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<tr>
<td>Water solubility</td>
<td>completely soluble</td>
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<tr>
<td>Solubility(ies)</td>
<td>No applicable data available.</td>
</tr>
</tbody>
</table>
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Partition coefficient: n-octanol/water: No applicable data available.

Auto-ignition temperature: does not ignite

Decomposition temperature: No applicable data available.

Viscosity, kinematic: No applicable data available.

Viscosity, dynamic: No applicable data available.

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity: No applicable data available.

Chemical stability: Stable at normal temperatures and storage conditions.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid: No applicable data available.

Incompatible materials: Powdered metals, Bases, carbides, chlorates, perchlorates, unidentified organic compounds, Combustible material

Hazardous decomposition products: Hazardous decomposition products: Hydrogen, by reaction with metals, Nitrogen oxides (NOx)

**SECTION 11. TOXICOLOGICAL INFORMATION**

Nitric acid

Inhalation 4 h LC50: 0.62 mg/l, Rat

Skin irritation: Causes severe burns, Rabbit

Eye irritation: Corrosive, Not tested on animals

Repeated dose toxicity: Oral Rat

NOAEL: 1,500 mg/kg
Method: see user defined free text
Nitric Acid

No toxicologically significant effects were found. Information given is based on data obtained from similar substances.

Inhalation
Rat
- No toxicologically significant effects were found. Information given is based on data obtained from similar substances.

Carcinogenicity
: Not classifiable as a human carcinogen. Animal testing did not show any carcinogenic effects. Information given is based on data obtained from similar substances.

Mutagenicity
: Animal testing did not show any mutagenic effects. Evidence suggests this substance does not cause genetic damage in cultured mammalian cells. Evidence suggests this substance does not cause genetic damage in animals. Did not cause genetic damage in cultured bacterial cells. Information given is based on data obtained from similar substances.

Reproductive toxicity
: No toxicity to reproduction. Evidence suggests the substance is not a reproductive toxin in animals. Information given is based on data obtained from similar substances.

Teratogenicity
: Animal testing showed no developmental toxicity. Information given is based on data obtained from similar substances.

Carcinogenicity
The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.
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### SECTION 12. ECOLOGICAL INFORMATION

**Aquatic Toxicity**

**Nitric acid**

- **96 h LC50**: Fish (unspecified species) 72 mg/l
- **ErC50**: Daphnia magna (Water flea) 490 mg/l
  
  Information given is based on data obtained from similar substances.

- **48 h EC50**: Daphnia magna (Water flea) 490 mg/l
  
  Information given is based on data obtained from similar substances.

**Environmental Fate**

**Nitric Acid**

**Bioaccumulation**: Bioaccumulation is unlikely.

---

### SECTION 13. DISPOSAL CONSIDERATIONS

- **Waste disposal methods - Product**: In accordance with local and national regulations.
- **Contaminated packaging**: No applicable data available.

---

### SECTION 14. TRANSPORT INFORMATION

**DOT UN number**: 2031

- **Proper shipping name**: Nitric acid
  
  **Class**: 8
  
  **Packing group**: II
  
  **Labelling No.**: 8
  
  **Reportable Quantity**: 1000 lbs Nitric Acid

---
## Nitric Acid

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</tr>
<tr>
<td>Class</td>
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<td></td>
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<tr>
<td>Packing group</td>
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<tr>
<td>Labelling No.</td>
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<table>
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<td>: NITRIC ACID</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>: 8</td>
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<tr>
<td>Packing group</td>
<td>: II</td>
<td></td>
</tr>
<tr>
<td>Labelling No.</td>
<td>: 8</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 15. REGULATORY INFORMATION

| TSCA | : On the inventory, or in compliance with the inventory |
| SARA 313 Regulated Chemical(s) | : Nitric acid...% |
| PA Right to Know Regulated Chemical(s) | : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Nitric acid...% |
| NJ Right to Know Regulated Chemical(s) | : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Nitric acid...% |
| CERCLA Reportable Quantity | : 1538 lbs |
| Based on the percentage composition of this chemical in the product.: Nitric acid...% |
| SARA Reportable Quantity | : 1538 lbs |
| Based on the percentage composition of this chemical in the product.: Nitric acid...% |
California Prop. 65: Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

SECTION 16. OTHER INFORMATION

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Significant change from previous version is denoted with a double bar.