

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**Product name:** NITRIC ACID 70%  
**CAS number:** 7697-37-2  
**EINECS number:** 231-714-2  
**Index number:** 007-004-00-1  
**Product code:** NITRIC70  
**Synonyms:** AQUA FORTIS  
ENGRAVERS ACID  
AZOTIC ACID  
**Company name:** CHEMTEK LIMITED  
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## 2. HAZARDS IDENTIFICATION

**Main hazards:** Causes severe burns.  
**Other hazards:** Hygroscopic: readily absorbs water from air.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Hazardous ingredients:** NITRIC ACID 70.000%  
EINECS: 231-714-2 CAS: 7697-37-2  
[O] R8; [C] R35

## 4. FIRST AID MEASURES (SYMPTOMS)

**Skin contact:** Blistering may occur. Progressive ulceration will occur if treatment is not immediate.  
**Eye contact:** Corneal burns may occur. May cause permanent damage.  
**Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.  
**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

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**4. FIRST AID MEASURES (ACTION)**

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.
- Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
- Ingestion:** Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

**5. FIRE-FIGHTING MEASURES**

- Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.
- Exposure hazards:** Corrosive. In combustion emits toxic fumes.
- Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions:** Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.
- Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.
- Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**7. HANDLING AND STORAGE**

- Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.
- Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.
- Suitable packaging:** Must only be kept in original packaging. Do not use steel containers. Do not use aluminium containers.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Workplace exposure limits****WEL (8 hr TWA):** 5.2 mg/m<sup>3</sup>**WEL (15 min STEL):** 10 mg/m<sup>3</sup>**Hazardous ingredients:** NITRIC ACID...100%WEL (8 hr TWA): 5.2 mg/m<sup>3</sup> WEL (15 min STEL): 10 mg/m<sup>3</sup>**Engineering measures:** Ensure there is sufficient ventilation of the area.**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.**Hand protection:** Impermeable gloves.**Eye protection:** Tightly fitting safety goggles. Ensure eye bath is to hand.**Skin protection:** Impermeable protective clothing.**9. PHYSICAL AND CHEMICAL PROPERTIES****State:** Liquid**Colour:** Yellow**Odour:** Pungent**Evaporation rate:** Negligible**Oxidising:** Oxidising (by EC criteria)**Solubility in water:** Miscible in all proportions**Viscosity:** Viscous**Boiling point/range°C:** 120.5**Relative density:** 1.42**10. STABILITY AND REACTIVITY****Stability:** Stable under normal conditions.**Conditions to avoid:** Heat.**Materials to avoid:** Bases. Water. Aluminium. Magnesium. Zinc. Copper. Alcohols.**Haz. decomp. products:** In combustion emits toxic fumes of nitrogen oxides.**11. TOXICOLOGICAL INFORMATION****Routes of exposure:** Refer to section 4 of SDS for routes of exposure and corresponding symptoms.**12. ECOLOGICAL INFORMATION****Mobility:** Soluble in water. Readily absorbed into soil.**Persistence and degradability:** Biodegradable.**Bioaccumulative potential:** No bioaccumulation potential.**Other adverse effects:** Negligible ecotoxicity.

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**13. DISPOSAL CONSIDERATIONS**

**Disposal of packaging:** Arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**14. TRANSPORT INFORMATION****ADR / RID**

<b>UN no:</b> 2031	<b>ADR Class:</b> 8
<b>Packing group:</b> II	<b>Classification code:</b> CO1
<b>Shipping name:</b> NITRIC ACID	
<b>Labelling:</b> 8	<b>Hazard ID no:</b> 80

**IMDG / IMO**

<b>UN no:</b> 2031	<b>Class:</b> 8
<b>Packing group:</b> II	<b>EmS:</b> F-A,S-B
<b>Marine pollutant:</b> NO	
<b>Labelling:</b> 8	

**IATA / ICAO**

<b>UN no:</b> 2031	<b>Class:</b> 8
<b>Packing group:</b> II	
<b>Packing instructions:</b> 807(P&CA); 813(CAO)	
<b>Labelling:</b> 8	

**15. REGULATORY INFORMATION**

**Hazard symbols:** Corrosive.



**Risk phrases:** R35: Causes severe burns.

**Safety phrases:** S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28: After contact with skin, wash immediately with plenty of water. S35:

This material and its container must be disposed of in a safe way. S36/37/39:

Wear suitable protective clothing, gloves and eye / face protection.

## SAFETY DATA SHEET

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S41: In case of fire and / or explosion do not breathe fumes.

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

**Precautionary phrases:** Restricted to professional users.

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

### 16. OTHER INFORMATION

**Risk phrases used in s.3:** R8: Contact with combustible material may cause fire.

R35: Causes severe burns.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.