

Date of Issue: 06/05/2019

Expiry: 01/06/2024

**1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Company Name **ECP Limited**  
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<b>Product</b>	Nitric Acid 67-70%				<b>Code</b>	3440
<b>CAS#</b>	<b>HSNO#</b>	<b>UN #</b>	<b>DG Class/es</b>	<b>Packing group #</b>	<b>Tracking?</b>	<b>Handlers Certificate?</b>
7697-37-2	HSR001515	2031	8 (5.1)	II	No	No

**Recommended use:** Laboratory Investigations

**2. Hazards identification**

2.1 Classification of the substance or mixture

Oxidizing liquids (Category 3), H272

Skin corrosion (Category 1A), H314

2.2 Label elements



Pictogram

Signal word **Danger**

Hazard statement(s)

H272 May intensify fire; oxidizer.

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

P220 Keep/Store away from clothing/combustible materials.

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

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/doctor.

Supplemental Hazard Statements

None

2.3 Other hazards

None

**3. Composition/information on ingredients**

3.1 Substances

Molecular weight : 63.01 g/mol

Hazardous ingredients

Component	Classification	Concentration
Nitric acid		
CAS No. 7697-37-2	Ox. Liq. 2; Met. Corr. 1; Skin Corr. 1A; H272, H290, H314 Concentration limits: >= 20 %: Skin Corr. 1A, H314; 5 - < 20 %: Skin Corr. 1B, H314; 65 - < 99 %: Ox. Liq. 3, H272; >= 99 %: Ox. Liq. 2, H272; 1 - < 3 %: Eye Irrit. 2A, H319; 3 - < 5 %: 1, H318; >= 1 %: Met. Corr. 1, H290; 1 - < 5 %: Skin Irrit. 2, H315;	<= 100%

#### **4. First aid measures**

##### 4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.

Consult a physician.

In case of eye contact

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

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### **5. Firefighting measures**

##### 5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### 5.2 Special hazards arising from the substance or mixture

Nitrogen oxides (NO<sub>x</sub>)

##### 5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

##### 5.4 Further information

Use water spray to cool unopened containers.

#### **6. Accidental release measures**

##### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

##### 6.2 Environmental precautions

Do not let product enter drains.

##### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal.

#### **7. Handling and storage**

##### 7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

##### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): Non-combustible liquids, corrosive

#### **8. Exposure controls/personal protection**

##### 8.1 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

Control of environmental exposure

Do not let product enter drains.

## **9. Physical and chemical properties**

9.1 Information on basic physical and chemical properties

a) Appearance

Form: liquid

Colour: colourless

b) pH

< 1 at 20 °C

c) Initial boiling point and boiling range

100 °C at 1013 hPa

d) Vapour pressure

8 mmHg at 20 °C

e) Relative density

1.4 g/cm<sup>3</sup>

f) Water solubility

completely soluble

g) Oxidizing properties

The substance or mixture is classified as oxidizing with the category 3.

## **10. Stability and reactivity**

10.1 Chemical stability

Stable under recommended storage conditions.

10.2 Conditions to avoid

May discolour on exposure to air and light.

10.3 Incompatible materials

Alkali metals, organic materials, acetic anhydride, acetonitrile, alcohols, acrylonitrile.

10.4 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions

Nitrogen oxides (NO<sub>x</sub>)

Other decomposition products

No data available

## 11. Toxicological information

### 11.1 Information on toxicological effects

Skin corrosion/irritation

Skin - Rabbit Result: Extremely corrosive and destructive to tissue. (Draize Test)

Germ cell mutagenicity

Ames test - Salmonella typhimurium - negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Additional information

Burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and oedema of the larynx, spasm, inflammation and oedema of the bronchi, pneumonitis, pulmonary oedema, material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Liver - irregularities - based on human evidence.

## 12. Ecological information

### 12.1 Toxicity

Toxicity to fish

LC50 - Asterias rubens - 100 - 330 mg/l - 48 h

### 12.2 Other adverse effects

May be harmful to aquatic organisms due to the shift of the pH.

## 13. Disposal considerations

### 13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

## 14. Transport Information Table

		<b>ADR/RID – European packaging certification</b>	<b>IMDG International Maritime Dangerous Goods Code</b>	<b>IATA – DGR International Air Travel Association – Dangerous Goods Regulations</b>
<b>14.1</b>	<b>UN Number</b>	2031	2031	2031
<b>14.2</b>	<b>UN Proper Shipping name</b>	NITRIC ACID	NITRIC ACID	Nitric acid Passenger aircraft: not permitted for transport.
<b>14.3</b>	<b>Transport Hazard Class</b>	8 (5.1)	8 (5.1)	8 (5.1)
<b>14.4</b>	<b>Packaging group</b>	II	II	II
<b>14.5</b>	<b>Environmental Hazards</b>	No	No	No
<b>14.6</b>	<b>Special precautions for user</b>	None		

## 15. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to

such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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