SAFETY DATA SHEET

NITRIC ACID 68%

Infosafe No.: 7EF8Q
ISSUED Date : 30/09/2016
ISSUED by: JASOL NEW ZEALAND

CLASSIFIED AS HAZARDOUS

1. IDENTIFICATION

GHS Product Identifier
NITRIC ACID 68%

Product Code
2181160, 2181150, 2181130, 7107915, 7107910

Company Name
JASOL NEW ZEALAND

Address
81 Leonard Road
Mt. Wellington Auckland
1060 New Zealand

Telephone/Fax Number
Tel: +64 9 580 2105
Fax: +64 9 571 4388

Emergency phone number
0800 243 622

Emergency Contact Address
North Island:
81 Leonard Road, Mt. Wellington, Auckland 1060
Phone: +64 9 5802105
Fax: +64 9 5714388
South Island:
105 Rutherford Street, Christchurch 8023
Phone: +64 3 3844433
Fax: +64 3 3844431

(24 hour a day available)
0800 243622

E-mail Address
jasolnzorders@gwf.com.au

Recommended use of the chemical and restrictions on use
Metal brightener, Electroplating, Dairy CIP (Clean in Place).

Other Names

Name	Product Code
HN03, aqua fortis, azotic acid, hydrogen nitrate, engravers acid, concentrated nitric acid (other than red fuming) .	

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture
Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.
Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.
5.1.1C Oxidising substances that are liquids or solids: low hazard
6.1D (Inhalation – vapours, dusts or mists) - Substance that is acutely toxic

6.9B (Single exposure) - Substance that is harmful to human target organs or systems
8.1A Substance that is corrosive to metals
8.2B Substance that is corrosive to dermal tissue
8.3A Substance that is corrosive to ocular tissue

Signal Word (s)
DANGER

Hazard Statement (s)
H272 May intensify fire; oxidiser.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statement (s)
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

Pictogram (s)
Flame over circle,Corrosion,Exclamation mark,Health hazard

Precautionary statement – Prevention
P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P220 Keep/Store away from clothing/combustible materials.
P221 Take any precaution to avoid mixing with combustibles
P234 Keep only in original container.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P310 Immediately call a POISON CENTER or doctor/physician.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see on this label).
P370+P378 In case of fire: Use for extinction.
P390 Absorb spillage to prevent material damage.

Precautionary statement – Storage
P405 Store locked up.
P406 Store in corrosive resistant/ container with a resistant inner liner.

Precautionary statement – Disposal
P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Nitric acid	7697- 37- 2	68%
Water	7732- 18- 5	Remainder

4. FIRST-AID MEASURES

First Aid Measures

24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)
New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)
New Zealand Emergency Services: 111

Inhalation

If inhaled, remove from contaminated area to fresh air. Apply artificial respiration if not breathing. Seek immediate medical attention.

Ingestion

If swallowed, do not induce vomiting. Rinse mouth with water and if conscious give 1 – 3 cups of water, milk, milk of magnesia or egg whites to drink.
Contact the National Poisons Centre at 0800 764 766 (0800 POISON) or +64 3 479 7248 or a doctor immediately.

Skin

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor or for at least 125 minutes. Seek immediate medical attention.

Eye contact

If in eyes, hold eyelids apart and flush continuously with running water. Ensure complete irrigation of the eye by lifting the upper and lower eyelids occasionally. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes. Seek medical attention.

First Aid Facilities

Eye wash facilities and safety shower should be available.

Advice to Doctor

1. Most Important Symptoms and Effects, Both Acute and Delayed:
- No adverse effects expected if the product is handled in accordance with this SDS and the product label. However, if exposed airway problems may arise from laryngeal oedema and inhalation exposure, and necrosis characterised by formation of a coagulum as a result of desiccating action of proteins in specific tissues.
2. Immediate Medical Attention and Special Treatment Needed:
- Treat symptomatically. For inhalation treat with 100% oxygen initially. May require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling. Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray or flood with water. Use media/equipment appropriate for surrounding fire conditions

Specific Hazards Arising From The Chemical

Non-combustible. Extinguish all nearby sources of ignition since acids may react with metals to produce hydrogen, a highly and explosive gas. Nitric acid is a strong oxidiser and its heat of reaction with reducing agents or combustibles may cause ignition. Reacts explosively with combustible organics or readily oxidising materials such as alcohols, turpentines, metal powder, hydrogen sulphide, etc. Thermal decomposition liberates toxic, corrosive fumes of nitrogen oxide and hydrogen nitrate. Reacts with water to produce heat, and toxic, corrosive fumes of nitrogen oxides.

Hazchem Code

2R

Decomposition Temperature

Not available

Other Information

Advice for Firefighters:
Wear self-contained breathing apparatus and protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures
Evacuate area of all unprotected personnel. Wear full protective equipment and breathing apparatus to avoid personal contact.

Methods And Materials For Containment And Cleaning Up
Mop or wipe up small spills and dispose of waste in appropriate containers. Contain and absorb large spills with sand, soil vermiculite or other inert material. Can be neutralised with soda ash or lime. If soda is used, ensure adequate ventilation to dissipate the carbon dioxide gas.

Environmental Precautions
Prevent from entering drains and waterways.

Other Information
Reference to Other Sections:
See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Avoid all personal contact by using protective equipment. Avoid contact with reducing agents, alkalis, carbides, turpentine, hydrogen sulphide, rubber, polyethylene, combustible materials (wood, cloth, organic materials), metals (iron, copper and alloys), oxidisable materials, active metals. Use in a well-ventilated area. Avoid breathing in vapour, mists and aerosols.
WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.

Conditions for safe storage, including any incompatibilities
Container:
Keep in original containers. DO NOT use aluminium or galvanised containers. Glass container is suitable for laboratory quantities.
Storage:
Keep containers securely closed and store in a cool, dry, well-ventilated area away from direct sunlight. Store away from incompatible materials and foodstuff containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values
Material TWA STEL Peak
nitric acid 2ppm, 5.2mg/m3 4ppm, 10 mg/m3 -

Appropriate Engineering Controls
Local exhaust ventilation usually required. If risk of over-exposure exists, wear an approved respirator.

Personal Protective Equipment
Eye / Face:
Safety glasses with unperforated side shields for areas such as laboratories.
Chemical goggles, and face shield for supplementary, not primary, protection of eyes.
Hands:
Elbow-length chemical resistant gloves.
Body:
Boots and overalls worn outside of boots.
Respiratory:
Acid mist respirator (type AE-P filter of sufficient capacity) or supplied air breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form
Liquid

Appearance
Liquid

Colour
Clear or pale yellow fuming

Odour
Sharp irritating suffocating acrid odou

Decomposition Temperature
Not available

Melting Point
-42°C

Boiling Point
122°C

Solubility in Water
Miscible

Specific Gravity
1.3 – 1.42

pH
pH (1% solution): 1
pH (as supplied): <1

Vapour Pressure
8.26 kPa

Vapour Density (Air=1)
1.5

Evaporation Rate
Not applicable

Viscosity
Not available

Volatile Component
100

Flash Point
Not applicable

Auto-Ignition Temperature
Not applicable

Explosion Limit - Upper
Not applicable

Explosion Limit - Lower
Not applicable

Molecular Weight
63.02

10. STABILITY AND REACTIVITY

Reactivity
Reacts with violently with alkalis. Hygroscopic: absorbs moisture or water from surrounding air.

Chemical Stability
Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Decomposes on exposure to light.

Conditions to Avoid
Avoid exposure to direct sunlight. Avoid exposure to heat, sources of ignition, and open flame. Avoid contact with reducing agents, alkalis, carbides, turpentine, hydrogen sulphide, rubber, polyethylene, combustible materials (wood, cloth, and organic materials), metals (iron, copper and alloys), oxidisable materials, active metals. Avoid open flame

Incompatible materials
Incompatible with organic chemicals, strong alkalis, reducing agents, carbides, chlorates, combustible materials, oxidising agents, and metals.

Hazardous Decomposition Products
Oxides of nitrogen.

Possibility of hazardous reactions
Reacts with metals liberating flammable hydrogen gas. May cause fire in contact with organic materials such as wood, cotton or straw, evolving toxic nitrogen oxides gases (brown fumes). Reacts vigorously with alkalis evolving heat. Fumes in air. Absorbs moisture from the atmosphere. Hazardous polymerisation will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information
No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. The

symptoms or effects that may arise if the product is mishandled and if overexposure occurs are:

Ingestion

Extremely corrosive to the mouth and throat. Swallowing the liquid burns the tissues, causing severe abdominal pain, nausea, vomiting, kidney damage and collapse. Large quantities can cause death.

Inhalation

Vapours and mists are extremely corrosive to the nose, throat and mucus membranes. Bronchitis, pulmonary oedema and chemical pnuemonitis may occur. Irritation, coughing, chest pain and difficulty in breathing may occur with brief exposure. Breathing high concentrations may result in death after several minutes of exposure.

Skin

Extremely corrosive to skin. Vapours will irritate, liquid and mists will severely burn skin. Prolonged contact will burn or destroy surrounding tissue. Extensive burns on the body may cause death. Deep ulcers and a yellow to brown staining of the skin will occur.

Eye

Extremely corrosive to eyes. Brief contact with vapours will be severely irritating. Brief contact with liquid or mists can severely damage the eyes, prolonged contact may cause permanent eye injury – blindness may follow.

Subchronic/Chronic Toxicity

No data is available for this material.

Chronic Effects

May cause erosion of the teeth, lesions on the skin, bronchial irritation, coughing and pneumonia.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Avoid contaminating drains, waterways, sewers and soil.

Persistence and degradability

During transport through the soil, nitric acid will dissolve some of the soil material; in particular, the carbonate based materials. The acid will be neutralized to some degree with adsorption of the proton also occurring on clay materials. However, significant amounts of acid are expected to remain for transport down toward the ground water table.

Mobility

High. Upon reaching the ground water table, the acid will continue to move, now in the direction of the ground water flow

Bioaccumulative Potential

Not expected to bioaccumulate.

Other Adverse Effects

No further information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Empty containers can have residues, gases and mists and are subject to proper waste disposal referred to below.

Local Legislation

Recycle where possible otherwise ensure that:
- Licenced contractors dispose of the product and its container.
- Disposal occurs at a licenced facility.

14. TRANSPORT INFORMATION

U.N. Number

2031

UN proper shipping name

NITRIC ACID

Transport hazard class(es)

8

Sub.Risk

5.1

Packing Group

II

Hazchem Code

2R

IERG Number
40

UN Number (Sea Transport)
2031

UN Number (Road Transport)
2031

UN Number (Air Transport, ICAO)
2031

IATA/ICAO Hazard Class
8

IATA/ICAO Packing Group
II

IATA/ICAO Sub Risk
5.1

LIMITED QUANTITY - Max Net Quantity/Pkge
1L

IMDG UN No
2031

IMDG Hazard Class
8

IMDG Sub. Risk
5.1

IMDG Pack. Group
II

IMDG Subsidiary Risk
5.1

IMDG Marine pollutant
No

IMDG EMS
Fire: F-A, Spill: S-Q

15. REGULATORY INFORMATION

National and or International Regulatory Information
Nitric acid (CAS: 7697-37-2) is found on the following regulatory lists;
"GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk", "International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand
Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Scheduled Toxic Substances", "New Zealand Inventory of Chemicals (NZIoC)", "New Zealand Workplace Exposure Standards (WES)","OECD Representative List of High Production Volume (HPV) Chemicals".
Water (CAS: 7732-18-5) is found on the following regulatory lists;
"IMO IBC Code Chapter 18: List of products to which the Code does not apply", "New Zealand Inventory of Chemicals (NZIoC)","OECD Representative List of High Production Volume (HPV) Chemicals".

HSNO Approval Number
HSR100763

Other Information
Specific advice on controls required for materials used in New Zealand can be found at http://www.epa.govt.nz/hazardous-substances/approvals/Pages/default.aspx.

16. OTHER INFORMATION

Date of preparation or last revision of SDS
30/09/2016

Technical Contact Numbers

24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)
New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)
New Zealand Emergency Services: 111

Other Information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Jasol NZ cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Jasol NZ representative or Jasol NZ at the contact details on page 1.

Jasol NZ's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

END OF SDS