Camlab Limited – Material Safety Data Sheet 1111487

1. Identification

Product Code **1111487**

Product Name **NITRIC ACID 95% w/w pure**

Molecular Formula **HNO_3 =63.01**

CAS Number **7697-37-2**

Supplier: **CAMLAB LIMITED**

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2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Nitric acid	7697-37-2	231-714-2	95.0%	O C : R8,R35	WEL

3. Hazards Identification

Contact with combustible material may cause fire. Causes severe burns.

4. First Aid Measures

Eyes: Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION URGENTLY.

Skin: Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. OBTAIN MEDICAL ATTENTION URGENTLY.

Inhalation: Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If conscious place in a sitting position. OBTAIN MEDICAL ATTENTION URGENTLY.

Ingestion: If conscious give plenty of water to drink. Do not induce vomiting. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.

5. Fire Fighting Measures

Hazards: Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. May evolve toxic fumes if involved in a fire.

Extinguishing Media: Consider what other flammable materials are present and act accordingly.

Unsuitable Media: Nothing specified.

6. Accidental Release Measures

Personal Protection	Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so.
Enviromental	Keep non-neutralised material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Neutralise spill with soda ash, lime, calcium carbonate or sodium bicarbonate. Wash area down with copious amounts of water.

7. Storage & Handling

Handling Precautions	Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing. Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage . Keep well separated from acids, metals, explosives, organic peroxides and ignitable materials.

8.1 Workplace Exposure Limits

Workplace Exposure Limits	Long Term (8hr TWA):	2.000	ppm	5.200	mg m-3
	Short Term (15min Period):	4.000	ppm	10.00	mg m-3

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.
Hands	Use PVC gauntlets.
Eyes	Use chemical splash proof glasses or goggles.
Skin	If skin contact or contamination of clothing is likely, protective clothing must be worn.

9. Physical & Chemical Properties

Appearance	Clear colourless to pale yellow fuming liquid.
Odour	Suffocating and irritating.
pH	1 @ 20 °C
Boiling point	86.0 °C
Melting point	42.0- °C
Flash point	Not available
Upper Flammable Limit	Not available
Lower Flammable Limit	Not available
Auto Ignition	Not available
Explosive properties	No.
Oxidising Properties	A strong oxidising agent.
Vapour Presure	Not available
Relative Density	1.5030 °C
Water Solubility	Completely soluble in water with moderate increase in temperature.

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	No specific conditions.
Materials to Avoid	Reducing agents. Alkalis. Many organic compounds. Combustible materials.
Hazardous Decomposition Products	Not flammable but will assist a fire, producing irritant and toxic fumes of oxides of nitrogen.

11. Toxicological Information

Eyes	The vapour is be extremely irritating to eyes and can cause chemical eye burns. Damage can range from severe irritation and corneal scarring to permanent blindness.
Skin	Both the vapour and liquid will, cause severe burns. The liquid or concentrated vapour will cause immediate severe and penetrating burns. Concentrated solutions will cause deep burns and yellow discolouration of the skin. Dilute solutions will be irritating to the skin.
LD50 Skin	Not available
Ingest	Ingestion may prove fatal. Ingestion will cause severe mouth burns, and if swallowed extensive damage to the oesophagus. Symptoms may include salivation, thirst, difficulty in swallowing, pain, shock and vomiting.
LD50 Ingest	Not available
Inhalation	Exposure to vapour concentrations above the occupational exposure limits will produce irritation of the eyes, nose, throat and respiratory tract. Prolonged exposure to vapour concentrations above the occupational exposure limits may have serious effects with initially no pathological signs. Further exposure may cause acute pulmonary oedema often with a serious outcome.
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	No information is available.
Reproductive Effects	None identified.
Other Information	Used in the food industry.

12. Ecological

Acidic, nutrient for undesirable algae.

13. Disposal Considerations

Disposal Methods	Dispose of in a licensed incinerator. Never dispose of into water courses or sewerage systems.
Contaminated Packaging	Use a licensed waste disposer. Carefully neutralise with a weak sodium hydroxide solution then wash out thoroughly with water.

14. Transport Information

Proper Shipping Name	Nitric Acid, Red Fuming
UN Number	2032
UN Classification	8 Corrosive
Subsidiary Risk	6.1 Toxic
Flash Point	Not available
Packing Group	I
Transport Category	1
Marine pollutant	No
ADR Hazard ID	856

15. Regulatory Information

Labelling Classification	Oxidising, Corrosive.
Label Symbols	O

C

15. Regulatory Information (continued)

Risk & safety Phrases	Contact with combustible material may cause fire. Causes severe burns. Keep locked up and out of reach of children. Do not breath vapour. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. In case of accident or if you feel unwell, seek medical advice immediately (show the label).
EEC Number	231-714-2

16. Other Information

Document Information	This document has been prepared in accordance with directive 88/379/EEC. The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. Revision Date: 13/08/09. Data reviewed and PDF file generated: 17/03/10.