MATERIAL SAFETY DATA SHEET NITRIC ACID

Concentration requires verification. Section 1 identifies 60% and Section 2 lists 56.00% w/w. For technical review before issue.

1: Chemical Product Identification

Product Name:	Nitric Acid (60%)
Synonym:	Nitric Acid (60%)
Use:	Raw Material for Fertilizers
CAS#:	7697-37-2
Company:	Nuvest Chemicals 110 Batoliet Road Valley settlements Rand Vaal Meyerton

2. Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Nitric acid	7697-37-2	56.00

Index-No:	007-004-00-1
EC-No:	231-714-2
Symbol(s):	O, C
R-phrase(s):	R 8 -R35

3: Hazards Identification

dentification of the risks

R35	Causes severe burns.
R8	Contact with combustible material may cause fire.

4: First Aid Measures

Inhalation	Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Monitor breathing, seek medical advice immediately. Keep patient warm and at rest.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. Wash contaminated clothing before re-use. Call a physician immediately.

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Seek medical advice.
Ingestion	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician immediately.

Notes to physician

Risks	First aider needs to protect himself.

5: Fire and Explosion Data

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide., Keep containers and surroundings cool with water spray.

Specific hazards during firefighting: Use water spray to cool unopened containers. The product itself does not burn.

Special protective equipment for fire- fighters:	Wear self-contained breathing apparatus and protective suit

Further information:	Cool containers / tanks with water spray.

6: Accidental Release Measures

Personal precautions:	Use personal protective equipment. Do not breathe vapours or spray mist. Keep people away from and upwind of spill/leak.
Environmental precautions:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so
Methods for cleaning up:	Soak up with inert absorbent material and dispose of as hazardous waste.
Additional advice:	Never return spills in original containers for re-use.

7: Handling and Storage

Handling

Safe handling advice:	Avoid inhalation of vapour or mist. Avoid contact with skin and eyes. Wear personal protective equipment. Always replace cap after use

Storage

Requirements for storage areas and containers:	Keep containers tightly closed in a cool, well-ventilated place.

8: Exposure Controls/Personal Protection

Components with workplace control parameters NATIONAL OCCUPATIONAL EXPOSURE LIMITS

EUROPEAN OCCUPATIONAL EXPOSURE LIMITS

Components	Type Control parameters Basis
NITRIC ACID	STEL 2.6 mg/m3 EU Exposure Limit Values
STEL	1 ppm EU Exposure Limit Values

Engineering measures Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment

Respiratory protection	in case of insufficient ventilation wears suitable respiratory equipment.
Hand protection	Gloves suitable for permanent contact: Material: natural rubber/natural latex, butyl-rubber, Polyvinylchloride, polychloroprene Break through time: 2 hrs Material thickness: 0.5 mm

unsuitable gloves

Material:	natural rubber/natural latex, nitrile rubber/nitrile latex
Eye protection	face shield
Skin and body protection	protective suit, Safety shoes
Hygiene measures	Wash hands before breaks and immediately after handling the product.
Protective measures	Wear suitable protective equipment.

9: Physical and Chemical Properties

Physical state and appearance:	Liquid.
State of matter	liquid; at 20 °C; 1,013 hPa
Colour	clear, colourless
Odour:	Sweet pungent
pH:	< 1; acidic
Melting point/range	-41.6 °C
Boiling point/range	121 °C

Vapour pressure	11 - 15 hPa; 20 °C
Density	1.345 g/cm3; 20 °C
Water solubility	completely soluble, completely miscible
Viscosity, dynamic	1.5 mPa.s
Relative vapour density	(Air = 1.0)
Additional advice	Thermal decomposition

10: Stability and Reactivity Data

Materials to avoid	Oxidizing agents, Reducing agents, Acids, Combustible material
Thermal decomposition	Decomposes on heating.

11: Toxicological Information

Acute inhalation toxicity	Nitric Acid: LC50 rat: 0.13 mg/l; 4 h
Skin irritation	Nitric Acid: human: Extremely corrosive and destructive to tissue.; ; Causes burns. Exposure quickly causes a strong corrosive action upon all body tissue., Hazardous by absorption through the skin.
Eye irritation	Nitric Acid: human: Risk of serious damage to eyes.
Further information	Nitric Acid: May be harmful by inhalation, ingestion, skin adsorption. Ingestion may cause nausea, vomiting, sore throat, stomach- ache and eventually lead to a perforation of the intestine. Inhalation of vapours is irritating to the respiratory system, may cause throat pain and cough.

Hazardous by absorption through the skin.

Human experience	Nitric Acid: Bloody vomiting

12: Ecological Information

Ecotoxicity effects

Toxicity to fish	Nitric Acid: Toxic effects on fish and plankton
General advice	Nitric Acid: Neutralisation will reduce ecotoxic effects.

13: Disposal Considerations

Product	Dispose of in accordance with local regulations.

14: Transport Information

ADR	UN-No.: 2031; Class: 8; Packaging group: II; CO1; Description of the goods: NITRIC ACID
RID	UN-No.: 2031; Class: 8; Packaging group: II; CO1; Description of the goods: NITRIC ACID
ADNR	UN-No.: 2031; Class: 8, (5.1); Packaging group: II; C8; Description of the goods: NITRIC ACID
IMDG UN-No.:	2031; Class: 8; EmS: F-A, S-B; Packaging group: II; Description of the goods: NITRIC ACID
ICAO/IATA	UN-No. : 2031; Class: 8; Packaging group: II; Description of the goods: Nitric acid

15: Other Regulatory Information





Labelling	
Regulatory base	67/548/EEC
Symbol(s)	C: Corrosive O: Oxidising
R-phrase(s)	R35: Causes severe burns. R 8: Contact with combustible material may cause fire.
S-phrase(s)	S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S60: This material and its container must be disposed of as hazardous waste. S23: Do not breathe gas/fumes/vapour/spray
Hazardous components which must be listed on the label:	Nitric acid

16: Other Information

R8	Contact with combustible material may cause fire.
R35	Causes severe burns.

EXCLUSION OF LIABILITY All information and instructions provided in this Material Safety Data Sheet in respect of the substance is given solely in terms of the provisions of the Occupational Health and Safety Act No 85 of 1993 and Regulations ("the Act"), is based on scientific and technical knowledge as at the date indicated on this MS Material Safety Data Sheet and is presented in good faith to be correct.

The information and instructions provided in this MSDS apply only to the substance in its present form and not to any formulation or mix, in which event it is the sole responsibility of the user of the substance as formulated and/or mixed to investigate and establish any danger which may arise out of its use, wherever such user may be situated.

It is the sole responsibility of the person in receipt of this Material Safety Data Sheet wherever such recipient may be situated, to ensure that the information provided is communicated to and understood by any person who may come in contact with the substance in any place and in any manner whatsoever. If such recipient produces formulations or mixes using the substance, then it is such recipient's sole responsibility to comply with the provisions of the Act in respect of the provision of the necessary Material Safety Data Sheet, or to comply with any other applicable legislation.