

medilines

# Nitric acid 68%

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name	Medilines Nitric acid 68%
Brand	Medilines
Pack size	500ml, 2.5 Litres.
Cat #	1334.500 for 500ml, 1334.2500 for 2.5 Litres
Synonyms	Azotic acid; Engraver's acid; Aqua fortis.
CAS #	7697-37-2
Formula	HNO <sub>3</sub>
Molecular weight	63.01 g/mol

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemical, Manufacture of substances
Recommended use	No additional information available
Restrictions on use	

#### 1.3 Details of the supplier of the safety data sheet

Company	Diasonic, 31-Temple Road, Lahore.
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**Diasonic**

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## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation

Oxidising Liquids, Category 3 H272

Skin corrosion/irritation, Category 1 H314

Full text of H- and EUH-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

May intensify fire; oxidiser. Causes severe skin burns and eye damage

### 2.2 Hazard pictograms: Label Elements



GHS03



GHS05

Signal word (9CLP)

Danger

Hazard statements

H272 - May intensify fire; oxidiser.

H314 - Causes severe skin burns and eye damage.

Precautionary statements:

P220 - Keep away from clothing and other combustible materials..

P280 - Wear protective clothing, eye protection, face protection, protective gloves.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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 or doctor.

### 2.3 Other hazards

Other hazards not contributing to the classification : None

## SECTION 3. Composition/information on ingredients

### 3.1 Substances

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Substance type : not applicable

<b>3.2</b>	<b>Mixture</b>
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Name	Product identifier	%	Classification
Nitric acid	CAS-No.: 7697-37-2	68-69%	Ox. Liq. 2, H272
	EC-No.: 231-714-2		Skin Corr. 1A, H314
	EC Index-No.: 007-004-00-1		
Water	CAS-No.: 7732-18-5	31-32	Not classified
	EC-No.: 231-791-2		

Full text of hazard classes and H-statements: see section 16

#### SECTION 4. First aid measures

<b>4.1</b>	<b>Description of first aid measures</b>
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<b>General information</b>	Call a physician immediately.
<b>Inhalation:</b>	Remove person to fresh air and keep comfortable for breathing. Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Do not induce vomiting. Call a physician immediately.
<b>Skin contact</b>	Wash with plenty of water/.... Get medical advice/attention. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Call a physician immediately.

<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed</b>
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**Potential Adverse human health effects and symptoms** : Causes severe skin burns and eye damage.

<b>Ingestion</b>	Burns.
<b>Skin contact</b>	Burns.
<b>Eye contact</b>	Serious damage to eyes.
<b>Chronic symptoms</b>	Affection/discolouration of the teeth.

<b>4.3</b>	<b>Immediate medical attention and special treatment needed</b>
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Treat symptomatically.

#### SECTION 5. Fire fighting measures

<b>5.1</b>	<b>Extinguishing media</b>
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**Suitable extinguishing media** : Dry powder. Water spray. Foam. Carbon dioxide.

**Unsuitable extinguishing media** Do not use extinguishing media containing water. Carbon dioxide (CO<sub>2</sub>). Foam.

<b>5.2</b>	<b>Specific hazards arising from the substance or mixture</b>
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**Fire hazard** May cause fire or explosion; strong oxidiser. May intensify fire; oxidiser.

**Explosion hazard** Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

**Hazardous decomposition products in case of fire.** Toxic fumes may be released.

<b>5.3</b>	<b>Special protective equipment and precaution for fire-fighters</b>
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**Fire fighting instructions** In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

**Protection during firefighting** Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

<b>SECTION 6. Accidental Release/ Spillage Measures:</b>	
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<b>6.1</b>	<b>Personal precautions, protective equipment and emergency procedures</b>
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**General measures** No open flames. No smoking.

**6.1.1 For non-emergency personnel**

**Emergency procedures** Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe dust, fume, gas, mist, spray, vapours.

**6.1.2 For emergency responders**

**Protective equipment** Do not attempt to take action without suitable protective equipment. Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection".

**Emergency procedures** Ventilate area.

<b>6.2</b>	<b>Environmental precautions</b>
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Avoid release to the environment.

<b>6.3</b>	<b>Methods and material for containment and cleaning up</b>
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**Methods for cleaning up** Take up liquid spill into absorbent material. On land, sweep or shovel into suitable containers. Collect spillage. Notify authorities if product enters sewers or public waters.

**Other information** Dispose of materials or solid residues at an authorized site

<b>6.4</b>	<b>Reference to other sections</b>
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For further information refer to section 13.

<b>SECTION 7. Handling and storage</b>	
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<b>7.1</b>	<b>Precautions for safe handling</b>
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**Additional hazards when processed** Hazardous waste due to potential risk of explosion.

**Precautions for safe handling**

Ensure good ventilation of the work station. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking. Do not breathe vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Do not breathe dust, fume, gas, mist, spray, vapours.

**Hygiene measures**

Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2	<b>Conditions for safe storage, including any incompatibilities</b>
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**Incompatible materials**

Heat sources. combustible materials.

**Storage conditions**

Keep in fireproof place. Store in a closed container. Store locked up. Store in a wellventilated place. Keep cool.

**Technical measures**

Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.

7.3	<b>Specific end use(s)</b>
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No information available.

<b>SECTION 8. Handling, Exposure control / personal protection and storage</b>
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8.1	<b>Control parameters</b>
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<b>Nitric Acid (7697-37-2) Occupational Exposure Limits</b>	
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Local name	Nitric acid 68%
WEL STEL (OEL STEL)	2.6 mg/m <sup>3</sup>
WEL STEL (OEL STEL) [ppm]	1 ppm

**Recommended monitoring procedures**

No additional information available

**Air contaminants formed**

No additional information available

**DNEL and PNEC**

No additional information available

**Control banding**

No additional information available

8.2	<b>Appropriate engineering controls</b>
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**Appropriate engineering controls**

Ensure good ventilation of the work station.

8.3	<b>Individual protection measures/Personal protective equipment</b>
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**Personal protective equipment:**

Wear fire/flame resistant/retardant clothing.

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#### Personal protective equipment symbol(s):



<b>Hand protection:</b>	Protective gloves against chemicals
<b>Eye/face protection</b>	Chemical goggles or face shield
<b>Other skin and body protection</b>	Protective gloves and Safety Hazard Clothing.
<b>Respiratory protection:</b>	[In case of inadequate ventilation] wear respiratory protection.
<b>Thermal hazard protection:</b>	No additional information available
<b>Environmental exposure controls</b>	Avoid release to the environment.

### SECTION 9. Physical and Chemical Properties

#### 9.1 Information on basic physical and chemical properties

<b>Physical state</b>	: Liquid
<b>Appearance</b>	: ClearLiquid.
<b>Color</b>	: Colourless
<b>Odor</b>	: Acrid. suffocating odour
<b>Odor threshold</b>	: 0.29 – 0.98 ppm
	: 0.75 – 2.5 mg/m <sup>3</sup>
<b>pH</b>	: < 1 at 20°C
<b>Melting point</b>	: Not applicable
<b>Freezing point</b>	: -42 – -38 °C
<b>Boiling point</b>	: 122 °C
<b>Flash point</b>	: No data available
<b>Auto-ignition temperature</b>	: No data available
<b>Decomposition temperature</b>	: No data available
<b>Flammability (solid, gas)</b>	: No data available
<b>Relative evaporation rate (butyl acetate=1)</b>	: No data available
<b>Vapor pressure</b>	: 48 mm Hg at 20°C
<b>Relative vapor density at 20 °C</b>	: 2 – 3
<b>Relative density</b>	: No data available
<b>Specific gravity / density</b>	: 1.41 g/ml at 20°C
<b>Solubility</b>	: <b>Water:</b> Exothermically miscible in water, <b>Ether:</b> Miscible in ether
<b>Partition coefficient n-octanol/water (Log Pow)</b>	: -2.3 (OECD 107: Shake Flask Method)
<b>Viscosity, kinematic</b>	: No data available
<b>Viscosity, dynamic</b>	: No data available
<b>Explosive properties</b>	: No data available
<b>Oxidising properties</b>	: May cause fire or explosion; strong oxidiser.
<b>Explosive limits</b>	: No data available

#### 9.2 Other information

**Refractive index** : 1.397 (16.5°C)

### SECTION 10. Stability and reactivity

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<b>10.1</b>	<b>Reactivity</b>
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**Reactivity** Thermal decomposition generates : Corrosive vapours. May intensify fire; oxidiser.

<b>10.2</b>	<b>Chemical stability</b>
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**Stability** Stable under normal conditions.

<b>10.3</b>	<b>Possibility of hazardous reactions</b>
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**Possibility of hazardous reactions** No dangerous reactions known under normal conditions of use.

<b>10.4</b>	<b>Conditions to avoid</b>
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**Conditions to avoid** Heat. Sparks. Open flame. Avoid contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.

<b>10.5</b>	<b>Incompatible materials</b>
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**Materials to avoid** Combustible materials.

<b>10.6</b>	<b>Hazardous decomposition products</b>
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Thermal decomposition generates : Corrosive vapours.

## SECTION 11. Toxicological information

<b>11.1</b>	<b>Information on toxicological effect</b>
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**Acute toxicity - oral** : Not classified  
**Acute toxicity (dermal)** : Not classified  
**Acute toxicity (inhalation)** : Not classified  
**Skin corrosion/irritation** : Causes severe skin burns. pH: < 1 at 20°C  
**Serious eye damage/irritation** : Assumed to cause serious eye damage  
**Respiratory or skin sensitization** : Not classified  
**Germ cell mutagenicity** : Not classified  
**Carcinogenicity** : Not classified  
**Reproductive toxicity** : Not classified  
**STOT-single exposure** : Not classified  
**STOT-repeated exposure** : Not classified  
**Aspiration hazard** : Not classified

## SECTION 12. Ecological Information

<b>12.1</b>	<b>Toxicity</b>
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**Ecology - general** : Before neutralisation, the product may represent a danger to aquatic organisms.

**Hazardous to the aquatic environment, short-term (acute)** : Not classified.

**Hazardous to the aquatic environment, long-term (chronic)** : Not classified.

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<b>12.2</b>	<b>Persistence and degradability</b>
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Not established.

<b>12.3</b>	<b>Bio accumulative potential</b>
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**Nitric acid 68% (7697-37-2)**

Partition coefficient n-octanol/water (Log Pow) : -2.3 (OECD 107: Shake Flask Method)

**Bioaccumulative potential** : Not established.

<b>12.4</b>	<b>Mobility in soil</b>
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No additional information available

<b>12.5</b>	<b>Other adverse effect</b>
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No additional information available.

**SECTION 13. Disposal considerations**

<b>13.1</b>	<b>Disposal methods</b>
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**Waste disposal recommendations** : Dispose of contents/container in accordance with licensed collector's sorting instructions.

**Product/Packaging disposal recommendations** : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**Additional information** : Hazardous waste due to potential risk of explosion.

**SECTION 14. : Transport information**

<b>Department of Transport</b>
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**Shipping Name** : Nitric acid 68%

**Hazard Class** : 8

**UN Number** : UN2031

**Packing Group** : II

**Other information** : No supplementary information available

**SECTION 15. : Regulatory information**

<b>15.1</b>	<b>US Federal regulations</b>
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Component	CAS No.	TSCA	TSCA Inventory notification – active – inactive	TSCA - EPA Regulatory Flags
Nitricacid...%[C≤68%]	7697-37-2	X	ACTIVE	-
Water	7732-18-5	X	ACTIVE	-

**Legend:**

**TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)**

X – Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not

<b>15.2</b>	<b>International / European regulations</b>
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**European Labeling in Accordance with EC Directives**

**Hazard Symbols:** C

**Risk Phrases:** R 35 Causes severe burns.

**Safety Phrases:** S 23 Do not inhale gas/fumes/vapour/spray.  
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S 36 Wear suitable protective clothing.  
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**WGK (Water Danger/Protection)** CAS# 7697-37-2: 1

**Canada - DSL/NDL** CAS# 7697-37-2 is listed on Canada's DSL List.

**Canada – WHMIS** This product has a WHMIS classification of E, C, D1A. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List** CAS# 7697-37-2 is listed on the Canadian Ingredient Disclosure List.

<b>SECTION 16. : Other information</b>	

The information in this safety data sheet was obtained from current and reliable sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal of this product are beyond Pro-Lab Diagnostics control, it is the users responsibility to perform thorough testing of this product when used in combination with any other product. It is suggested that users familiarise themselves with this safety data sheet before handling the product.

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