

WF Education Group - Safety Data Sheet

NI4280

(in accordance with regulation (EU) 2015/830 and regulation (EC) 1272/2008)

Revision: 1.2

Revision date:

16 April 2021

Date printed:

07 June 2021

Section 1. Identification

| | |
|-------------------------------|---------------------------|
| 1.1 Product Identifier | NI4280 |
| Product Name | NITRIC ACID 69% LR 1L. |
| CAS Number | 7697-37-2 |
| REACH Registration No | 01-2119487297-23-XXXX |
| Molecular Formula | HNO ₃ , =63.01 |

1.2 Relevant identified uses of the substance or mixture & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier



Phoenix House
Battlefield Enterprise Park
Stafford Drive
Shrewsbury
Shropshire
SY1 3FE
UNITED KINGDOM

Phone +44(0)1743 812200
Email sales@wf-education.com
Website www.timstar.co.uk

1.4 Emergency Telephone

(08:30-17:00) +44(0)1743 812200
(24hr) 112
(Have this document to hand)

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

| | |
|---|--|
| Oxidising liquid, category 3 | H272: May intensify fire; oxidizer. |
| Corrosive to metals, category 1 | H290: May be corrosive to metals. |
| Skin corrosion/irritation, category 1A | H314: Causes severe skin burns and eye damage. |
| Acute toxicity, category 3 (inhalation) | H331: Toxic if inhaled. |

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



| | |
|--------------------------------------|---|
| Hazard Statements | May intensify fire; oxidizer. Causes severe skin burns and eye damage. May be corrosive to metals. Toxic if inhaled. |
| Precautionary Statements | Wear protective gloves / protective clothing / eye protection / face protection. Do not breathe dust / fume / gas / mist / vapours / spray. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. |
| Supplemental Hazard Information (EU) | Corrosive to the respiratory tract. |

Section 3. Composition

3.1 Substances

| Component | CAS No. | EEC No. | REACH No. | Conc w/w | CLP Classification (1272/2008/CE) |
|-------------|-----------|-----------|-----------------------|----------|---|
| Nitric acid | 7697-37-2 | 231-714-2 | 01-2119487297-23-XXXX | 69% | Ox. Liq. 3, Met. Corr. 1, Skin Corr. 1A, Acute Tox. 3 (I) |

Section 4. First Aid

4.1 Description of 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. |
| Personal protection for first aiders | Wear protective gloves / eye protection. |

4.2 Most important symptoms and effects, both acute & delayed.

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

| | |
|---------------------|--|
| Extinguishing Media | Consider what other flammable materials are present and act accordingly. |
| Unsuitable Media | Nothing specified. |

5.2 Special hazards arising from the substance or mixture

| | |
|---------|---|
| Hazards | May evolve toxic fumes if involved in a fire. |
|---------|---|

5.3 Advice for firefighters

| | |
|-------------------------|--|
| Advice for firefighters | Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. |
|-------------------------|--|

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---------------------|--|
| 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. |
|---------------------|--|

6.2 Environmental precautions

Environmental 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.

6.3 Methods and material for containment and cleaning up

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.

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

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.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Keep well separated from acids, metals, explosives, organic peroxides and ignitable materials.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

| Component | CAS No | Concentration | Workplace Exposure Limits | |
|-------------|-----------|---------------|---------------------------|-------------------------|
| | | | Long Term (8hr TWA) | Short Term 15min period |
| Nitric acid | 7697-37-2 | 69% | - | 1.0 ppm 2.8 mg/m-3 |

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

Respiratory Protection 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.

Hand Protection Use PVC gauntlets.

Eye Protection Use tightly fitting chemical splash proof glasses or goggles.

Skin Protection If skin contact or contamination of clothing is likely, protective clothing must be worn.

Special Hazards No special precautions required.

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|-----------------------|--|
| Appearance | Clear colourless to pale yellow fuming liquid. |
| Odour | Suffocating and irritating. |
| pH | 1 @ 20°C |
| Boiling Point | 122°C |
| Melting Point | -42°C |
| Flash Point | Not applicable |
| Upper Flammable Limit | Not applicable |
| Lower Flammable Limit | Not applicable |
| Auto Ignition | Not applicable |
| Explosive Properties | No. |
| Oxidising Properties | A strong oxidising agent. |

| | |
|------------------|--|
| Vapour Pressure | 9mmHg @ 20°C |
| Relative Density | 1.4200 |
| Water Solubility | Completely soluble in water with moderate increase in temperature. |

9.2 Other information

No data available.

Section 10. Stability & Reactivity

| | | |
|------|------------------------------------|---|
| 10.1 | Reactivity | No data available. |
| 10.2 | Chemical Stability | Stable under normal conditions |
| 10.3 | Possibility of hazardous reactions | No data available. |
| 10.4 | Conditions to Avoid | No specific conditions. |
| 10.5 | Incompatible Materials | Reducing agents. Alkalis. Many organic compounds. Combustible materials. |
| 10.6 | Hazardous Decomposition Products | Not flammable but will assist a fire, producing irritant and toxic fumes of oxides of nitrogen. |

Section 11. Toxicological Information

11.1 Information on toxicological effects

| | |
|----------------------|---|
| Eyes | The vapour is 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 |
| Ingestion | 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 Oral | 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. |
| LD50 Inhalation | 2.65mg/l Rat |
| TCLo | Not available |
| Carcinogenicity | Not considered to be a carcinogen. |
| Mutagenicity | No information is available. |
| Reproductive Effects | None identified. |

Section 12. Ecological

| | | |
|------|----------------------------------|---|
| 12.1 | Toxicity | Acidic, nutrient for undesirable algae. |
| | LC50 Algal | Not available |
| | LC50 Crustacea | Not available |
| | LC50 Fish | 3.7mg/l Rainbow Trout |
| 12.2 | Persistence and degradability | No data available. |
| 12.3 | Bioaccumulative potential | No data available. |
| 12.4 | Mobility in soil | No data available. |
| 12.5 | Results of PBT & vPvB assessment | Assessment not required. |
| 12.6 | Other adverse effects | None known at present. |

Section 13. Disposal Considerations

13.1 Waste treatment methods

| | |
|------------------------|---|
| Disposal Methods | Dilute in a large excess of water and carefully neutralise with soda ash, then wash to drain with copious amounts of water. |
| Contaminated Packaging | Use a licensed waste disposer. Wash out containers with water. |

Section 14. Transport Information


| | |
|-----------------------------------|----------------------------------|
| 14.1 UN Number | 2031 |
| 14.2 Proper Shipping Name | Nitric acid |
| 14.3 Transport classes | |
| UN classification | 8 |
| Subsidiary hazard(s) | 5.1 |
| Transport category | 2 |
| ADR Hazard ID | 85 |
| Tunnel Restriction Code | E |
| 14.4 Packing Group | II |
| 14.5 Environment hazards | See section 12. |
| 14.6 Special precautions for user | No special precautions required. |
| 14.7 Transport in bulk | Not transported in bulk. |



Section 15. Regulatory Information

15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

| | |
|--------------------------------------|--|
| Classification | Oxidising liquid, category 3; Corrosive to metals, category 1; Skin corrosion/irritation, category 1A; Acute toxicity, category 3 (inhalation) |
| Signal word | Danger |
| Hazard Pictograms |  |
| Hazard Statements | H272, H314, H290, H331 May intensify fire; oxidizer. Causes severe skin burns and eye damage. May be corrosive to metals. Toxic if inhaled. |
| Precautionary Statements | P280, P260, P301+P330+P331, P303+P361+P353, P304+P340, P305+P351+P338 Wear protective gloves / protective clothing / eye protection / face protection. Do not breathe dust / fume / gas / mist / vapours / spray. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. |
| Supplemental Hazard Information (EU) | EUH071 Corrosive to the respiratory tract. |

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

Revision number: 1.2 (Supercedes revision 1.1)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 07 June 2021

Copyright: 2021 WF Education Group