

NITRIC ACID 4M (4N) STANDARDIZED SOLUTION MSDS



CAS-No.: MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Mixture
:
Product code : R210D

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Labogens Fine Chem Industries
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,
Ludhiana Pb. (141007)
+91 9316777775, +91 7707855700
sales@labogens.com - www.Labogens.com

1.4. Emergency telephone number

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

C; R35

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

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2.2. Label elements

Labelling according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols

:



C - Corrosive

R-phrases

: R35 - Causes severe burns

S-phrases

: S24 - Avoid contact with skin

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S28 - After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer)

S35 - This material and its container must be disposed of in a safe way

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)

S59 - Refer to manufacturer/supplier for information on recovery/recycling

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Directive 67/548/EEC | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|-------------|--|---------|--|---|
| Water | (CAS-No.) 7732-18-5 (EC-No.) 231-791-2 | 75 - 99 | Not classified | Not classified |
| Nitric acid | (CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 | 25 - 50 | O; R8 C; R35 | Ox. Liq. 1, H271 Skin Corr. 1A, H314 |

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.

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| First-aid measures after eye contact | : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Rinse mouth out with water. If you feel unwell, seek medical advice. |

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

| | |
|------------------|--|
| Symptoms/effects | : Causes severe skin burns and eye damage. |
|------------------|--|

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|--------------------------------|---|
| Suitable extinguishing media | : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO ₂). |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

| | |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. |
|--------------------------------|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|---|
| Emergency procedures | : Avoid contact with skin, eyes and clothing. |
|----------------------|---|

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Use personal protective equipment as required. |
|----------------------|--|

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| Methods for cleaning up | : Clean up immediately by sweeping or vacuum. |
|-------------------------|---|

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|---|
| Precautions for safe handling | : Avoid contact with skin and eyes. |
| Hygiene measures | : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|--------------------|--|
| Storage conditions | : Store in a well-ventilated place. Keep container tightly closed. |
|--------------------|--|

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

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8.2. Exposure controls

| | |
|--------------------------|--------------------------------------|
| Hand protection | : Protective gloves |
| Eye protection | : Chemical goggles or safety glasses |
| Skin and body protection | : Wear suitable protective clothing |
| Respiratory protection | : Wear respiratory protection. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---------------------|
| Physical state | : Liquid |
| Colour | : Clear Colorless. |
| Odour | : No data available |
| Odour threshold | : No data available |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapour pressure | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| Log Pow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : No data available |

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|---------------------------|------------------------|
| Acute toxicity | : Not classified |
| Irritation | : Not classified |
| Corrosivity | : Causes severe burns. |
| Sensitisation | : Not classified |
| Repeated dose toxicity | : Not classified |
| Carcinogenicity | : Not classified |
| Mutagenicity | : Not classified |
| Toxicity for reproduction | : Not classified |

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

| | |
|---------------|--------|
| UN-No. (ADR) | : 2031 |
| UN-No. (IMDG) | : 2031 |
| UN-No. (IATA) | : 2031 |
| UN-No. (ADN) | : 2031 |
| UN-No. (RID) | : 2031 |

14.2. UN proper shipping name

| | |
|---------------------------------------|-----------------------------------|
| Proper Shipping Name (ADR) | : NITRIC ACID |
| Proper Shipping Name (IMDG) | : NITRIC ACID |
| Proper Shipping Name (IATA) | : Nitric acid |
| Proper Shipping Name (ADN) | : NITRIC ACID |
| Proper Shipping Name (RID) | : NITRIC ACID |
| Transport document description (ADR) | : UN 2031 NITRIC ACID, 8, II, (E) |
| Transport document description (IMDG) | : UN 2031 NITRIC ACID, 8, II |
| Transport document description (IATA) | : UN 2031 Nitric acid, 8, II |
| Transport document description (ADN) | : UN 2031 NITRIC ACID, 8, II |
| Transport document description (RID) | : UN 2031 NITRIC ACID, 8, II |

14.3. Transport hazard class(es)

ADR

| | |
|----------------------------------|-----|
| Transport hazard class(es) (ADR) | : 8 |
| Danger labels (ADR) | : 8 |



IMDG

| | |
|-----------------------------------|-----|
| Transport hazard class(es) (IMDG) | : 8 |
| Danger labels (IMDG) | : 8 |



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IATA

Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8

:



ADN

Transport hazard class(es) (ADN) : 8

Danger labels (ADN) : 8

:



RID

Transport hazard class(es) (RID) : 8

Danger labels (RID) : 8

:



14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : C1

Limited quantities (ADR) : 1I

Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02

Special packing provisions (ADR) : PP81, B15

Mixed packing provisions (ADR) : MP15

Portable tank and bulk container instructions (ADR) : T8

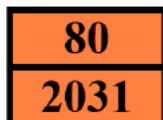
Portable tank and bulk container special provisions (ADR) : TP2

Tank code (ADR) : L4BN

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Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 2P
APP code : B

- Transport by sea

Packing instructions (IMDG) : P001
Special packing provisions (IMDG) : PP81
IBC packing instructions (IMDG) : IBC02
IBC special provisions (IMDG) : B15, B20
Tank instructions (IMDG) : T8
Tank special provisions (IMDG) : TP2
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : D
Segregation (IMDG) : SG6, SG16, SG17, SG19
Properties and observations (IMDG) : Colourless liquid. Oxidant; may cause fire in contact with organic materials such as wood, cotton or straw, evolving highly toxic gases (brown fumes). Highly corrosive to most metals. Causes severe burns to skin, eyes and mucous membranes.
MFAG-No : 157

- Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Forbidden
PCA limited quantity max net quantity (IATA) : Forbidden
PCA packing instructions (IATA) : Forbidden
PCA max net quantity (IATA) : Forbidden
CAO packing instructions (IATA) : 855
CAO max net quantity (IATA) : 30L
Special provisions (IATA) : A212
ERG code (IATA) : 8L

- Inland waterway transport

Classification code (ADN) : C1
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

- Rail transport

Classification code (RID) : C1
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Packing instructions (RID) : P001, IBC02
Special packing provisions (RID) : PP81, B15
Mixed packing provisions (RID) : MP15
Portable tank and bulk container instructions (RID) : T8

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| | |
|---|--------|
| Portable tank and bulk container special provisions (RID) | : TP2 |
| Tank codes for RID tanks (RID) | : L4BN |
| Transport category (RID) | : 2 |
| Colis express (express parcels) (RID) | : CE6 |
| Hazard identification number (RID) | : 80 |

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

| | |
|--|---|
| Reference to AwSV | : Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV, Annex 1) |
| 12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV | : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance) |

Netherlands

| | |
|---|-------------------------------------|
| SZW-lijst van kankerverwekkende stoffen | : None of the components are listed |
| SZW-lijst van mutagene stoffen | : None of the components are listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding | : None of the components are listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid | : None of the components are listed |
| NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling | : None of the components are listed |

Denmark

| | |
|-----------------------------------|---|
| Recommendations Danish Regulation | : Young people below the age of 18 years are not allowed to use the product |
|-----------------------------------|---|

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

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Full text of R-, H- and EUH-statements:

| | |
|---------------|--|
| Ox. Liq. 1 | Oxidising Liquids, Category 1 |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |
| H271 | May cause fire or explosion; strong oxidiser. |
| H314 | Causes severe skin burns and eye damage. |
| R35 | Causes severe burns |
| R8 | Contact with combustible material may cause fire |
| C | Corrosive |
| O | Oxidising |

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product