

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Jokisch Migma Rino KSG

Revision: 10.12.2025

Product code: 291_1

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Pictograms:



Hazard statements

- H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
- H314 Causes severe skin burns and eye damage.
- H335 May cause respiratory irritation.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing and eye protection/face protection.
- P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P302+P352 IF ON SKIN: Wash with plenty of Water.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P321 Specific treatment (see ... on this label).
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P310 Immediately call a POISON CENTER/doctor.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P321 Specific treatment (see ... on this label).
- P310 Immediately call a POISON CENTER/doctor.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P501 Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

This substance does not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

Relevant ingredients

| CAS No | Chemical name | | | Quantity |
|----------|--|--------------|----------|----------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 141-43-5 | 2-aminoethanol; ethanolamine | | | 100 % |
| | 205-483-3 | 603-030-00-8 | | |
| | Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, STOT SE 3, Aquatic Chronic 3; H332 H312 H302 H314 H318 H317 H335 H412 | | | |

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

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Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|----------|-----------|--|----------|
| | | Specific Conc. Limits, M-factors and ATE | |
| 141-43-5 | 205-483-3 | 2-aminoethanol; ethanolamine | 100 % |
| | | inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 2504 mg/kg; oral: LD50 = 1089 mg/kg STOT SE 3; H335: >= 5 - 100 | |

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated, saturated clothing immediately. Move victim to fresh air. Put victim at rest and keep warm. First aider: Pay attention to self-protection!

After inhalation

Provide fresh air. Seek medical attention if problems persist.

After contact with skin

Wash with plenty of water/soap. Call a physician immediately.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. @1501.B015818

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂). Extinguishing powder. Water spray. alcohol resistant foam.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Nitrogen oxides (NO_x). In case of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

Personal protection equipment: see section 8 In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Wear personal protection equipment. Keep away from unprotected people. Keep upwind. Avoid contact with skin and eyes. Do not breathe gas/fumes/vapour/spray.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Disposal: see section 13 Provide adequate ventilation.

6.4. Reference to other sections

Personal protection equipment: see section 8 , 1,13

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

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Advice on safe handling

Keep container tightly closed. Avoid contact with skin and eyes. Provide adequate ventilation as well as local exhaustion at critical locations. Avoid the formation of aerosol.

Advice on protection against fire and explosion

When hot, product develops flammable vapours. Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and after work. Remove contaminated, saturated clothing immediately. Avoid contact with skin and eyes. Do not breathe gas/fumes/vapour/spray.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Store in a well-ventilated place. Keep container tightly closed.

Hints on joint storage

Do not store together with: Etchant and acids

Further information on storage conditions

Gesetze und Vorschriften zur Lagerung und Verwendung wassergefährdender Stoffe beachten. Slowly corrodes aluminium and zink under hydrogen evolution.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits**

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|----------|----------------|-----|-------------------|---------------------|---------------|--------|
| 141-43-5 | 2-Aminoethanol | 1 | 2.5 | | TWA (8 h) | |
| | | 3 | 7.6 | | STEL (15 min) | |

DNEL/DMEL values

| CAS No | Substance | | | |
|--------------------------|------------------------------|----------|------------------------|--|
| DNEL type | Exposure route | Effect | Value | |
| 141-43-5 | 2-aminoethanol; ethanolamine | | | |
| Worker DNEL, long-term | inhalation | systemic | 1 mg/m ³ | |
| Worker DNEL, long-term | inhalation | local | 0,51 mg/m ³ | |
| Worker DNEL, long-term | dermal | systemic | 3 mg/kg bw/day | |
| Consumer DNEL, long-term | inhalation | systemic | 0,18 mg/m ³ | |
| Consumer DNEL, long-term | inhalation | local | 0,28 mg/m ³ | |
| Consumer DNEL, long-term | dermal | systemic | 1,5 mg/kg bw/day | |
| Consumer DNEL, long-term | oral | systemic | 1,5 mg/kg bw/day | |

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PNEC values

| CAS No | Substance | Value |
|--|------------------------------|-------------|
| Environmental compartment | | |
| 141-43-5 | 2-aminoethanol; ethanolamine | |
| Freshwater | | 0,07 mg/l |
| Marine water | | 0,007 mg/l |
| Freshwater sediment | | 0,375 mg/kg |
| Marine sediment | | 0,036 mg/kg |
| Micro-organisms in sewage treatment plants (STP) | | 100 mg/l |
| Soil | | 1,29 mg/kg |

8.2. Exposure controls**Individual protection measures, such as personal protective equipment****Eye/face protection**

Tightly sealed safety glasses.

Hand protection

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing. Chemical resistant safety shoes.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Work in well-ventilated zones or use proper respiratory protection.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

| | |
|---|------------------------|
| Physical state: | liquid |
| Colour: | farblos |
| Odour: | aminartig |
| Melting point/freezing point: | 10,3 °C |
| Boiling point or initial boiling point and boiling range: | 170 °C |
| Lower explosion limits: | 2,5 vol. % |
| Upper explosion limits: | 13,1 vol. % |
| Flash point: | 93,0 °C |
| Auto-ignition temperature: | 385 °C |
| pH-Value (at 20 °C): | 12,1 |
| Viscosity / kinematic: (at 20 °C) | 23 mm ² /s |
| Water solubility: (at 20 °C) | 1000 g/l |
| Partition coefficient n-octanol/water: | -1,91 |
| Vapour pressure: (at 20 °C) | 0,3 hPa |
| Vapour pressure: (at 50 °C) | 23 hPa |
| Density (at 20 °C): | 1,01 g/cm ³ |

9.2. Other information**Information with regard to physical hazard classes**

Sustained combustibility: No data available

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Other safety characteristicsViscosity / dynamic:
(at 20 °C)

20 mPa·s

SECTION 10: Stability and reactivity**10.3. Possibility of hazardous reactions**

Exothermic reactions with: Etchant and acids Violent reaction with: Catalyst Oxidizing agents. Alkalis (alkalis).
Explosive reaction with: Etchant and acids Aluminium hydroxide gel Copper Oxidizing agents. Nitric acid

10.5. Incompatible materials

Oxidizing agents. Reducing agent Etchant and acids

10.6. Hazardous decomposition productsNitrogen oxides (NO_x).**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Harmful if inhaled.
Harmful in contact with skin.
Harmful if swallowed.

| CAS No | Chemical name | | | | |
|----------|------------------------------|---------------|----------|--------|----------|
| | Exposure route | Dose | Species | Source | Method |
| 141-43-5 | 2-aminoethanol; ethanolamine | | | | |
| | oral | LD50 mg/kg | 1089 | Rat | OECD 401 |
| | dermal | LD50 mg/kg | 2504 | Rabbit | OECD 402 |
| | inhalation vapour | ATE | 11 mg/l | | |
| | inhalation dust/mist | ATE | 1,5 mg/l | | |

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.
Serious eye damage/eye irritation: Causes serious eye damage.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause respiratory irritation. (2-aminoethanol; ethanolamine)

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information**12.1. Toxicity**

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| CAS No | Chemical name | | | | | |
|----------|------------------------------|-------|-----------|---------|-------------------------|----------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 141-43-5 | 2-aminoethanol; ethanolamine | | | | | |
| | Acute fish toxicity | LC50 | 105 mg/l | 96 h | Oncorhynchus mykiss | IUCLID |
| | Acute algae toxicity | ErC50 | 22 mg/l | 72 h | Desmodesmus subspicatus | |
| | Acute crustacea toxicity | EC50 | 27 mg/l | 48 h | Daphnia magna | OECD 202 |

12.2. Persistence and degradability

Product is biodegradable. OECD 301F

| CAS No | Chemical name | | | |
|----------|---|-------|----|--------|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 141-43-5 | 2-aminoethanol; ethanolamine | | | |
| | OECD 301 A | > 70% | 28 | |
| | Easily biodegradable (concerning to the criteria of the OECD) | | | |

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|----------|------------------------------|---------|
| 141-43-5 | 2-aminoethanol; ethanolamine | -1,91 |

BCF

| CAS No | Chemical name | BCF | Species | Source |
|----------|------------------------------|-----|---------|--------|
| 141-43-5 | 2-aminoethanol; ethanolamine | 2,5 | | |

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|--|--------------|
| 14.1. UN number or ID number: | UN 2491 |
| 14.2. UN proper shipping name: | ETHANOLAMINE |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |



| | |
|--------------------------|-----|
| Classification code: | C7 |
| Limited quantity: | 5 L |
| Transport category: | 3 |
| Hazard No: | 80 |
| Tunnel restriction code: | E |

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Other applicable information (land transport)

E1

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 2491
14.2. UN proper shipping name: ETHANOLAMINE
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8



Classification code: C7
 Limited quantity: 5 L
 Excepted quantity: E1

Other applicable information (inland waterways transport)

E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 2491
14.2. UN proper shipping name: ETHANOLAMINE
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8



Marine pollutant: no
 Special Provisions: 223
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-B

Other applicable information (marine transport)

E1

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 2491
14.2. UN proper shipping name: ETHANOLAMINE
14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8



Special Provisions: A3 A803
 Limited quantity Passenger: 1 L
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 852
 IATA-max. quantity - Passenger: 5 L
 IATA-packing instructions - Cargo: 856
 IATA-max. quantity - Cargo: 60 L

Other applicable information (air transport)

E1

: Y841

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14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

2 - obviously hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information**Abbreviations and acronyms**

Acute Tox. 4: Acute toxicity, hazard category 4

Skin Corr. 1B: Skin corrosion, sub-category 1B

Eye Dam. 1: Serious eye damage, hazard category 1

Skin Sens. 1: Skin sensitisation, hazard category 1

STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3

Relevant H and EUH statements (number and full text)

| | |
|----------------|---|
| H302 | Harmful if swallowed. |
| H302+H312+H332 | Harmful if swallowed, in contact with skin or if inhaled. |
| H312 | Harmful in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H412 | Harmful to aquatic life with long lasting effects. |