



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

1.1. Product identifier

Name of product elma rotol
UFI: PG40-G0NQ-W004-7EG7

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

Identified uses

Sector of uses [SU]

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Recommended intended purpose(s)

Polishing concentrate for polishing or grinding drum.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor Elma Schmidbauer GmbH
Gottlieb-Daimler-Str. 17, D-78224 Singen (Htwl.)
Phone +49 7731 882-0, Fax +49 7731 882-266
E-Mail info@elma-ultrasonic.com
Internet www.elma-ultrasonic.com

Advice Chemie/Labor: Email: chemlab@elma-ultrasonic.com

1.4. Emergency telephone number

Emergency advice Vergiftungs-Informations-Zentrale Freiburg
(Sprache/Language: D, GB)
Phone +49 761 19240

! SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

! Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

| Hazard classes and Hazard categories | Hazard Statements | Classification procedure |
|--------------------------------------|-------------------|--------------------------|
| Skin Irrit. 2 | H315 | Calculation method. |
| Eye Dam. 1 | H318 | Calculation method. |
| Repr. 2 | H361fd | Calculation method. |
| STOT RE 2 | H373 | Calculation method. |
| Aquatic Chronic 2 | H411 | Calculation method. |

Hazard Statements

| | |
|--------|---|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| H373 | May cause damage to organs (liver, blood, kidney, nervous system) through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects. |

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

GHS05



GHS08



GHS09

! Signal word

Danger

Hazard Statements

| | |
|--------|---|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| H373 | May cause damage to organs (liver, blood, kidney, nervous system) through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects. |

Precautionary Statements

| | |
|--------------------|--|
| P201 | Obtain special instructions before use. |
| P273 | Avoid release to the environment. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301 + P330 + P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| P302 + P352 | IF ON SKIN: Wash with plenty of water. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/attention. |
| P310 | Immediately call a doctor. |
| P332 + P313 | If skin irritation occurs: Get medical advice/attention. |

Hazardous ingredients for labelling

2,2'-iminodiethanol, Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl)

2.3. Other hazards

Acute Tox. 5 (oral) H303: May be harmful if swallowed.

Aquatic Acute 2 H401: Toxic to aquatic life.

Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

! SECTION 3: Composition/ information on ingredients**3.1. Substances**

not applicable

3.2. Mixtures**Description**

Aqueous, mildly alkaline mixture of fatty acid alkanol amides and amines.

! Hazardous ingredients



Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)

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Revision 05.07.2021 (GB) Version 1.7

elma rotol

Hazardous ingredients (continued)

| CAS No | EC No | Name | [% weight] | Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] |
|------------|-----------|--|------------|---|
| 68155-07-7 | 931-329-6 | Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl) | 60 - 85 | Skin Irrit. 2, H315 / Eye Dam. 1, H318 / Aquatic Chronic 2, H411 |
| 111-42-2 | 203-868-0 | 2,2'-iminodiethanol | 15 - 30 | Acute Tox. 4, H302 / Skin Irrit. 2, H315 / Eye Dam. 1, H318 / Repr. 2, H361fd / STOT RE 2, H373 / Aquatic Chronic 3, H412 |

REACH

| CAS No | Name | REACH registration number |
|------------|--|---------------------------|
| 68155-07-7 | Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl) | 01-2119490100-53 |
| 111-42-2 | 2,2'-iminodiethanol | 01-2119488930-28 |

Additional advice

Polishing agent. Application: Mixture of about 0,5% concentrate with 99,5% water. Recommendation: First dilute with demineralized water 1:5, then dilute this solution with tap water further up to 1:35.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated clothing immediately and dispose it safely.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.

Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Do not induce vomiting.

Refer to medical treatment.

If swallowed seek medical advice immediately and show the doctor packing or label.

Rinse out mouth thoroughly with water.

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

Physician's information / possible symptoms

No further informations available.

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

Treatment (Advice to doctor)

No further informations available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

water

Foam

Dry powder

Carbon dioxide



5.2. Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolyse products.

In the event of fire the following can be released:

Nitrogen gases (NO_x)

Carbon monoxide (CO)

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Do not inhale explosion and/or combustion gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Use personal protection.

High risk of slipping due to leakage/spillage of product.

For emergency responders

Use personal protective clothing.

Use personal protection.

Forms slippery surfaces with water.

High risk of slipping due to leakage/spillage of product.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

Flush away residues with water.

After taking up the material dispose according to regulation.

6.4. Reference to other sections

Informations for safe handling see chapter 7.

Informations for personal protective equipment see chapter 8.

Informations for disposal see chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Avoid formation of aerosols.

Care for thoroughly room ventilation.

Open and handle container with care!

General protective measures

Avoid contact with eyes and skin

Do not inhale aerosols

Hygiene measures

Provide washing facilities at place of work.

Keep away from food and drink.

Wash hands before breaks and after work.

Advice on protection against fire and explosion

The product is hardly combustible.

Pay attention to general rules of internal fire prevention.



7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in original container.

Advice on storage compatibility

Do not store together with oxidizing agents.

Further information on storage conditions

Keep locked up, out of reach of children

Keep container dry and tightly closed.

Protect of heat.

Do not store at temperature above 25°C (=77°F).

Protect from sun.

Keep under lock and key or accessible only to specialists or people authorized by them.

Do not keep at temperatures below 5°C.

Information on storage stability

Storage time: 3 years.

7.3. Specific end use(s)

Recommendation(s) for intended use

no further

! SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL-/PNEC-values

DNEL worker

| CAS No | Substance name | Value | Code | Remark |
|------------|---|------------------------|---|--------|
| 111-42-2 | 2,2'-iminodiethanol | 0,13 mg/kg bw/day | DNEL long-term dermal (systemic) | |
| | | 0,75 mg/m ³ | DNEL long-term inhalative (systemic) | |
| | | 0,5 mg/m ³ | DNEL long-term inhalative (local) | |
| 68155-07-7 | Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl) | 4,16 mg/kg bw/day | DNEL long-term dermal (systemic) | |

PNEC

| CAS No | Substance name | Value | Code | Remark |
|------------|---|------------|-----------------------------------|--------|
| 111-42-2 | 2,2'-iminodiethanol | 0,021 mg/l | PNEC aquatic, freshwater | |
| | | 100 mg/l | PNEC sewage treatment plant (STP) | |
| 68155-07-7 | Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl) | 830 mg/l | PNEC sewage treatment plant (STP) | |
| | | 0,007 mg/l | PNEC aquatic, freshwater | |

Additional advice

Occupational exposure limits of 2,2'-iminodiethanol.

8.2. Exposure controls

Respiratory protection

Breathing apparatus in the event of aerosol or mist formation.

Short term: filter apparatus, Filter A/P2



Hand protection

chemical-resistant gloves

Glove material specification [make/type, thickness, permeation time/life]: Butyl, 0,5mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: NBR, 0,35mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: FKM, 0,4mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: NR, 0,5mm, >=8h.

Eye protection

tightly fitting goggles

! Other protection measures

Light protective clothing.

Limitation and surveillance of the environment

Avoid penetration into the subsoil/soil.

Do not discharge into surface waters.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

viscous

Colour

yellowy-brown

Odour

similar to amine

Odour threshold

2,2'-iminodiethanol: 1.2 mg/m³ (0.27 ppm).

Important health, safety and environmental information

| | Value | Temperature | at | Method | Remark |
|----------------------------------|------------------------|-------------|----|--------|-------------------------------|
| pH value | 10,2 | 20 °C | | | |
| starts to boil | >= 100 °C | | | | |
| starts to melt | >= 0 °C | | | | |
| Flash point | >= 100 °C | | | | |
| Flammable (solid) | not applicable | | | | |
| Flammability (gas) | not applicable | | | | |
| Ignition temperature | not determined | | | | |
| Self ignition temperature | | | | | not spontaneously flammable |
| Lower explosion limit | 2,1 Vol-% | | | | Value of 2,2'-iminodiethanol. |
| Upper explosion limit | 10,6 Vol-% | | | | Value of 2,2'-iminodiethanol. |
| Vapour pressure | not determined | | | | |
| Relative density | 1,00 g/cm ³ | 20 °C | | | |



Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 06.07.2021

Revision 05.07.2021 (GB) Version 1.7

elma rotol

| | Value | Temperature | at | Method | Remark |
|--|----------------|-------------|----|------------|--|
| Vapour density | 3,62 | | | | Value of 2,2'-iminodiethanol. |
| Solubility in water | | | | | miscible |
| Solubility/other | not determined | | | | |
| Partition coefficient n-octanol/water (log P O/W) | 3,5 - 4,2 | | | | Value of Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl). |
| Decomposition temperature | >= 100 °C | | | | |
| Viscosity | 1500 mPa*s | 20 °C | | Brookfield | |
| Solvent content | 0 % | | | | |
| Vapourisation rate not available | | | | | |
| Oxidising properties no | | | | | |
| Explosive properties no | | | | | |
| 9.2. Other information No further relevant informations available. | | | | | |

SECTION 10: Stability and reactivity**10.1. Reactivity**

Evolution of heat under influence of acids.

No further hazardous reactions known if used as directed.

10.2. Chemical stability

Stable at ambient temperature.

10.3. Possibility of hazardous reactions

Reactions with acids.

Reactions with oxidising agents.

Reaction with nitric acid

10.4. Conditions to avoid

Heat and direct solar radiation.

10.5. Incompatible materials**Substances to avoid**

Reactions with acids.

Reactions with oxidising agents.

Reaction with nitric acid



10.6. Hazardous decomposition products

No decomposition if used as directed.

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

| | Value/Validation | Species | Method | Remark |
|---------------------------|---|---------|-------------------------------|--------|
| LD50 acute oral | 3700 mg/kg | | ATE (acute toxicity estimate) | |
| LD50 acute dermal | > 5000 mg/kg | | ATE (acute toxicity estimate) | |
| Skin irritation | irritant | | | |
| Eye irritation | risk of strong eye injuries | | | |
| Skin sensitization | The mixture is not classified as skin sensitiser. | | | |

Specific target organ toxicity (single exposure)

The mixture is not classified as specific target organ toxicant (single exposure).

! Specific target organ toxicity (repeated exposure)

STOT RE 2 H373: May cause damage to organs (liver, blood, kidney, nervous system) through prolonged or repeated exposure.

Aspiration hazard

The mixture is not classified as aspiration hazardous.

! Toxicity test (Additional information)

The mixture is not classified as mutagen / not classified as carcinogen.

The mixture is classified as reproductive toxicant: Repr. 2 H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.

Experiences made from practice

Has a degreasing effect on the skin.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

| | Value | Species | Method | Validation |
|----------------|---------------|---------|------------|-----------------------------|
| Fish | LC50 3 mg/l | | calculated | EqNOEC(Fish): 0,4mg/l. |
| Daphnia | EC50 2,8 mg/l | | calculated | EqNOEC(Daphnia): 0,086mg/l. |
| Algae | EC50 2,2 mg/l | | calculated | |

12.2. Persistence and degradability

| | | | |
|---------------------------------------|-------|--------------|-------------------------------|
| Physico-chemical degradability | 100 % | COD decrease | Activated charcoal adsorption |
|---------------------------------------|-------|--------------|-------------------------------|



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No. 1907/2006 (REACH)

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Revision 05.07.2021 (GB) Version 1.7

elma rotol

| | Elimination rate | Method of analysis | Method | Validation |
|---------------------------------|------------------|--------------------|--------|--------------------|
| Biological degradability | > 85 % | DOC decrease | | readily degradable |

12.3. Bioaccumulative potential

Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl): Because of the n-octanol/water partition coefficient accumulation in organisms is possible (log Pow >3).

2,2'-iminodiethanol: Accumulation in organisms is not expected (log Pow: -2.18).

12.4. Mobility in soil

Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl): Koc: 243, moderately mobile in soil.

2,2'-iminodiethanol: Adsorption on soil is not expected.

12.5. Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

12.6. Other adverse effects

No further relevant informations available.

Additional ecological information

| | Value | Method | Remark |
|------------|--|--------|--------|
| COD | 2,4 gO2/g | | |
| AOX | The product does not contain any organically bound halogens according to the recipe. | | |

General regulation

The surfactants in our product meet the criteria for biodegradation as laid down in Annex III of the Regulation (EC) No 648/2004 on detergents.

Acute aquatic environmental hazards: Aquatic Acute 2 H401: Toxic to aquatic life.

Chronic aquatic environmental hazards: Aquatic Chronic 2 H411: Toxic to aquatic life with long lasting effects.

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.

20 01 29*

Name of waste

detergents containing hazardous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product

Do not dispose with household waste.

Remove in accordance with local official regulations.

Product rests: send for disposal, e.g. special waste incineration.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

Recommended cleansing agent

Water



SECTION 14: Transport information

| | ADR/RID | IMDG | IATA-DGR |
|---|--|---|---|
| 14.1. UN number | UN 3082 | UN 3082 | UN 3082 |
| 14.2. UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N. O.S. (contains Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl)) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl)) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Amides, C8-18 (even numbered) and C18-unsatd., N,N-bis(hydroxyethyl)) |
| 14.3. Transport hazard class(es) | 9 | 9 | 9 |
| 14.4. Packing group | III | III | III |
| 14.5. Environmental hazards | Yes | Yes | Yes |
| 14.6. Special precautions for user | no | | |
| 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | not relevant | | |
| Land and inland navigation transport ADR/RID | | | |
| Hazard label(s) | 9 | | |
| Tunnel restriction code | E | | |
| elma rotol does not require labeling according to ADR 3.3 SP 375 [containers up to 5 litre]. | | | |
| Marine transport IMDG | | | |
| MARINE POLLUTANT | | | |
| elma rotol does not require labeling according to IMDG-Code, 2.10.2.7 [containers up to 5 litre]. | | | |
| Air transport ICAO/IATA-DGR | | | |
| elma rotol does not require labeling according to IATA, A197 [containers up to 5 litre]. | | | |

!SECTION 15: Regulatory information

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

Authorizations

not relevant

Application restrictions

Regulation (EC) No 1907/2006 (REACH), Annex XVII No 3 - not relevant if used as directed.

Other regulations (EU)

Regulation (EC) No 648/2004 (Detergents regulation).

Directive 2012/18/EU, Annex I: E2.

VOC standard

VOC content 0 %

15.2. Chemical Safety Assessment

For this mixture a chemical safety assessment were not carried out.



SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

These data are given according to our actual knowledge about this product. This data sheet does not correspond to an assurance by virtue of a contract for properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.6

Sources of key data used

Own measurements.

European Chemicals Agency, <http://echa.europa.eu/>.

Informations from our suppliers.

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H361fd Suspected of damaging fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
- H373 May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.