

04.11.2020

Kit Components

Product code	Description
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7420-200407	ergo 7420
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Components:

7418-200407	ergo 7418 - Component A ergo 7420
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7419-200407	ergo 7419 - Component B ergo 7420
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Safety data sheet according to 1907/2006/EC, Article 31

Printing date 04.11.2020

Version number 3

Revision: 04.11.2020

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

- 1.1 Product identifier

- Trade name: ergo 7418 - Component A ergo 7420

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

No further relevant information available.

- Application of the substance / the mixture

Epoxy resin adhesive

Resin

- 1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier:

Kisling AG

Motorenstrasse 102

CH-8620 Wetzikon

Tel: +41- 58-272 0 272

- Further information obtainable from: ergo@kisling.com

- Department issuing MSDS: ergo@kisling.com

- 1.4 Emergency telephone number:

Tox Info Suisse: 145 / +41-44-2 51 51 51

+49-700-24 112 112 (KAR)

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

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

- 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- Hazard pictograms



GHS07 GHS09

- Signal word Warning

- Hazard-determining components of labelling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

- Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

- Precautionary statements

P261 Avoid breathing vapours.

P280 Wear protective gloves / eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

- Additional information:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

- Labelling of packages where the contents do not exceed 125 ml
- Hazard pictograms


GHS07 GHS09

- Signal word Warning

- Hazard-determining components of labelling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

- Hazard statements

H317 May cause an allergic skin reaction.

- Precautionary statements

P261 Avoid breathing vapours.

P280 Wear protective gloves / eye protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

- 2.3 Other hazards
- Results of PBT and vPvB assessment

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Mixtures

- **Description:** Adhesive

- Dangerous components:

CAS: 25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	> 50 - \leq 100%
NLP: 500-033-5		
Index number: 603-074-00-8	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
Reg.nr.: 01-2119456619-26-xxxx		

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures

- **General information:** Remove any clothing soiled by the product.

- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:

After contact with skin, wash immediately with plenty of soap and water.

If skin irritation continues, consult a doctor.

- After eye contact:

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

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

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- **After swallowing:**
Rinse out mouth and then drink plenty of water.
If swallowed, do not induce vomiting: seek medical advice and show this container or label.
- **4.2 Most important symptoms and effects, both acute and 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: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow product to reach sewage system or any water course.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 10 for information on "stability and reactivity".
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Storage class (TRGS 510, Storage of hazardous substances in non-stationary containers):** 10-13
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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- 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists valid during the making were used as basis.

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Clean skin thoroughly immediately after handling the product.

- Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter A/P2

- Protection of hands:

Protective gloves (EN 374)

Check protective gloves prior to each use for their proper condition.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form: Pasty

Colour: Light yellow

- **Odour:** Characteristic

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- Change in condition

Melting point/freezing point: Undetermined.

Initial boiling point and boiling range: Undetermined.

- **Flash point:** >100 °C

- **Flammability (solid, gas):** Not applicable.

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not self-igniting.

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- Explosive properties:	Product does not present an explosion hazard.
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- Explosion limits:	
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 Lower:	Not determined.
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 Upper:	Not determined.
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- Oxidising properties	Not determined.
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- Vapour pressure:	Not determined.
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- Density:	Not determined.
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- Relative density	Not determined.
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- Vapour density	Not determined.
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- Evaporation rate	Not determined.
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- Solubility in / Miscibility with water:	Not miscible or difficult to mix.
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- Partition coefficient: n-octanol/water:	Not determined.
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- Viscosity:	
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 Dynamic:	Not determined.
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 Kinematic:	Not determined.
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- 9.2 Other information	No further relevant information available.
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SECTION 10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.

- 10.2 Chemical stability

- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

- 10.3 Possibility of hazardous reactions

Reacts with strong alkali.

Reacts with strong acids.

Reacts with strong oxidising agents.

- 10.4 Conditions to avoid No further relevant information available.

- 10.5 Incompatible materials: No further relevant information available.

- 10.6 Hazardous decomposition products:

No dangerous products of decomposition if used and stored according to specifications.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects

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

- LD/LC50 values relevant for classification:

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
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Oral	LD50	11,400 mg/kg (Rat, male/female)
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- Primary irritant effect:

- Skin corrosion/irritation

Causes skin irritation.

- Serious eye damage/irritation

Causes serious eye irritation.

- Respiratory or skin sensitisation

May cause an allergic skin reaction.

- Additional toxicological information:

No experimentally found toxicological data are available for this preparation.

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- **CMR effects (carcinogenicity, mutagenicity and toxicity 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** Based on available data, the classification criteria are not met.
- **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**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Danger to drinking water if even small quantities leak into the ground.
Do not allow product to reach ground water, water course or undiluted sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---------------------------------------|--|
| - 14.1 UN-Number | |
| - ADR, IMDG, IATA | UN3082 |
| - 14.2 UN proper shipping name | |
| - ADR | 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)) |
| - IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT |
| - IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)) |

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- 14.3 Transport hazard class(es)**- ADR**

- Class 9 (M6) Miscellaneous dangerous substances and articles.
- Label 9

- IMDG, IATA

- Class 9 Miscellaneous dangerous substances and articles.
- Label 9

- 14.4 Packing group**- ADR, IMDG, IATA** III**- 14.5 Environmental hazards:**

- Marine pollutant: Symbol (fish and tree)
- Special marking (ADR): Symbol (fish and tree)
- Special marking (IATA): Symbol (fish and tree)

- 14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

- Hazard identification number (Kemler code): 90
- EMS Number: F-A,S-F
- Stowage Category A

- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

- Transport/Additional information:

ADR: SV375
 IMDG-Code: 2.10.2.7
 IATA-DGR: A197 (375)

- ADR

- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

- Transport category

3

- Tunnel restriction code

E

- Remarks:

SV375:

These substances are not subject to the other provisions of ADR / RID if they are transported in individual or composite packaging with a net quantity of no more than 5 l of liquid substances or a net mass of no more than 5 kg of solids per individual or inner packaging, provided that the packaging is used correspond to the general provisions of subsections 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

- IMDG**- Limited quantities (LQ)** 5L

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- Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- Remarks:

2.10.2.7:

Marine pollutants in individual packaging or composite packaging with a net quantity per individual or inner packaging of no more than 5 L for liquids or a net mass per individual or inner packaging of no more than 5 kg for solids are not subject to any other provisions of this Code applicable to marine pollutants, provided that the packaging complies with the general requirements in 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants that also meet the criteria for inclusion in another class, all provisions of this Code that apply to any further hazards continue to apply.

- IATA**- Remarks:**

A 197 (375):

These substances when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass of 5 kg or less for solids, are not subject to any other provisions of these Regulations provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

- UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT ≤ 700)), 9, III

SECTION 15: Regulatory information**- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****- REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3**- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

- National regulations:**- Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.**- 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

- 1.1 Product identifier

- Trade name: ergo 7419 - Component B ergo 7420

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

No further relevant information available.

- Application of the substance / the mixture

Epoxy resin adhesive

Hardening agent / Curing agent

- 1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier:

Kisling AG

Motorenstrasse 102

CH-8620 Wetzikon

Tel: +41- 58-272 0 272

- Further information obtainable from: ergo@kisling.com

- Department issuing MSDS: ergo@kisling.com

- 1.4 Emergency telephone number:

Tox Info Suisse: 145 / +41-44-2 51 51 51

+49-700-24 112 112 (KAR)

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008

Skin Corr. 1C H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- Hazard pictograms



GHS05 GHS07

- Signal word Danger

- Hazard-determining components of labelling:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Butadiene-acrylonitrile copolymer

Fatty acids, C18 unsaturated dimers, polymers with tall oil fatty acids and triethylenetetramine

3,6-diazaoctanethylenediamin

- Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

- Precautionary statements

P260 Do not breathe vapours.

P280 Wear protective gloves / eye protection.

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

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P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 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/doctor.

- Labelling of packages where the contents do not exceed 125 ml
 - Hazard pictograms



GHS05 GHS07

- Signal word Danger

- Hazard-determining components of labelling:

N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Butadiene-acrylonitrile copolymer

Fatty acids, C18 unsaturated dimers, polymers with tall oil fatty acids and triethylenetetramine

3,6-diazaoctanethylenediamin

- Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

- Precautionary statements

P260 Do not breathe vapours.

P280 Wear protective gloves / eye protection.

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

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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/doctor.

- 2.3 Other hazards

- Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Mixtures

- Description: Adhesive

- Dangerous components:

CAS: 68683-29-4	Butadiene-acrylonitrile copolymer Skin Irrit. 2, H315; Skin Sens. 1, H317	> 30 - ≤ 50%
CAS: 68082-29-1 NLP: 500-191-5	Fatty acids, C18 unsaturated dimers, polymers with tall oil fatty acids and triethylenetetramine Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	> 30 - ≤ 50%
CAS: 10563-29-8 EINECS: 234-148-4	N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine Skin Corr. 1A, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	> 15 - ≤ 30%
CAS: 112-24-3 EINECS: 203-950-6 Index number: 612-059-00-5	3,6-diazaoctanethylenediamin Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	> 1 - < 2.5%

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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures

- **General information:** Immediately remove any clothing soiled by the product.

- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:

After contact with skin, wash immediately with plenty of soap and water.

If skin irritation continues, consult a doctor.

- After eye contact:

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

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

- After swallowing:

Rinse out mouth and then drink plenty of water.

If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

- 4.2 Most important symptoms and effects, both acute and 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: Firefighting measures

- 5.1 Extinguishing media

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

- 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- 5.3 Advice for firefighters

- Protective equipment:

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

- Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow product to reach sewage system or any water course.

- 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

- 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 10 for information on "stability and reactivity".

See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions are necessary if used correctly.

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- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Storage class (TRGS 510, Storage of hazardous substances in non-stationary containers):** 8 B
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- DNELs

112-24-3 3,6-diazaoctanethylenediamin

Oral	Acute, System	20 mg/kg (General population)
	Longterm System	0.41 mg/kg bw/day (General population)
Dermal	Acute, Local	1 mg/kg (General population)
	Acute, System	8 mg/kg bw (General population)
	Longterm Local	0.028 mg/kg bw/day (Worker)
Inhalative	Longterm System	0.57 mg/kg bw/day (Worker)
	Acute, System	1,600 mg/m ³ (General population)
		5,380 mg/m ³ (Worker)
	Longterm System	0.29 mg/m ³ (General population)
		1 mg/m ³ (Worker)

- PNECs

112-24-3 3,6-diazaoctanethylenediamin

PNEC Freshwater	0.19 mg/l
PNEC Freshwater sed	95.9 mg/kg
PNEC Marinewater	0.038 mg/l
PNEC Soil	19.1 mg/kg
PNEC STP	4.25 mg/l
PNEC Marinewater sed	19.2 mg/kg

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
Use suitable respiratory protective device in case of insufficient ventilation.
Combination filter ABEK-ST-P3

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- Protection of hands:

Protective gloves (EN 374)

Check protective gloves prior to each use for their proper condition.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Tightly sealed goggles**- Body protection:** Use protective suit.

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties**- General Information****- Appearance:**

Form:	Pasty
Colour:	Light yellow
- Odour:	Characteristic
- Odour threshold:	Not determined.

- pH-value: Not determined.**- Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.

- Flash point: Not applicable.**- Flammability (solid, gas):** Not applicable.**- Decomposition temperature:** Not determined.**- Auto-ignition temperature:** Product is not self-igniting.**- Explosive properties:** Product does not present an explosion hazard.**- Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

- Oxidising properties Not determined.**- Vapour pressure:** Not determined.**- Density:** Not determined.**- Relative density** Not determined.**- Vapour density** Not determined.**- Evaporation rate** Not determined.**- Solubility in / Miscibility with****water:** Not miscible or difficult to mix.**- Partition coefficient: n-octanol/water:** Not determined.

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- | | |
|--------------------------------|--|
| - Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| - 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Strong exothermic reaction with acids.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
No dangerous products of decomposition if used and stored according to specifications.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

10563-29-8 N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

Oral	LD50	1,670 mg/kg (Rat, male/female)
Dermal	LD50	1,310 mg/kg (Rabbit)

112-24-3 3,6-diazaoctanethylenediamin

Oral	LD50	1,716 mg/kg (Rabbit)
Dermal	LD50	1,465 mg/kg (Rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
OECD 435: Skin Corr. 1C
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Additional toxicological information:**
No experimentally found toxicological data are available for this preparation.
- **CMR effects (carcinogenicity, mutagenicity and toxicity 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** Based on available data, the classification criteria are not met.
- **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**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.

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- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
 Must not reach sewage water or drainage ditch undiluted or unneutralised.
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 Danger to drinking water if even small quantities leak into the ground.
 Do not allow product to reach ground water, water course or undiluted sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

<ul style="list-style-type: none"> - 14.1 UN-Number - ADR, IMDG, IATA 	UN2735
<ul style="list-style-type: none"> - 14.2 UN proper shipping name - ADR - IMDG, IATA 	2735 AMINES, LIQUID, CORROSIVE, N.O.S. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine, TRIETHYLENETETRAMINE) AMINES, LIQUID, CORROSIVE, N.O.S. (N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine, TRIETHYLENETETRAMINE)
<ul style="list-style-type: none"> - 14.3 Transport hazard class(es) - ADR 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> - Class - Label 	8 (C7) Corrosive substances. 8
<ul style="list-style-type: none"> - IMDG, IATA 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> - Class - Label 	8 Corrosive substances. 8
<ul style="list-style-type: none"> - 14.4 Packing group - ADR, IMDG, IATA 	III
<ul style="list-style-type: none"> - 14.5 Environmental hazards: 	Not applicable.
<ul style="list-style-type: none"> - 14.6 Special precautions for user - Hazard identification number (Kemler code): 	Warning: Corrosive substances. 80

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- EMS Number:	F-A,S-B
- Segregation groups	Alkalis
- Stowage Category	A
- Segregation Code	SG35 Stow "separated from" SGG1-acids
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
- Transport/Additional information:	
- ADR	
- Limited quantities (LQ)	5L
- Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
- Transport category	3
- Tunnel restriction code	E
- IMDG	
- Limited quantities (LQ)	5L
- Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
- UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (N'- (3-AMINOPROPYL)-N,N-DIMETHYLPROPANE-1,3- DIAMINE, TRIETHYLENETETRAMINE), 8, III

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

- National regulations:

- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity - oral – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Corr. 1C: Skin corrosion/irritation – Category 1C
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- * **Data compared to the previous version altered.**

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