

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

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

- 1.1 Product identifier

- Trade name: ergo 7012

- 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

Telefon: +41-(0) 58-272 0 272

Telefax: +41-(0) 58-272 0 273

- Further information obtainable from: Safety Department

- Department issuing MSDS: ergo@kisling.com

- 1.4 Emergency telephone number: Swiss Toxicological Information Centre: +41-(0) 44-2 51 51 51

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 Dam. 1 H318 Causes serious eye damage.

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

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Not applicable

Xi; Sensitising

R43: May cause sensitisation by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- 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

(Contd. on page 2)

CHGEN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7012

(Contd. of page 1)

N,N,4-trimethylpiperazine-1-ethylamine

- Hazard statements

- H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H317 May cause an allergic skin reaction.
 H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements

- P260 Do not breathe mist/vapours/spray.
 P280 Wear protective gloves / eye protection.
 P273 Avoid release to the environment.
 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.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- 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: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29-xxxx	n-butyl acetate R10-66-67 Flam. Liq. 3, H226; STOT SE 3, H336	1-<3%
CAS: 14970-87-7 EINECS: 239-044-2	2,2'-[1,2-ethanediylbis(oxy)]bis(ethanethiol) Xn R20/22; N R51/53 Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H332	1-<3%
CAS: 90-72-2 EINECS: 202-013-9 Index number: 603-069-00-0	2,4,6-tris(dimethylaminomethyl)phenol Xn R22; Xi R36/38 Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	1-<3%
CAS: 10563-29-8 EINECS: 234-148-4	N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine C R34; Xn R21/22; Xi R43 Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	1-<3%
CAS: 104-19-8 EINECS: 203-183-7	N,N,4-trimethylpiperazine-1-ethylamine T R24; C R34; Xn R22 Acute Tox. 3, H311; Skin Corr. 1B, H314; Acute Tox. 4, H302	1-<3%

- Additional information: For the wording of the listed risk 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.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7012

(Contd. of page 2)

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.

- 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: 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.

Ensure adequate ventilation

Keep away from ignition sources.

- 6.2 Environmental precautions:

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

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

- 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.

Ensure adequate ventilation.

- 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

In case of hypersensitivity of the respiratory tract (e.g. asthmatics and those who suffer from chronic bronchitis) it is inadvisable to work with the product.

Ensure good ventilation/exhaustion at the workplace.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

- Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.

- 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.

(Contd. on page 4)

CHGEN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7012

(Contd. of page 3)

- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Maximum storage temperature:** 40 °C
- **Minimum storage temperature:** 2 °C
- **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:

123-86-4 n-butyl acetate

MAK (Switzerland)	Short-term value: 960 mg/m ³ , 200 ppm Long-term value: 480 mg/m ³ , 100 ppm SSc;
-------------------	---

- DNELs

123-86-4 n-butyl acetate

Inhalative	Akut, Lokale Effekte	859,7 mg/m ³ (all) 960 mg/m ³ (ber)
	Akut, Systemische Effekte	859,7 mg/m ³ (all) 960 mg/m ³ (ber)
	Langzeit, Lokale Effekte	102,34 mg/m ³ (all) 480 mg/m ³ (ber)
	Langzeit, Systemische Effekte	102,34 mg/m ³ (all) 480 mg/m ³ (ber)

- PNECs

123-86-4 n-butyl acetate

PNEC Boden	0,0903 mg/kg Boden (-)
PNEC Kläranlage	35,6 mg/l (-)
PNEC Meerwasser	0,018 mg/l (-)
PNEC Meerwassersediment	0,0981 mg/kg Sediment (-)
PNEC Süßwasser	0,18 mg/l (-)
PNEC Süßwassersediment	0,981 mg/kg Sediment (-)

- **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.

- 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.

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

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7012

(Contd. of page 4)

- Material of gloves

Butyl rubber, BR

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:** Viscous**Colour:** Light yellow**- Odour:** Light**- Odour threshold:** Not determined.**- pH-value:** Not determined.**- Change in condition****Melting point/Melting range:** Undetermined.**Boiling point/Boiling range:** > 200 °C**- Flash point:** > 100 °C (DIN 51758)**- Flammability (solid, gaseous):** Not applicable.**- Ignition temperature:****Decomposition temperature:** Not determined.**- Self-igniting:** Product is not self-igniting.**- Danger of explosion:** Product does not present an explosion hazard.**- Explosion limits:****Lower:** Not determined.**Upper:** Not determined.**- Vapour pressure:** Not determined.**- Density at 25 °C:** 1,16 g/cm³**- 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.**- Viscosity:****Dynamic at 25 °C:** 20 - 40 Pas**Kinematic:** Not determined.**- 9.2 Other information** No further relevant information available.

CHGEN

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7012

(Contd. of page 5)

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Protect from heat and direct sunlight.
- **10.3 Possibility of hazardous reactions**
Strong exothermic reaction with acids.
Reacts with strong alkali.
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**

- LD/LC50 values relevant for classification:

123-86-4 n-butyl acetate		
Oral	LD50	10760 - 13100 mg/kg (rat) (OECD 423 / IUCLID)
Dermal	LD50	> 14,100 mg/kg (rab) (OECD 402 / IUCLID)
Inhalative	LC50/4 h	23,4 mg/l (rat) (OECD 403)
Irritation of skin	Hautreizung	- (rab) (OECD 404)
Irritation of eyes	Augenreizung	- (rab) (OECD 405)
Sensitisation	Sensibilisierung	- (gen) (OECD 406)
	Sensibilisierung (Maximierungstest)	- (gen)
	Sensibilisierung [Mausohrschwellungstest (MEST)]	- (mou)
	Ames-Test	- (-) (Ames-Test)
90-72-2 2,4,6-tris(dimethylaminomethyl)phenol		
Oral	LD50	1200 mg/kg (rat)
Dermal	LD50	1280 mg/kg (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
No experimentally found toxicological data are available for this preparation.

-CHGEN-

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7012

(Contd. of page 6)

SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

123-86-4 n-butyl acetate

EC50/48 h	44 mg/l (DA)
EC50/72 h	647,7 mg/l (Desmodesmus subspicatus)
IC50/40 h	356 mg/l (Tetrahymena)
LC50/96 h	18 mg/l (Pimephales promelas) (OECD 203)
NOEC	200 mg/l (Desmodesmus subspicatus)

- **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:** Harmful to fish

- Additional ecological information:

- General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Harmful to aquatic organisms

- 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** Void

- 14.2 UN proper shipping name

- **ADR, IMDG, IATA** Void

- 14.3 Transport hazard class(es)

- **ADR, ADN, IMDG, IATA**

- **Class** Void

- 14.4 Packing group

- **ADR, IMDG, IATA** Void

- 14.5 Environmental hazards:

Not applicable.

- 14.6 Special precautions for user

Not applicable.

- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

(Contd. on page 8)

-CHGEN-

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7012

(Contd. of page 7)

- UN "Model Regulation":

-

SECTION 15: Regulatory information

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

- National regulations:

- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly 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**

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- 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.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- R10 Flammable.
- R20/22 Harmful by inhalation and if swallowed.
- R21/22 Harmful in contact with skin and if swallowed.
- R22 Harmful if swallowed.
- R24 Toxic in contact with skin.
- R34 Causes burns.
- R36/38 Irritating to eyes and skin.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

- **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
- 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
- Flam. Liq. 3: Flammable liquids, Hazard Category 3
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Acute Tox. 3: Acute toxicity, Hazard Category 3
- Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

(Contd. on page 9)

CHGEN

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7012

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

(Contd. of page 8)

CHGEN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

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

- 1.1 Product identifier

- Trade name: ergo 7112

- 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

Telefon: +41-(0) 58-272 0 272

Telefax: +41-(0) 58-272 0 273

- Further information obtainable from: Safety Department

- Department issuing MSDS: ergo@kisling.com

- 1.4 Emergency telephone number: Swiss Toxicological Information Centre: +41-(0) 44-2 51 51 51

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.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Not applicable

Xi; Irritant

R36/38: Irritating to eyes and skin.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- 2.2 Label elements

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

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

(Contd. on page 2)

CHGEN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7112

(Contd. of page 1)

- 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)
1,4-bis(2,3-epoxypropoxy)butane

- 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 mist/vapours/spray.
P280 Wear protective gloves / eye protection.
P273 Avoid release to the environment.
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.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Additional information:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

- 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 NLP: 500-033-5 Index number: 603-074-00-8 Reg.nr.: 01-2119456619-26-xxxx	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) Xi R36/38; Xi R43; N R51/53 ----- Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25-<100%
CAS: 2425-79-8 EINECS: 219-371-7 Index number: 603-072-00-7 Reg.nr.: 01-2119494060-45-xxxx	1,4-bis(2,3-epoxypropoxy)butane Xn R20/21/22; Xi R36/38; Xi R43 R52/53 ----- Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	3-<10%

- **Additional information:** For the wording of the listed risk 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.

(Contd. on page 3)

-CHGEN-

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7112

(Contd. of page 2)

- **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.
- **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:** 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.
Keep away from ignition sources.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
- **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**
In case of hypersensitivity of the respiratory tract (e.g. asthmatics and those who suffer from chronic bronchitis) it is inadvisable to work with the product.
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.

(Contd. on page 4)

CHGEN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7112

(Contd. of page 3)

- **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:**
 - Store in cool, dry conditions in well sealed receptacles.
 - Protect from heat and direct sunlight.
 - Store receptacle in a well ventilated area.
- **Maximum storage temperature:** 40 °C
- **Minimum storage temperature:** 2 °C
- **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.
- **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.
- **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.
 - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
 - Butyl rubber, BR
 - 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 trough 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:	Fluid
Colour:	Light yellow

(Contd. on page 5)

-CHGEN-

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7112

(Contd. of page 4)

- Odour:	Weak, characteristic
- Odour threshold:	Not determined.
- pH-value at 20 °C:	6
- Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 200 °C
- Flash point:	> 200 °C (DIN 51758)
- Flammability (solid, gaseous):	Not applicable.
- Ignition temperature:	
Decomposition temperature:	Not determined.
- Self-igniting:	Product is not self-igniting.
- Danger of explosion:	Product does not present an explosion hazard.
- Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
- Vapour pressure:	Not determined.
- Density at 25 °C:	1,17 g/cm ³
- 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.
- Viscosity:	
Dynamic at 25 °C:	25 - 45 Pas
Kinematic:	Not determined.
- 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **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 acids.
Reacts with strong alkali.
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.

- CHGEN -

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7112

(Contd. of page 5)

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects

- Acute toxicity

- LD/LC50 values relevant for classification:

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

Oral	LD50	11400 mg/kg (rat)
------	------	-------------------

- Primary irritant effect:

- **Skin corrosion/irritation** Irritant to skin and mucous membranes.

- **Serious eye damage/irritation** Causes serious eye irritation.

- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.

- Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

No experimentally found toxicological data are available for this preparation.

SECTION 12: Ecological information

- 12.1 Toxicity

- **Aquatic toxicity:** No further relevant information available.

- **12.2 Persistence and degradability** No further relevant information available.

- **Other information:** The product is not easily biodegradable.

- **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:

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.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- 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:

(Contd. on page 7)

CHGEN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7112

(Contd. of page 6)

-	bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
- IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)), MARINE POLLUTANT
- IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700))

- 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:	Yes
- 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.

- Danger code (Kemler):	90
- EMS Number:	F-A,S-F

- 14.7 Transport in bulk according to Annex II of MARPOL73/78 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

(Contd. on page 8)

CHGEN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 25.05.2015

Version number 1

Revision: 25.05.2015

Trade name: ergo 7112

(Contd. of page 7)

- Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- UN "Model Regulation":UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)), 9, III**SECTION 15: Regulatory information****- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****- 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.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R36/38 Irritating to eyes and skin.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- 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

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

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

CHGEN