





Trade name: Component A: Resin of 2-Component Epoxy Resin Kit**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- 1.1 Product identifier
- Trade name: Component A: Resin of 2-Component Epoxy Resin Kit
- 1.2 Relevant identified uses of the substance or mixture and used advised against
The resin and hardener are packaged in two separate containers.
The hardener is added to the resin and mixed thoroughly until the material is evenly. Once mixed, the material can be used until the maximum open time is reached.
- Application of the substance / the mixture: Two part adhesive mortar for bonding or bedding elements.
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Good Use Hardware Co., Ltd.
No. 99-2, Cinan Road, DaShe District,
81546 Kaohsiung City, Taiwan
- Further information obtainable from: info@gooduse.com.tw
- 1.4 Emergency telephone number: Good Use Hardware Co., Ltd. Tel: 886-7-3535170

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
 - Classification according to Regulation (EC) No 1272/2008
 -  GHS09 environment
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

 -  GHS07
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Eye Irrit. 2 H319 Causes serious eye irritation.

- 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 ≤ 700)
- Hazard statements
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.
- Precautionary statements
P262 Do not get in eyes, on skin, or on clothing.
P264 Wash thoroughly after handling.

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit

- P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 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.
 P312 Call a POISON CENTER/doctor, if you feel unwell.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards

Other hazards: Not applicable.

PBT & vPvB: Does not contain any PBT or vPvB substances.

SECTION 3: Composition/information on ingredients
3.2 Chemical characterisation: Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

Composition/information on ingredients:

| | | RANGE |
|--|--|-----------|
| CAS: 25068-38-6 EINECS: 500-033-5 EU-INDEX: 603-074-00-8 | reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) GHS/CLP: Aquatic Chronic 2: H411; Skin Irrit. 2: H315; Eye Irrit. 2: H319; Skin Sens. 1: H317 | 55 - 100% |
| CAS: 471-34-1 EINECS: 207-439-9 | calcium carbonate substance with a Community workplace exposure limit | 25 - 35% |

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: Take off all contaminated clothing and shoes. Wash immediately with plenty of soap and water.

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:

Do not use any solvent. Remove contaminated clothes.

Get medical attention if symptoms develop. Immediately wash skin with water and soap and rinse thoroughly.

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit
After eye contact:

Wash immediately and abundantly with running water for at least 15 minutes, keeping eyes open.

In case the eyes are injured, or in case there is irritation, seek for medical advice/treatment.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After ingestion:

Rinse mouth and get plenty of water to drink. Do not induce vomiting.

Slowly dilute with 1 - 2 glasses of water and get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness.



· **4.3 Indication of any immediate medical attention and special treatment needed**

Immediate/special treatment: Show this safety data sheet to the doctor.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
dry chemical powder, carbon dioxide, water spray.

· **For safety reasons unsuitable extinguishing agents:** Do not use direct water jet.

· **5.2 Special hazards arising from the substance or mixture**

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Contact with combustible material may cause fire.

· **5.3 Advice for firefighters**

· **Protective equipment:**

In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Avoid breathing vapours.

Wear protective clothing, rubber or plastic coated gloves, and eye/face protection.

Keep away from ignition sources.

· **6.2 Environmental precautions:**

Do not allow product to enter sewers/surface or ground water or 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:**

Pick up mechanically using appropriate tools.

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

Ensure adequate ventilation.

· **6.4 Reference to other sections**

See SECTION 7 + 8 + 13 of SDS.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Avoid contact with skin and eyes.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit

Do not eat, drink, or smoke during work. Wash hands before eating, after handling the substance, before breaks and at the end of workday.

· **Information about fire - and explosion protection:** Avoid open flames. Avoid all sources of ignition.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store in the original, tightly closed container.

Store in a cool dry well-ventilated place.

Store away from all heat sources, including direct sunlight.

Recommended storage temperature: 5 to 25°C.

· **Information about storage in common storage facility:** Store away from strong oxidizers.

- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** See SECTION 1.2

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:**

Good general ventilation is recommended for handling the product.

- **8.1 Control parameters**

- **Ingredients with limit values those require monitoring at the workplace:**

471-34-1 calcium carbonate

| | |
|--------------|--|
| VME (France) | Long-term value: 10 mg/m ³ |
| NDS (Poland) | Long-term value: 10 mg/m ³ frakcja wdychalna |

- **DNELs**

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

| | | |
|------------|------|---|
| Oral | DNEL | 0.75 mg/kg bw/day (Human) (acute and long-term, systematic effect) |
| Dermal | DNEL | 3.571 mg/kg bw/day (Human) (acute and long-term, systematic effect) |
| | DNEL | 8.33 mg/cm ² (Workers) (long-term and acute, systematic effect) |
| Inhalative | DNEL | 12.25 mg/cm ³ (Workers) (long-term and acute, systematic effect) |

- **PNECs**

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

| | | |
|------|------------------------------|--|
| Oral | PNEC oral | 11000 mg/kg food (general) |
| | PNEC water (fresh water) | 0.006 mg/l (general) |
| | PNEC water (marine water) | 0.0006 mg/l (general) |
| | PNEC sediment (fresh water) | 0.996 mg/kg sed dw (general) |
| | PNEC sediment (marine water) | 0.0996 mg/kg sed dw (general) |
| | PNEC soil | 0.196 mg/kg soil dw (general) |
| | PNEC STP | 10 mg/l (general) |
| | PNEC water (int releases) | 0.0018 mg/l (general) (Intermittent release) |

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

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.

Ensure adequate ventilation at the workplace.

- **Respiratory protection:**

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**



Protective gloves

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 materials on consideration of the penetration times, rates of diffusion and the degradation.

· **Material of gloves**

Rubber gloves or plastic 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/goggles or Face protection.
particularly when work overhead.

· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Viscous

Color: Clear

· **Odour:** Characteristic

· **Odour threshold:** not determined

· **pH-value:** not determined

· **Change in condition**

Melting point/Melting range: not determined

Boiling point/Boiling range: not determined

· **Flash point:** 266°C

· **Flammability (solid, gaseous):** not applicable

· **Ignition temperature:** not determined

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit

· **Decomposition temperature:** not determined

· **Self-ignition:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard

· **Vapour pressure:** not determined

· **Density:** not determined

· **Relative density:** not determined

· **Vapour density:** not determined

· **Evapour rate:** not determined

· **Solubility in / Miscibility with:**

Water: Not miscible or difficult to mix.

· **Partition coefficient: n-octanol/water:** not determined

· **Viscosity:**

Dynamic: not determined

· **Solvent content:**

Organic solvents: not applicable

Solids content: not determined

· **9.2 Other information** No further relevant information available.



SECTION 10: Stability and reactivity

- **10.1 Reactivity** Stable under recommended transport or storage conditions.
- **10.2 Chemical stability** This product is stable under standard conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known under normal transport or storage conditions.
- **10.4 Conditions to avoid** Temperatures over 35°C and Sunlight and UV-rays. See SECTION 7.2
- **10.5 Incompatible materials:** None if can is not damaged.
- **10.6 Hazardous decomposition products:**
None known if used as specified.
In fire toxic fumes may be generated.

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 ≤ 700) | | |
| Oral | LD50 | > 15000 mg/kg bw (rat) (Mortality observed at 15000 mg/kg) |
| | NOAEL | 750 mg/kg bw/day (general) (Studies on fertility (rat)) 15 mg/kg bw/day (rat) (OECD Guideline 453) |
| Dermal | LD50 | 23032 mg/kg (rabbit) (Draize test) |
| | NOAEL | 100 mg/kg bw/day (mouse) (OECD Guideline 411) 1 mg/kg bw/day (rat) (OECD Guideline 453) 300 mg/kg bw/day (rabbit) (The EPA: TSCA test guidelines) |
| Inhalative | LC50/5h | 0 ppm (rat) (Union Carbide (1983a)) |
| 471-34-1 calcium carbonate | | |
| Oral | LD50 | 6450 mg/kg bw (rat) |

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit

· Primary irritant effect:

· Skin corrosion/irritation

| | | |
|---|-----------------|--|
| 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) | | |
| Irritation of skin | Skin irritation | Slightly irrit. (tbt) (OECD Guideline 404) |
| Causes skin irritation. | | |

· Serious eye damage/irritation

| | | |
|---|-------------------|--|
| 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) | | |
| Irritation of eyes | Ocular irritation | Not irritating (rabbit) (OECD Guideline 405 / EU Method B.5) |
| Causes serious eye irritation. | | |

· Respiratory or skin sensitisation

 May cause an allergic skin reaction.

· Repeated dose toxicity

| | | |
|---|-----------------|---|
| 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) | | |
| Oral | NOAEL Rep. Dose | 180 mg/kg bw/d (general) (Prenatal Develop Tox study (rat)) 50 mg/kg bw/day (rat) (OECD Guideline 408) |

- **Mutagenicity** not determined
- **Carcinogenicity** not determined
- **Reproduction toxicity** not determined
- **STOT-single exposure** not determined
- **STOT-repeated exposure** not determined
- **Aspiration hazard** not determined



SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

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

| | |
|-------------------|--|
| EC10/LC10 | 0.3 mg/L (daphnia) (OECD Guideline 211 (21 days)) |
| EC10/72h | 4.2 mg/l (Algae) |
| LC50/96h | 2 mg/l (Oncorhynchus mykiss) (Mean of five valid exposure studies) |
| EC50/48h | 1.8 mg/l (daphnia) (Mean of five valid exposure studies) |
| EC50/72h (static) | 11 mg/l (Scenedesmus subspicatus) (Similar to EPA-660/3-75-009) |

12.2 Persistence and degradability

A part of the components is heavily biodegradable.

12.3 Bioaccumulative potential

Based in the available data of the components, no accumulation in organisms is expected.

12.4 Mobility in soil

No further relevant information available.

Remark: Toxic for fish.

General notes:

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

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

Danger to drinking water if even small quantities leak into the ground.

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.

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit

SECTION 13: Disposal consideration

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Observe all federal, state, community, national or regional/local environmental regulations for waste handling and treatment.

Uncleaned packaging:

Recommendation

Contaminated packaging: contaminated, empty containers must be disposed of as chemical waste.

Disposal must be made according to official regulations.

Cured material may be considered inert and disposed of as builders waste.

SECTION 14: Transport information

14.1 UN-Number

UN3082

ADR, IMDG, IATA

9 III

14.2 UN proper shipping name

ADR UN3082 Environmentally hazardous substance, liquid, n.o.s.

IMDG, IATA

Environmentally hazardous substance, liquid, n.o.s.

14.3 Transport hazard class(es)

ADR, IMDG, IATA 9 Miscellaneous dangerous substances and articles.

Class

9



14.4 Packaging group

| | |
|---|--|
| · ADR, IMDG, IATA | III |
| · 14.5 Environmental hazards: | Symbol (fish and tree) |
| · 14.6 Special precautions for user | See SECTION 6 to 8. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable |
| UN "Model Regulation": | UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III |

SECTION 15: Regulatory information

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

· Measures for Environmental Management of New Chemical Substances (China REACH)

None of the ingredients is listed.

· Inventory - United States - Toxic Substances Control Act (TSCA)

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

CAS: 471-34-1 calcium carbonate

· OECD -List of High Production Volume Chemicals

None of the ingredients is listed.

· Inventory - Canada - Domestic Substances List (DSL)

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

CAS: 471-34-1 calcium carbonate

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit

· Philippines Inventory of Chemicals and Chemical Substances

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

CAS: 471-34-1 calcium carbonate

· Chinese Chemical Inventory of Existing Chemical Substances (IECSC)

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

CAS: 471-34-1 calcium carbonate

· Australian Inventory of Chemical Substances

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

CAS: 471-34-1 calcium carbonate

· Inventory - Korea - Existing and Evaluated Chemical Substances

CAS: 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) KE-24000

CAS: 471-34-1 calcium carbonate KE-04487

· New Zealand Inventory of Chemicals

All ingredients are listed.

· Japan Existing and New Chemical Substances (ENCS)

CAS: 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) 7-1279

CAS: 471-34-1 calcium carbonate 1-548

· Directive 2012/18/EU

· Named dangerous substances - ANNEX I Note of the ingredients is listed.

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

SECTION 16: Other information



GU FIXINGS

Safety Data Sheet

Date of issue: 24.01. 2019

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.

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.

This product must be handled only personnel well informed of safety conditions.

The data given above is based upon products in terms of their safety requirements. It does not guarantee the properties of the products described.

Trade name: Component A: Resin of 2-Component Epoxy Resin Kit

· **Abbreviations and acronyms:**

NOAEL: Non Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

WAF: Water Accommodated Fraction

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

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

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

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

· **Sources**

Data sheet based on the information provided by Manufacturer.

SDS of ingredients provided by suppliers.

The ECHA database on registered substances and the ECHA classification and labelling inventory (<http://www.echa.europa.eu/>)

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

Version 1: 24 / 01 / 2019



First issue according to Regulation 1907/2006 (EC), Article 31

Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit

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

- 1.1 Product identifier
- Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit
- 1.2 Relevant identified uses of the substance or mixture and used advised against
The resin and hardener are packaged in two separate containers.
The hardener is added to the resin and mixed thoroughly until the material is the color evenly. Once mixed, the material can be used until the maximum open time is reached.
- Application of the substance / the mixture: Two part adhesive mortar for bonding or bedding elements.
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Good Use Hardware Co., Ltd.
No. 99-2, Cinan Road, DaShe District,
81546 Kaohsiung City, Taiwan
- Further information obtainable from: info@gooduse.com.tw
- 1.4 Emergency telephone number: Good Use Hardware Co., Ltd. Tel: 886-7-3535170

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
 -  GHS07
 - 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 3 H412 Harmful to aquatic life with long lasting effects.
 -  GHS05
 - Skin Corr. 1C H314: Causes severe skin burns and eye damage.
 - Eye Damage 1 H318: Causes serious eye damage.

- 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 GHS05

- Signal word Warning
- Hazard-determining components of labelling:
calcium carbonate

benzyl alcohol

Hazard statements

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

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>.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P310 Immediately call a POISON CENTER/doctor

P312 Call a POISON CENTER/doctor if you feel unwell.

Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit

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.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor

P332+P313 If skin irritation occurs: Get medical advice/attention.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

 · **Other hazards:** Not applicable.

 · **PBT & vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients
3.2 Chemical characterisation: Mixtures

 · **Description:** Mixture of substances listed below with non-hazardous additions.

| Composition/information on ingredients: | | RANGE |
|--|--|--------------|
| CAS:100-51-6 EINECS: 202-859-9 | benzyl alcohol | 10 - 25% |
| CAS:135108-88-2 | Formaldehyde polymer with benzenamine hydrogenated GHS/CLP: Skin Corr. 1C:H314; Skin Sens. 1:H317 | 5 - 15% |
| CAS:9046-10-0 EINECS: 817-485-7 | Polypropylene glycol bis (2-aminoproylether) GHS/CLP: Skin Corr. 1C:H314; Eye Damage 1: H318 | 15 - 20% |
| CAS: 471-34-1 EINECS: 207-439-9 | calcium carbonate substance with a Community workplace exposure limit | 30 - 40% |
| CAS:112-24-3 EINECS: 203-950-6 | Triethylenetetramine | 5 - 15% |



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:** Take off all contaminated clothing and shoes.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly. Do not use any solvent.
If symptoms develop, seek medical attention.
- **After eye contact:**
Wash immediately and abundantly with running water for at least 15 minutes, keeping eyes open.
In case the eyes are injured, or in case there is irritation, seek for medical advice/treatment.
- **After ingestion:**
Do not induce vomiting. Slowly dilute with 1-2 glasses of water and seek medical attention.
- **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**
Immediate/special treatment: Show this safety data sheet to the doctor.

Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
Dry chemical powder, carbon dioxide, water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Do not use direct water jet.
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Contact with combustible material may cause fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**
In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Wear protective clothing, rubber or plastic coated gloves, and eye/face protection. Avoid breathing vapours.
Avoid breathing vapours.
Keep away from ignition sources.
- **6.2 Environmental precautions:**
Do not allow product to enter sewers/surface or ground water or 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, acidic binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**



See SECTION 7 + 8 + 13 of SDS.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Avoid contact with skin and eyes.
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke. Avoid open flames.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in the original, tightly closed container.
Store in a cool dry well-ventilated place.
Store away from all heat sources, including direct sunlight.
Recommended storage temperature: 10 to 30°C.
- **Information about storage in common storage facility:** Store away from strong oxidizers.
- **Further information about storage conditions:**

Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit

Keep container tightly sealed.

Protect from heat and direct sunlight.

- **7.3 Specific end use(s)** See SECTION 1.2

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:**
Good general ventilation is recommended for handling the product.
- **8.1 Control parameters**

Ingredients with limit values those require monitoring at the workplace:

| | |
|-----------------------------------|--|
| 471-34-1 calcium carbonate | |
| VME (France) | Long-term value: 10 mg/m ³ |
| NDS (Poland) | Long-term value: 10 mg/m ³ frakcja wdychalna |
| CAS:100-51-6 benzyl alcohol | |
| HTP | Long-term value: 45 mg/m ³ , 10 ppm |
| CAS:112-24-3 Triethylenetetramine | |
| | Dupont 8 hr TWA 1ppm |
| | Dupont 12 hr TWA 0.5ppm |

- **Additional information:**
The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and a the end of work.
- **Respiratory protection:**
Not necessary if room is well-ventilated.
- **Protection of hands:**


Protective gloves

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 materials on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves

Rubber gloves or plastic 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.

Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit
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/goggles or Face protection.

Particularly when work overhead.

Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties
General Information
Appearance:

Form: Viscous

Color: Yellow

Odour: Characteristic

Odour threshold: not determined

pH-value: not determined

Change in condition

Melting point/Melting range: not determined

Boiling point/Boiling range: not determined

Flash point: not applicable

Flammability (solid, gaseous): not applicable

Ignition temperature: not determined

Decomposition temperature: not determined

Self-ignition: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Vapour pressure: not applicable

Density: not determined

Relative density: not determined

Vapour density: not determined

Evapour rate: not determined

Solubility in / Miscibility with:

Water: Not miscible or difficult to mix.

Partition coefficient: n-octanol/water: not determined

Viscosity:

Dynamic: not determined



- Solvent content:
 - Organic solvents: not applicable
 - Solids content:
- 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity No dangerous reactions known under recommended transport or storage conditions.
- 10.2 Chemical stability This product is stable under standard conditions.
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid See SECTION 7.2
Temperature over 35°C

Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit

- Sunlight and UV-rays
- 10.5 Incompatible materials: None if can is not damaged.
- 10.6 Hazardous decomposition products:
None known if used as specified.
In fire toxic fumes may be generated.

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:

| | | |
|---------------------------------------|------|---------------------|
| 100-51-6 benzyl alcohol | | |
| Oral | LD50 | Rat 1620 mg/kg |
| 471-34-1 calcium carbonate | | |
| Oral | LD50 | 6450 mg/kg bw (rat) |
| 9046-10-0 Diaminopolypropylene glycol | | |
| Oral | LD50 | 2885 mg/kg (rat) |

- Primary irritant effect:
- Skin corrosion/irritation Causes skin irritation.
- Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitization May cause an allergic skin reaction.
- Mutagenicity not determined
- Carcinogenicity not determined
- Reproduction toxicity not determined
- STOT-single exposure not determined
- STOT-repeated exposure not determined
- Aspiration hazard not determined

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: Expected to be harmful to aquatic organisms.
- 12.2 Persistence and degradability A part of the components is heavily biodegradable.
- 12.3 Bioaccumulative potential
Based on the available data of the components, no accumulation in organisms is expected.
- 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** Avoid release to the environment.

| |
|---|
| Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit |
|---|

SECTION 13: Disposal consideration

- **13.1 Waste treatment methods**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation**
 Disposal must be made according to official regulations.

SECTION 14: Transport information

| | | | |
|--|--|---|---|
| · 14.1 UN-Number | | | |
| · ADR, ADN, IMDG, IATA | UN3082 | | |
| · 14.2 UN proper shipping name | | | |
| · ADR | UN3082 Environmentally hazardous substance, liquid, n.o.s. | | |
| · ADN, IMDG, IATA | Environmentally hazardous substance, liquid, n.o.s. | | |
| · 14.3 Transport hazard class(es) | | | |
| · ADR, IMDG, IATA | 9 Miscellaneous dangerous substances and articles. |  |  |
| · Class | 9 | | |
| · 14.4 Packaging group | | | |
| · ADR, IMDG, IATA | III | | |
| · 14.5 Environmental hazards: | Symbol (fish and tree) | | |
| · 14.6 Special precautions for user | See SECTION 6 to 8. | | |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable | | |
| · UN "Model Regulation": | UN3082 Environmentally hazardous substance, liquid, n.o.s. 9 III | | |

SECTION 15: Regulatory information

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

| |
|---|
| Measures for Environmental Management of New Chemical Substances (China REACH) |
|---|

None of the ingredients is listed.

| |
|--|
| Inventory - United States - Toxic Substances Control Act (TSCA) |
|--|

| | |
|---------------|----------------------|
| CAS: 471-34-1 | calcium carbonate |
| CAS: 100-51-6 | Benzyl Alcohol |
| CAS: 112-24-3 | Triethylenetetramine |

| |
|---|
| OECD -List of High Production Volume Chemicals |
|---|

| | |
|----------------|--|
| CAS: 471-34-1 | calcium carbonate |
| CAS: 100-51-6 | Benzyl Alcohol |
| CAS: 112-24-3 | Triethylenetetramine |
| CAS: 9046-10-0 | Polypropylene glycol bis (2-aminoproylether) |

| | |
|--|----------------------|
| · Inventory - Canada - Domestic Substances List (DSL) | |
| CAS: 471-34-1 | calcium carbonate |
| CAS: 100-51-6 | Benzyl Alcohol |
| CAS: 112-24-3 | Triethylenetetramine |

| | |
|---|--|
| · Philippines Inventory of Chemicals and Chemical Substances (PICCS) | |
| CAS: 471-34-1 | calcium carbonate |
| CAS: 100-51-6 | Benzyl Alcohol |
| CAS: 112-24-3 | Triethylenetetramine |
| CAS: 9046-10-0 | Polypropylene glycol bis (2-aminoproylether) |
| CAS: 135108-88-2 | Formaldehyde polymer with benzenamine hydrogenated |

| | |
|---|--|
| · Chinese Chemical Inventory of Existing Chemical Substances (IECSC) | |
| CAS: 471-34-1 | calcium carbonate |
| CAS: 100-51-6 | Benzyl Alcohol |
| CAS: 9046-10-0 | Polypropylene glycol bis (2-aminoproylether) |
| CAS: 135108-88-2 | Formaldehyde polymer with benzenamine hydrogenated |

| | |
|--|--|
| · Australian Inventory of Chemical Substances | |
| CAS: 100-51-6 | Benzyl Alcohol |
| CAS: 471-34-1 | calcium carbonate |
| CAS: 112-24-3 | Triethylenetetramine |
| CAS: 135108-88-2 | Formaldehyde polymer with benzenamine hydrogenated |
| CAS: 9046-10-0 | Polypropylene glycol bis (2-aminoproylether) |

| | | |
|---|--|----------|
| · Inventory - Korea - Existing and Evaluated Chemical Substances | | |
| CAS: 100-51-6 | Benzyl Alcohol | KE-02570 |
| CAS: 471-34-1 | calcium carbonate | KE-04487 |
| CAS: 112-24-3 | Triethylenetetramine | KE-02911 |
| CAS: 135108-88-2 | Formaldehyde polymer with benzenamine hydrogenated | KE-17094 |
| CAS: 9046-10-0 | Polypropylene glycol bis (2-aminoproylether) | KE-01457 |

| | |
|---|--|
| · New Zealand Inventory of Chemicals | |
| All ingredients are listed. | |

| | | |
|--|--|---------|
| · Japan Existing and New Chemical Substances (ENCS) | | |
| CAS: 100-51-6 | Benzyl Alcohol | 3-1011 |
| CAS: 471-34-1 | calcium carbonate | 1-122 |
| CAS: 112-24-3 | Triethylenetetramine | 2-163 |
| CAS: 135108-88-2 | Formaldehyde polymer with benzenamine hydrogenated | 12-198 |
| CAS: 9046-10-0 | Polypropylene glycol bis (2-aminoproylether) | 10-1723 |

· Directive 2012/18/EU

· **Named dangerous substances - ANNEX I** Note of the ingredients is listed.

· **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.

Trade name: Component B: Hardener of 2-Component Epoxy Resin Kit

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.

The data given above is based upon products in terms of their safety requirements. It does not guarantee the properties of the products described.

This product must be handled only personnel well informed of safety conditions.

Abbreviations and acronyms:

WAF: Water Accommodated Fraction

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

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

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

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

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

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

Sources

Data sheet based on the information provided by Manufacturer.

SDS of ingredients provided by suppliers.

The ECHA database on registered substances and the ECHA classification and labelling inventory (<http://www.echa.europa.eu/>)

Data compared to the previous version altered.

Version 1: 24 / 01 / 2019

First issue according to Regulation 1907/2006 (EC), Article 31