

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

Printing date 10.11.2020

Revision: 04.11.2020

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

- **1.1 Product identifier**
- **Trade name:** HADALAN ESD-G 12E, Komponente A
- **UFI:** APW1-X0G6-300F-JG6J
- **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** 2-comp. Epoxy resin as ESD primer, comp. A
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Sievert Baustoffe GmbH & Co. KG
Mühlenschweg 6
D-49090 Osnabrück
Tel.: +49 2363 5663-0
- **Further information obtainable from:**
Abteilung: Produktsicherheit
Tel. +49 2363 5663-0
info-hahne@sievert.de
- **1.4 Emergency telephone number:**
Gif tinformationszentrum Nord (GIZ Nord) Universität Göttingen,
Tel.: 0551-19240

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.
Eye Irrit. 2 H319 Causes serious eye irritation.
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**



GHS07



GHS09

- **Signal word** Warning
- **Hazard-determining components of labelling:**
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)
formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
oxirane, mono[(C12-14-alkyloxy)methyl] derivs

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.11.2020

Revision: 04.11.2020

Trade name: HADALAN ESD-G 12E, Komponente A

(Contd. of page 1)

· **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 dust/fume/gas/mist/vapours/spray.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
 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.

· **Additional information:**

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 Chemical characterisation: Mixtures**

· **Description:** Epoxy resin

· **Dangerous components:**

CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700) ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25-50%
CAS: 9003-36-5	formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	10-25%
CAS: 68609-97-2 EINECS: 271-846-8	oxirane, mono[(C12-14-alkyloxy)methyl] derivs ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	10-25%
CAS: 78-93-3 EINECS: 201-159-0	butanone ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	<1.0%

· **Additional information:**

For the wording of the listed hazard phrases refer to section 16.
 GISCODE: RE 1 (resin + hardener)

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:**

Immediately wash with water and soap and rinse thoroughly.
 Immediately rinse with water.

· **After eye contact:**

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

· **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

(Contd. on page 3)

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

Printing date 10.11.2020

Revision: 04.11.2020

Trade name: HADALAN ESD-G 12E, Komponente A

(Contd. of page 2)

- **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:** Foam (alcohol-resistant), carbon dioxide, powder, spray mist.
- **For safety reasons unsuitable extinguishing agents:** Full water jet.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** In case of fire: Use breathing protection with an independent fresh air supply.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Keep people away, ensure adequate ventilation.
- **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.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
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 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Store in a cool, dry place in tightly closed containers.
- **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 frost-free.
- **Information about storage in one common storage facility:** Store away from food, beverages and feed.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class:** VCI: 10
- **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.

78-93-3 butanone (<1.0%)

WEL	Long-term value: 600 mg/m ³ , 200 ppm
	Sk, BMGV

(Contd. on page 4)

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

Printing date 10.11.2020

Revision: 04.11.2020

Trade name: **HADALAN ESD-G 12E, Komponente A**

(Contd. of page 3)

- **Additional information:** The lists valid during the making were used as basis.
- **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.
- **Respiratory protection:**
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.
Not required with good ventilation.
- **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 material on consideration of the penetration times, rates of diffusion and the degradation
Use protective gloves. Wear nitrile gloves with a layer thickness of at least 0.4 mm.
(Penetration time > = 480 minutes - see also www.gisbau.de)
- **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 long-sleeved protective clothing.

SECTION 9: Physical and chemical properties

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

Form:	Fluid
Colour:	Various colours
Odour:	weak, 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:** >60 °C
- **Flammability (solid, gas):** Not applicable.
- **Decomposition temperature:** Not determined.
- **Auto-ignition temperature:** Product is not selfigniting.
- **Explosive properties:** Product does not present an explosion hazard.
- **Explosion limits:**

Lower:	Not determined.
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(Contd. on page 5)

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

Printing date 10.11.2020

Revision: 04.11.2020

Trade name: **HADALAN ESD-G 12E, Komponente A**

(Contd. of page 4)

Upper:	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.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	1.0 %
· 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 according to specifications.
- **10.3 Possibility of hazardous reactions**
Exothermic reactions with amines. Process quickly after adding the hardener, as high temperatures can be reached during hardening.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Keep away from strongly acidic and alkaline materials as well as oxidizing agents in order to avoid exothermic reactions.
- **10.6 Hazardous decomposition products:**
At high temperatures, carbon dioxide, carbon monoxide, smoke and nitrogen oxides can be produced.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
LC50 (inhalation) of the mixture: Not classified (No relevant ingredient)
LD50 (Oral) of the mixture: Not classified (No relevant ingredient)
LD50 (Dermal) of the mixture: Not classified (No relevant ingredient)
- **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	>2,000 mg/kg (rat)
Dermal	LD50	mg/kg (rab)
		>1,200 mg/kg (rat)
78-93-3 butanone		
Oral	LD50	3,300 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rbt)
9003-36-5 formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol		
Oral	LD50	mg/kg (rab)

(Contd. on page 6)

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

Printing date 10.11.2020

Revision: 04.11.2020

Trade name: **HADALAN ESD-G 12E, Komponente A**

(Contd. of page 5)

Dermal	LD50	>1,000 mg/kg (rat)
		>2,000 mg/kg (rat)
68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs		
Oral	LD50	mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rat)

- **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.
- **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**
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
LC50 - fish 2.54 mg / l / 96h (leuciscus idus)
EC50 - algae / aquatic plants 1.8 mg / l / 72h (algae)
EC10 crustaceans 2.55 mg / l / 48h (daphnia)
Oxirane, mono [(C12-14-alkyloxy) methyl] derivatives
LC50 - fish > 10 mg / l / 96h (leuciscus idus)
EC50 - crustaceans > 10 mg / l / 48h (Dap)
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability**
Reaction product: bisphenol-A-epichlorohydrin resins with average molecular weight > 700
Water solubility 0.1-100 mg / l
NOT rapidly degradable
Butanone
Water solubility > 10000 mg / l
Quickly degradable
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
NOT rapidly degradable
Oxirane, mono [(C12-14-alkyloxy) methyl] derivatives
Quickly degradable
- **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
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.

(Contd. on page 7)

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

Printing date 10.11.2020

Revision: 04.11.2020

Trade name: **HADALAN ESD-G 12E, Komponente A**

(Contd. of page 6)

- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
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- **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), formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol), MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol)

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

- **ADR, 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

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 10.11.2020

Revision: 04.11.2020

Trade name: **HADALAN ESD-G 12E, Komponente A**

(Contd. of page 7)

· Stowage Category	A
· 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	-
· 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 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT = 700), FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROPANE AND PHENOL), 9, III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category E2** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
During activities involving exposure to uncured epoxy resins and contact via the skin or the Regular medical check-ups are to be arranged for the respiratory tract.
- **Substances of very high concern (SVHC) according to REACH, Article 57**
Das Produkt unterliegt der RL 2004/42/EG.EU-Grenzwert dieses Produktes ist im gebrauchsfertigen Zustand: Kat A/j max. 500 g/l (2010). Das Produkt enthält im gebrauchsfertigen Zustand: max. 1 g/l VOC.
- **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**
H225 Highly flammable liquid and vapour.
H312 Harmful in contact with skin.
H315 Causes skin irritation.

(Contd. on page 9)

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

Printing date 10.11.2020

Revision: 04.11.2020

Trade name: HADALAN ESD-G 12E, Komponente A

(Contd. of page 8)

*H317 May cause an allergic skin reaction.**H319 Causes serious eye irritation.**H336 May cause drowsiness or dizziness.**H411 Toxic to aquatic life with long lasting effects.***Abbreviations and acronyms:***RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)**IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)**ICAO: International Civil Aviation Organisation**ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)**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**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Flam. Liq. 2: Flammable liquids – Category 2**Acute Tox. 4: Acute toxicity - dermal – Category 4**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**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

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