

**Safety data sheet**  
**according SS 586 : Part 3**

Date of issue: 31.08.2025

Version number 1

Revision: 21.08.2025

**1 Identification**

· **Product identifier**

· **Trade name:** **1-EP70-B**

· **Relevant identified uses of the substance or mixture and uses advised against**

· **Product category** PC1 Adhesives, sealants

· **Application of the substance / the mixture** Adhesives

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

HOTTINGER BRUEL & KJAER UK LTD  
Advanced Manufacturing Park Technology Centre  
Brunel Way, Catcliffe, Rotherham  
South Yorkshire, S60 5WG  
United Kingdom  
Phone: +44 (0) 1145 512230  
Email: info@uk.hbm.com

· **Informing department:**

Tel. +49(0)6131 19240  
EMail support-esa@hbkworld.com

· **Emergency telephone number:**

Gift-Informationszentrum Nord, Göttingen  
Poison Information Center, Göttingen  
Tel.: +49 (0)551 19240  
(German and English only)

United Kingdom:

National Poisons Information Service  
Emergency number: +44 844 892 0111

Poisons Information Centre of Ireland:

+353 1 837 9964 for medical professionals  
+353 1 809 2166 for public inquiries  
CHEMTREC: +44 20 3807 3798 (24h emergency call).  
Outside continental USA please call CHEMTREC at +1-703-527-3887 (R-calls are accepted).

**2 Hazards identification**

· **Classification of the substance or mixture**



GHS05 corrosion

Eye Dam. 1      H318 Causes serious eye damage.



GHS09 environment

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

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GHS07

Skin Irrit. 2      H315 Causes skin irritation.  
 Skin Sens. 1      H317 May cause an allergic skin reaction.

· **Label elements**

· **GHS label elements**

The product is classified and labelled according to the Globally Harmonised System (GHS).

· **Hazard pictograms**



GHS05    GHS07    GHS09

· **Signal word** Danger

· **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  
 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

· **Hazard statements**

H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 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 / eye protection / face protection.  
 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.  
 P332+P313      If skin irritation occurs: Get medical advice/attention.

· **Additional information:**

Please refer to further labelling elements in section 15 of this safety data sheet, if applicable.

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.  
 · **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterisation: Mixtures**

· **Description:**

Mixture consisting of the following components.  
 Mixture of the substances listed below including additives not requiring identification.

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· <b>Dangerous components:</b>		
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$ ) ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 Specific concentration limits: Eye Irrit. 2; H319: C $\geq$ 5 % Skin Irrit. 2; H315: C $\geq$ 5 %	50 - 100%
2425-79-8	1,4-bis(2,3-epoxypropoxy)butane ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1A, H317	10 - 25%
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	25%

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

### 4 First-aid measures

· **Description of first aid measures**

· **General information**

Personal protection for the First Aider.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation**

Supply fresh air and call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

· **After skin contact**

Instantly wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· **After eye contact**

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

Remove contact lenses if possible.

· **After swallowing**

Rinse out mouth and then drink plenty of water.

Avoid vomiting.

· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents**

Use fire fighting measures that suit the environment.

Alcohol-resistant foam, extinguishing powder or carbon dioxide. Fight larger fire with water spray.

· **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

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

Inhalation of combustion gases may cause serious health hazards.

During incomplete combustion carbon monoxide can be formed.

· **Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus.

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- **Additional information** Remove goods in stock from incendiary zone, if possible.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
The usual precautionary measures should be adhered to general rules for handling chemicals.
- **For non-emergency personnel** Avoid contact with the product.
- **For emergency responders** Put on suitable personal protective equipment.
- **Environmental precautions:**  
Do not allow to enter drainage system, ground/soil and water bodies.  
Inform respective authorities in case product reaches water or sewage system.  
Dilute with much water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).  
Dispose of the material collected according to regulations.  
Ensure adequate ventilation.
- **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 information on disposal.

### 7 Handling and storage

- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Handling**  
Do not eat, drink or smoke while working.  
Avoid contact with the eyes and skin.  
Wash hands during breaks and at the end of the work.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**  
Keep container tightly closed and store upright to prevent any spill of product.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Control parameters**
- **Components 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 that were valid during the compilation were used as basis.

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- **Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

*Keep away from foodstuffs, beverages and food.*

*Take off all contaminated clothing immediately.*

*Wash hands during breaks and at the end of the work.*

*Avoid contact with the eyes and skin.*

*Wash contaminated clothing before re-use.*

- **Breathing equipment:**

*In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.*

- **Protection of hands:**



Protective gloves.

*Only use chemical-protective gloves with CE-labelling of category III (EN 374).*

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

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

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

- **Material of gloves**

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

*Butyl rubber, BR*

*Nitrile rubber, NBR*

- **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 goggles according to EN 166.



Face protection

- **Body protection:**



Protective work clothing.

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### 9 Physical and chemical properties

#### · Information on basic physical and chemical properties

##### · General Information

· <b>Physical state</b>	Liquid
· <b>Colour:</b>	Yellowish
· <b>Odour:</b>	Recognisable
· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Not determined
· <b>Initial boiling point and boiling range:</b>	> 260 °C
· <b>Flash point:</b>	112 °C
· <b>Evaporation rate</b>	Not determined.
· <b>Inflammability (solid, gaseous)</b>	Not applicable.
· <b>Critical values for explosion:</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	82 hPa
· <b>Vapour density</b>	Not determined.
· <b>Density at 20 °C</b>	0.54 - 2.475 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
· <b>Water:</b>	Slightly soluble
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Auto-ignition temperature:</b>	> 400 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>SADT</b>	
· <b>Viscosity:</b>	
· <b>kinematic:</b>	Not determined.
· <b>dynamic:</b>	Not determined.
· <b>Particle characteristics</b>	No further details.

##### · Other information

· <b>Appearance:</b>	
· <b>Form:</b>	Fluid
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Self-inflammability:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive.
· <b>VOC EU</b>	
· <b>Solids content:</b>	0.0 %

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

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- **Hazardous decomposition products:**  
None in case of intended use and storage in compliance with instructions.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

- **LD/LC50 values that are relevant for classification:**

#### ATE (Acute Toxicity Estimates)

Dermal	LD50	> 8,600 - 21,500 mg/kg (Rat)
Inhalative	LC50	44 - 110 mg/l/4h

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

Oral	LD50	> 2,000 mg/kg (Rat) (OECD 420) 19,800 mg/kg (rabbit)
Dermal	LD50	> 23,000 mg/kg (rabbit)

#### 2425-79-8 1,4-bis(2,3-epoxypropoxy)butane

Oral	LD50	1,118 mg/kg (Rat) (OECD 401)
Dermal	LD50	> 2,150 mg/kg (Rat) (OECD 402)

#### 9003-36-5 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Oral	LD50	> 5,000 mg/kg (Rat) (OECD 401)
Dermal	LD50	> 2,000 mg/kg (Rat) (OECD 402)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritant effect.
- **Respiratory or skin sensitisation** Sensitization possible by skin contact.
- **Additional toxicological information:**

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

- **Repeated dose toxicity**

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

Oral	NOAEL (90d)	50 mg/kg bw/day (Rat) (OECD 408)
Dermal	NOAEL (90d)	100 mg/kg bw/day (mouse) (OECD 411)

#### 9003-36-5 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol

Oral	NOAEL (90d)	250 mg/kg bw/day (Rat) (OECD 408)
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### 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

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

EC50 (static) 2.7 mg/l/48h (*Daphnia magna*) (EPA-660/3-75-009)

LC50 220 mg/l/96h (*Algae*)

1.75 mg/l/96h (*Oncorhynchus mykiss*) (OECD 203)

**2425-79-8 1,4-bis(2,3-epoxypropoxy)butane**

EC50 75 mg/l/24h (*Daphnia magna*) (OECD 202)

LC50 24 mg/l/96h (*Danio rerio*) (OECD 203)

**9003-36-5 Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol**

EC50 (static) > 1,000 mg/l/48h (*Daphnia magna*) (OECD 202)

LC50 > 1,000 mg/l/96h (*Oncorhynchus mykiss*) (OECD 203)

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

- **Other information:** There are no data available about the preparation.

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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

- **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 bodies or sewage system.

Danger to drinking water if even small quantities leak into soil.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

### 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

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

- **Uncleaned packagings:**

- **Recommendation:**

Dispose of packaging according to regulations on the disposal of packagings.

Non contaminated packagings can be used for recycling.

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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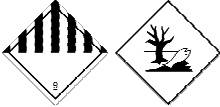
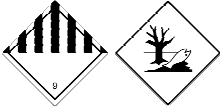
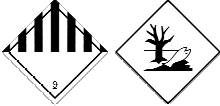
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### 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADR/RID, IMDG, IATA</b></li> </ul>	UN3082
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADR/RID</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN, EPOXY RESIN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN, EPOXY RESIN), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN, EPOXY RESIN)
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>ADR/RID</b></li> </ul>	9 (M6) Miscellaneous dangerous substances and articles. 9
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	9 (M6) Miscellaneous dangerous substances and articles. 9
<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	9 Miscellaneous dangerous substances and articles. 9
<ul style="list-style-type: none"> <li>· <b>IATA</b></li> </ul>	
	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	9 Miscellaneous dangerous substances and articles. Not Restricted. 9
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>ADR/RID, IMDG, IATA</b></li> </ul>	III
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (ADR/RID):</b></li> <li>· <b>Special marking (IATA):</b></li> </ul>	Product contains environmentally hazardous substances: EPOXY RESIN Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>	Not applicable.

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· **Transport/Additional information:**

· **ADR/RID**

· **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

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles.

· **Kemler Number:**

90

· **EMS Number:**

F-A,S-F

· **Stowage Category**

A

· **UN "Model Regulation":**

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN, EPOXY RESIN), 9, III

### 15 Regulatory information

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

· **Poisons Act - Schedule 1**

None of the ingredients is listed.

· **Poisons Act - Schedule 2, Group II**

None of the ingredients is listed.

· **Health Products Act - First Schedule - Psychotropic Substances**

None of the ingredients is listed.

· **Chemical safety assessment**

· **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

· **National regulations**

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

· **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients is contained.

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

### 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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- **Relevant phrases**

H312 Harmful in contact with skin.  
 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.  
 H411 Toxic to aquatic life with long lasting effects.

- **Department issuing data specification sheet:**

 **DEKRA** This Safety Data Sheet has been drawn up in cooperation with:  
 DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,  
 phone: (+49) 511 42079 - 0, reach@dekra.com.

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- **Kit-Components:**

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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  
 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  
 Acute Tox. 4: Acute toxicity – Category 4  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
 Skin Sens. 1: Skin sensitisation – Category 1  
 Skin Sens. 1A: Skin sensitisation – Category 1A  
 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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