



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 28.04.2015

Version number 1



Revision: 28.04.2015

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

- **Product identifier**
- **Trade name: GC6B / GC4**
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Adhesives
- **Details of the supplier of the safety data sheet**
- **Supplier:**
Alfa Laval Lund AB
Box 74
SE-221 00 Lund
Sweden
+46 46 36 65 00
info.se@alfalaval.com
- **Further information obtainable from:**
For further questions regarding the safety data sheet, please contact your local Alfa Laval Sales Company which you find at www.alfalaval.com or in section 16 "Other Information" in the end of the safety data sheet
- **Emergency telephone number:**
In the UK: For immediate, life-threatening emergencies, call 999
For health advice and information (24h) dial 111 (NHS direct).

In Europe: Call 112 and ask for poison information.

2 Hazards identification

- **Classification of the substance or mixture**
Self-heat. 1 H251 Self-heating: may catch fire.
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.
- **Label elements**
- **GHS label elements**
The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**

GHS02 GHS07
- **Signal word** Danger
- **Hazard-determining components of labelling:**
reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
- **Hazard statements**
Self-heating: may catch fire.
Causes skin irritation.

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Causes serious eye irritation.

May cause an allergic skin reaction.

- **Precautionary statements**

Wear protective gloves.

Avoid release to the environment.

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

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

Store bulk masses greater than 1 kg at temperatures not exceeding 5°C.

Maintain air gap between stacks/pallets.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterisation: Mixtures**

- **Description:**

	Non-volatile amide (hydrazide)	25-50%
112945-52-5	Amorphous silica, crystalline free, synthetic	2.5-10%

- **Dangerous components:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)	50-100%
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- **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **Description of first aid measures**

- **General information:**

Immediately remove any clothing soiled by the product.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

- **After inhalation:**

Supply fresh air.

Seek medical treatment if symptoms persists.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- **After eye contact:**

IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If symptoms persist consult doctor.

- **After swallowing:**

Rinse the mouth with water.

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If symptoms persist consult doctor.

- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** Refer to section 11.1
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Water spray
Foam
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Not applicable.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Hydrogen chloride (HCl)
Carbon monoxide and carbon dioxide
Aldehyde
- **Advice for firefighters**
- **Protective equipment:**
Wear fully protective suit.
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Formation of toxic gases is possible during heating or in case of fire.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Absorb liquid components with liquid-binding material.
Keep away from ignition sources.
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
In case of seepage into the ground inform responsible authorities.
Send for recovery or disposal in suitable receptacles.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **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.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
 - Do not breathe vapour.
 - Avoid contact with skin and eyes.
 - Handle and open container with care.
 - Avoid release to the environment.
 - This material and its container must be disposed of in a safe way.
 - See Section 8 for information on personal protection equipment.
- **Information about fire - and explosion protection:** Substance/product is self ignitable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Keep away from heat and direct sunlight.
 - Store in a cool location.
- **Information about storage in one common storage facility:** Store away from amines
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)**
 - Adhesives
 - Only for trade users / technical specialists

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
 - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **DNELs**
 - 25068-38-6 Epoxy resin system, Bisphenol-A and epichlorhydrin, reaction product, MW<700: Hazard via inhalation route: Long time exposure: 12.25 mg/m³; Acute/short term exposure: 12.25 mg/m³. Repeated dose toxicity. Overall assessment factor: 12. Dose descriptor starting point: NOAEC.
- **PNECs**
 - 25068-38-6 Epoxy resin system, Bisphenol-A and epichlorhydrin, reaction product, MW<700: Aqua (freshwater): 0.006 mg/L, Assessment factor: 50, Extrapolation method: Assessment factor.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Ensure that washing facilities are available at the work place.
 - 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.
 - Use only in well-ventilated areas.

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In case of insufficient ventilation, wear suitable respiratory equipment.

- **Respiratory protection:**

Not necessary if room is well-ventilated.

Filter P2

Filter P3

- **Protection of hands:**



Protective gloves

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**

polymer laminate

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

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Highly viscous

Colour: Light beige

- **Odour:** Characteristic

- **Odour threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

- **Flash point:** > 107 °C

- **Flammability (solid, gaseous):** May cause fire.

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· Ignition temperature:	
· Decomposition temperature:	Not determined.
· Self-igniting:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not applicable.
· Density at 20 °C:	1.24 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Slightly soluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic at 26 °C:	30-80 Pas (Brookfield)
Kinematic:	Not applicable. Not determined.
· Solvent content:	
Organic solvents:	0.0 %
· Other information	Lowest storage temperature: -18 °C Highest storage temperature: 4 °C

10 Stability and reactivity

- **Reactivity** No further data; see item 7.
- **Chemical stability**
Stable under normal temperature conditions and under recommended usage and storage.
- **Thermal decomposition / conditions to be avoided:** Exothermic thermal decomposition.
- **Possibility of hazardous reactions**
Exothermic polymerisation.
130 °C
- **Conditions to avoid**
Keep away from heat.
Keep away from sources of ignition - No smoking.
Avoid hardening of large quantities in order to prevent premature reaction (exotherm) with high heat and smoke.
- **Incompatible materials:** Reacts with amines.
- **Hazardous decomposition products:**
Nitrogen oxides

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Carbon monoxide and carbon dioxide
Aldehyde
Hydrogen chloride (HCl)
No further data; see item 7.

11 Toxicological information

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

Irritation of skin	Skin corrosion/Irritation	4 h (rabbit) (OECD Guideline 404)
Irritation of eyes	Serious Eye Damage/Irritation	- (rabbit) (OECD Guideline 405)

Information on toxicological effects**Acute toxicity****LD/LC50 values relevant for classification:**

25068-38-6 Epoxy resin system, Bisphenol-A and epichlorhydrin, reaction product, MW < 700:

LD50: 13600 mg/kg, Oral Rat.

LD50: >1200 mg/kg, Dermal Rat.

Primary irritant effect:**Skin corrosion/irritation** Irritant to skin and mucous membranes.**Serious eye damage/irritation** Irritating effect.**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

Sensitisation Contains epoxy constituents. May produce an allergic reaction.**Repeated dose toxicity** Sensitising effect by skin contact is possible by prolonged exposure.

12 Ecological information

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

EC50 | 220 mg/L (Algae)

Aquatic toxicity:

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

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

EC50 | 1.1-3.6 mg/L (daphnia)

LC50 (96h) | 1.75 mg/L (Fish) (OECD Guideline 203)

Persistence and degradability No further relevant information available.

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- **Behaviour in environmental systems:**

- **Bioaccumulative potential**

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

Bioaccumulation factor	<42 (No information available)
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- **Mobility in soil** Contact your supplier for more information.

- **Ecotoxicological effects:**

- **Remark:**

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

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Hand over to hazardous waste disposers.

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
20 00 00	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01 00	separately collected fractions (except 15 01)
20 01 27*	paint, inks, adhesives and resins containing dangerous substances

- **Uncleaned packaging:**

- **Recommendation:**

Disposal must be made according to official regulations.

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Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADG, IMDG, IATA 	UN3088
<ul style="list-style-type: none"> · UN proper shipping name · ADG · IMDG · IATA 	3088 SELF-HEATING SOLID, ORGANIC, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), ENVIRONMENTALLY HAZARDOUS SELF-HEATING SOLID, ORGANIC, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), MARINE POLLUTANT SELF-HEATING SOLID, ORGANIC, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700))
<ul style="list-style-type: none"> · Transport hazard class(es) · ADG, IMDG 	4.2 Substances liable to spontaneous combustion. 4.2
	
<ul style="list-style-type: none"> · Class · Label 	4.2 Substances liable to spontaneous combustion. 4.2
<ul style="list-style-type: none"> · IATA 	
	
<ul style="list-style-type: none"> · Class · Label 	4.2 Substances liable to spontaneous combustion. 4.2
<ul style="list-style-type: none"> · Packing group · ADG, IMDG, IATA 	II
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADG): 	Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) Yes Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · Special precautions for user 	Warning: Substances liable to spontaneous combustion.

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· Danger code (Kemler):	40
· EMS Number:	F-A,S-J
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADG	
· Limited quantities (LQ)	0
· Transport category	2
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN3088, SELF-HEATING SOLID, ORGANIC, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)), ENVIRONMENTALLY HAZARDOUS, 4.2, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
EU Regulation (EC) no.1907/2006 (REACH)
EU regulation (EC) no 1272/2008 (CLP)
EC DIRECTIVE 2008/98/EC (waste)

- **Australian Inventory of Chemical Substances**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
112945-52-5	Amorphous silica, crystalline free, synthetic

- **Standard for the Uniform Scheduling of Medicines and Poisons**

None of the ingredients is listed.

- **GHS label elements**

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

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Danger

- **Hazard-determining components of labelling:**

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

- **Hazard statements**

Self-heating: may catch fire.

Causes skin irritation.

Causes serious eye irritation.

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May cause an allergic skin reaction.

Precautionary statements

Wear protective gloves.

Avoid release to the environment.

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

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

Store bulk masses greater than 1 kg at temperatures not exceeding 5°C.

Maintain air gap between stacks/pallets.

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

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.

LIMITATION OF LIABILITY

This document is only intended to be used as guidance as regards the risks of which we are aware that are associated with the product. Every individual who works with the product or in close proximity of it must receive suitable training. Individuals who come into contact with the product must be capable of using their own judgement as regards conditions or methods for handling, storing and using the product. Alfa Laval is not liable for demands, losses or damage of any kind that arise from flaws or deficiencies in this document or from using, handling, storing or disposing of the product unless it can be proven that Alfa Laval has acted in a grossly negligent manner. Beyond what has been agreed upon and specified in writing with Alfa Laval in the individual case, Alfa Laval makes no promises or assumes any liability, including but not limited to implicit guarantees regarding marketability or appropriateness in terms of both the information provided in this document and the product to which the information refers. Please contact your local Alfa Laval Sales Company for further questions:

- **Department issuing MSDS:** Alfa Laval Materials and Chemistry Centre (MACC)

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Romania: romania.info@alfalaval.com
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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
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
Self-heat. 1: Self-Heating Substances and Mixtures, Hazard Category 1
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

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