



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

1.1 Product identifier

Trade name : Biresin® G33 Part A

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Tooling system

1.3 Details of the supplier of the safety data sheet

Company name of supplier : Sika Deutschland GmbH
Kornwestheimer Str. 103-107
D-70439 Stuttgart
Telephone : +49 711 8009 0
E-mail address of person : EHS@de.sika.com
responsible for the SDS

1.4 Emergency telephone number

Emergency CONTACT (24-Hour-Number):
GBK GmbH Global Regulatory Compliance +49(0)6132-84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Type of product : Mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Chronic aquatic toxicity, Category 2	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

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	H411	Toxic to aquatic life with long lasting effects.
Precautionary statements	Prevention:	
	P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
	P273	Avoid release to the environment.
	P280	Wear protective gloves/ eye protection/ face protection.
	Response:	
	P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
	P337 + P313	If eye irritation persists: Get medical advice/ attention.
	P362 + P364	Take off contaminated clothing and wash it before reuse.

Hazardous components which must be listed on the label:

- 500-033-5 reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)
- 240-260-4 1,6-bis(2,3-epoxypropoxy)hexane
- 224-518-3 4-morpholinecarbaldehyde

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700) 25068-38-6 500-033-5 01-2119456619-26-XXXX	Eye Irrit.2; H319 Skin Irrit.2; H315 Skin Sens.1; H317 Aquatic Chronic2; H411	>= 25 - < 40
1,6-bis(2,3-epoxypropoxy)hexane 16096-31-4 618-939-5 240-260-4 01-2119463471-41-XXXX	Skin Irrit.2; H315 Eye Irrit.2; H319 Skin Sens.1; H317 Aquatic Chronic3; H412	>= 5 - < 10
4-morpholinecarbaldehyde 4394-85-8 224-518-3 01-2119987993-12-XXXX	Skin Sens.1; H317	< 1



For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Allergic reactions
Excessive lachrymation
Erythema
Dermatitis
See Section 11 for more detailed information on health effects and symptoms.
- Risks : irritant effects
sensitising effects

Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for



extinction.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Use personal protective equipment.
Deny access to unprotected persons.

6.2 Environmental precautions

- Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

- Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

- For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Do not breathe vapours or spray mist. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitisation prob-



lems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re-sealed and kept upright to prevent leakage. Store in accordance with local regulations.

Storage class (TRGS 510) : 10, Combustible liquids

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Consult most current local Product Data Sheet prior to any use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166
Eye wash bottle with pure water

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.

Suitable for short time use or protection against splashes:
Butyl rubber/nitrile rubber gloves (0,4 mm),
Contaminated gloves should be removed.
Suitable for permanent exposure:

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Viton gloves (0.4 mm),
breakthrough time >30 min.

Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionally recommended for mixing and stirring work.

Respiratory protection : No special measures required.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : viscous
Colour : black
Odour : epoxy-like
Odour Threshold : No data available
Flash point : > 101 °C
Autoignition temperature : No data available
Decomposition temperature : No data available
Lower explosion limit (Vol-%) : No data available
Upper explosion limit (Vol-%) : No data available
Flammability : No data available
Explosive properties : No data available
Oxidizing properties : No data available
pH : Not applicable
Melting point/range / Freezing point : No data available
Boiling point/boiling range : No data available

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Vapour pressure	:	0,01 hPa
Density	:	ca. 1,93 g/cm ³ at 20 °C
Water solubility	:	insoluble
Partition coefficient: n- octanol/water	:	No data available
Viscosity, dynamic	:	ca. 15.500 mPa.s at 23 °C
Viscosity, kinematic	:	> 20,5 mm ² /s at 40 °C
Relative vapour density	:	No data available
Evaporation rate	:	No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Components:

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reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700):

Acute oral toxicity	: LD50 Oral (Rat): > 5.000 mg/kg
Acute dermal toxicity	: LD50 Dermal (Rabbit): > 20.000 mg/kg

1,6-bis(2,3-epoxypropoxy)hexane:

Acute oral toxicity	: LD50 Oral (Rat): 2.900 mg/kg
Acute dermal toxicity	: LD50 Dermal (Rat): > 2.000 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

Components:

reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700) :

Toxicity to fish	: LC50: 2 mg/l, 96 h, <i>Oncorhynchus mykiss</i> (rainbow trout)
Toxicity to daphnia and other aquatic invertebrates	: EC50: 1,8 mg/l, 48 h, <i>Daphnia magna</i> (Water flea)

12.2 Persistence and degradability

No data available



12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : In accordance with the EWC Waste Regulation the classification of waste is to be assigned to the jurisdiction of the origin of waste. Therefore, it is not possible to assign a particular waste identification number.
Completely emptied packagings may be given for recycling. Empty packaging may still contain hazardous residues. Empty packaging should be removed by a licensed waste contractor. Sika has agreed disposal contracts for all packaging which is brought into circulation in Germany.
For further details see www.sika.de

SECTION 14: Transport information

ADR	
14.1 UN number	: 3082
14.2 UN proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3 Transport hazard class(es)	: 9
14.4 Packing group	: III

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Classification Code	:	M6
Labels	:	9
Tunnel restriction code	:	(-)
14.5 Environmental hazards	:	yes

ADR

Transport in accordance with special provision 375

IATA

14.1 UN number : 3082
14.2 UN proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(epoxy resin)

14.3 Transport hazard class(es)	:	9
14.4 Packing group	:	III
Labels	:	9
14.5 Environmental hazards	:	yes

IATA

Transport in accordance with special regulation A 197

IMDG	:	
14.1 UN number	:	3082
14.2 UN proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3 Class	:	9
14.4 Packing group	:	III
Labels	:	9
EmS Number 1	:	F-A
EmS Number 2	:	S-F
14.5 Marine pollutant	:	yes

IMDG

Transport in accordance with 2.10.2.7 of the IMDG-Code

14.6 Special precautions for user

No data available

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

Prohibition/Restriction

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : None of the components are listed
(=> 0.1 %).

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REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH Information: All substances contained in our Products are
- preregistered or registered by our upstream suppliers, and/or
- preregistered or registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
E2	ENVIRONMENTAL HAZARDS	200 t	500 t

Water contaminating class (Germany) : WGK 2 significantly water endangering

VOC-CH (VOCV) : no VOC duties

VOC-EU (solvent) : Not applicable

15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Full text of H-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.
H412	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Chronic	Chronic aquatic toxicity
Eye Irrit.	Eye irritation
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitisation
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
CAS	Chemical Abstracts Service
DNEL	Derived no-effect level
EC50	Half maximal effective concentration
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
LD50	Median lethal dose (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)

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LC50	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
OEL	Occupational Exposure Limit
PBT	Persistent, bioaccumulative and toxic
PNEC	Predicted no effect concentration
REACH	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
SVHC	Substances of Very High Concern
vPvB	Very persistent and very bioaccumulative

Classification of the mixture:

Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
Aquatic Chronic 2	H411

Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

|| Changes as compared to previous version !