

Printing date 03/01/2022 Reviewed on 03/01/2022

1: Identification

· 1.1 Product identifier

· Trade name: SILIKAL RE 77 Comp. A

· Article number: RE 77-A

· Application of the substance / the preparation:

Epoxy resin Sealing

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Silikal America 609-B Fertilla Street Carrolton, GA 30117 Tel.: 770.830.1404 Fax.: 777.830.9213 info@silikalamerica.com

· Information department: Silikal America

• 1.4 Emergency telephone number: INFOTRAC 1-800-535-5053

2: Hazard(s) identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A 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 labeled according to the CLP regulation.

· Hazard pictograms



GHS07

· Signal word Warning

· Hazard-determining components of labeling:

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

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

oxirane, mono[(C12-14-alkyloxy)methyl] derivs

· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves.

P280 Wear eve protection / face protection.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

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P501

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

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 1Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 1 Fire = 1

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable. · vPvB: Not applicable.

3: Composition/information on ingredients

- · 3.2 Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dange	· Dangerous components:				
25068-	38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)	50-100%			
	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317				
9003-	36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight = 700)	10-25%			
	♦ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317				
68609-		2.5-10%			
	♦ Skin Irrit. 2, H315; Skin Sens. 1, H317				

[·] Additional information: For the wording of the listed hazard phrases refer to section 16.

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.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eve contact:

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

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

- · 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

No further relevant information available.

5: Fire-fighting measures

- 5.1 Extinguishing media
- · Suitable extinguishing agents:

Water

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Foam

Carbon dioxide

Fire-extinguishing powder

· 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Cool endangered receptacles with water spray.

6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective clothing.

Use respiratory protective device against the effects of fumes/dust/aerosol.

· 6.2 Environmental precautions:

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).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

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.

7: Handling and storage

- 7.1 Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Store in cool, dry conditions in well sealed receptacles.

Do not allow to enter sewers/ surface or ground water.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Store receptacle in a well ventilated area.

Protect from heat and direct sunlight.

- · Maximum storage temperature: 25 °C
- · 7.3 Specific end use(s) No further relevant information available.

8: Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

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· 8.1 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 creation 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.

Use skin protection cream for skin protection.

Breathing equipment:

Use suitable respiratory protective device only when aerosol or mist is formed.

- Recommended filter device for short term use: -
- · Protection of hands:



Protective gloves

· Material of gloves

Nitrile rubber, NBR

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.4 mm

· 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.

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

9: Physical and chemical properties

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

Form: Fluid
Color: Yellow tint
Odor: Characteristic
Odor threshold: Not determined.

· **pH-value:** Not determined.

· Change in condition

Melting point/Melting range:
Boiling point/Boiling range:

'Flash point:

Undetermined.
201 °C (394 °F)

140 °C (284 °F)

Not applicable.

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· Ignition temperature:	> 200 °C (> 392 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
· Vapor pressure:	Not determined.
 Density at 20 °C (68 °F): Relative density Vapor density Evaporation rate 	1.14 g/cm³ (9.513 lbs/gal) Not determined. Not determined. Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/wa	ter): Not determined.
 Viscosity: Dynamic at 20 °C (68 °F): Kinematic: 	1400 mPas Not determined.
· Solvent content: Organic solvents:	0.0 %
Solids content: 9.2 Other information	99.0 % No further relevant information available.

10: Stability and reactivity

- 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

Keep away from heat and direct sunlight.

No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: Reacts with alkali, amines and strong acids.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.
- · Additional information:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity: Based on available data, the classification criteria are not met.
- LD/LC50 values that are relevant for classification:
 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)

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· Primary irritant effect:

on the skin:

Causes skin irritation.

on the eye:

Causes serious eye irritation.

· Sensitization:

May cause an allergic skin reaction.

- · Additional toxicological information:
- · Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (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.

The material is harmful to the environment.

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.

13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation:

Must be specially treated adhering to official regulations.

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

· Uncleaned packagings:

· Recommendation:

Packaging can be reused or recycled after cleaning.

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

· Recommended cleansing agent:

Alcohol

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Acetone

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14.1 UN-Number DOT, ADR, IMDG, IATA	UN3082
14.2 UN proper shipping name DOT	Environmentally hazardous substances, liquid n.o.s. (reaction product: bisphenol-A (epichlorhydrin) epoxy resin (number averag molecular weight = 700), reaction product bisphenol-F-(epichlorhydrin) epoxy resin (number averag bisphenol-F-(epichlorhydrin) epoxy resin (number average)
ADR	average molecular weight = 700)) 3082 Environmentally hazardous substances liquid, n.o.s. (reaction product: bisphenol-A (epichlorhydrin) epoxy resin (number averag molecular weight = 700), reaction product bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight = 700))
IMDG	ENVIRONMENTALLY HAZARDOU SUBSTANCE, LIQUID, N.O.S. (reaction product bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), reaction product bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight = 700)), MARIN POLLUTANT
IATA	Environmentally hazardous substance, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrir epoxy resin (number average molecular weight 700), reaction product: bisphenol-F-(epichlorhydrir epoxy resin (number average molecular weight 700))
14.3 Transport hazard class(es) DOT, ADR, IMDG, IATA	
\wedge	
Class	articles
Label	<u> </u>
Label 14.4 Packing group	articles 9 III Product contains environmentally hazardous ubstances: reaction product: bisphenol-A (epichlorhydrin) epoxy resin (number average)
Label 14.4 Packing group DOT, ADR, IMDG, IATA	articles 9 III Product contains environmentally hazardous ubstances: reaction product: bisphenol-A (epichlorhydrin) epoxy resin (number average molecular weight = 700) Yes
Label 14.4 Packing group DOT, ADR, IMDG, IATA 14.5 Environmental hazards:	articles 9 III Product contains environmentally hazardous ubstances: reaction product: bisphenol-A (epichlorhydrin) epoxy resin (number average molecular weight = 700)

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(Contd. of page 7) · Danger code (Kemler): 90 · EMS Number: F-A.S-F Stowage Category Α · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · Transport/Additional information: · Remarks: Special marking with the symbol (fish and tree). · Excepted quantities (EQ) Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 · 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 UN 3082 ENVIRONMENTALLY HAZARDOUS · UN "Model Regulation": SUBSTANCES, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT = 700), REACTION PRODUCT: BISPHENOL-F-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT = 700)), 9, III

15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· AGW (German Workplace Threshold Value)

None of the ingredients is listed.

- · National regulations:
- · Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- · 15.2 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.

- · Department issuing SDS: Silikal America
- · Date of preparation / last revision 04/27/2016 / 17
- · Abbreviations and acronyms:

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

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

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

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

* Data compared to the previous version altered.

- US