

SAFETY DATA SHEET

1. Identification

Product identifier: ALBIDUR® EP 2240 A

Chemical name: Preparation of bisphenol A diglycidylether and silicone rubber

Other means of identification

Recommended use: Industrial use

Recommended restrictions: None known.

Manufacturer/Importer/Distributor Information

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Germany

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2. Hazard(s) identification

Classification according to GHS

Health Hazards

Acute toxicity (Dermal)	Category 5
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Skin sensitizer	Category 1

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 2

Label Elements

Hazard Symbol:

Signal Word: Warning

Hazard Statement: May be harmful in contact with skin.
 Causes skin irritation.
 Causes serious eye irritation.
 May cause an allergic skin reaction.
 Toxic to aquatic life with long lasting effects.

Precautionary Statements
Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/eye protection/face protection.

Response: IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment (see supplemental first aid instructions on this label). Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Collect spillage.

Disposal: Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards: None known.

3. Composition/information on ingredients

Chemical name:

Preparation of bisphenol A diglycidylether and silicone rubber

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
bis-[4-(2,3-epoxipropoxy)phenyl]propane	No data available.	1675-54-3	30 - 60%
Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol	No data available.	869858-05-9	<10%

mono[2-hydroxy-3-[[6-(2-oxiranylm			
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* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of necessary first-aid measures

General information:	Remove soiled or soaked clothing immediately
Inhalation:	fresh air supply, consult a doctor if feeling unwell.
Skin Contact:	In case of contact with skin wash off with soap and water. If skin irritation persists, call a physician.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water. If symptoms persist, seek medical advice.
Ingestion:	Thoroughly clean the mouth with water In case of discomfort: Supply with medical care.
Personal Protection for First-aid Responders:	No data available.

Most important symptoms and effects, both acute and delayed

Symptoms:	skin irritation possible Serious eye irritation
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Treat symptomatically.
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5. Fire-fighting measures

General Fire Hazards:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Suitable (and unsuitable) extinguishing media	
Suitable extinguishing media:	foam, carbon dioxide, dry powder, water spray.
Unsuitable extinguishing media:	High volume water jet.
Special hazards arising from the substance or mixture:	In the event of fire the following can be released: - Carbon monoxide, carbon dioxide, silicon dioxide Under certain conditions of combustion traces of other toxic substances cannot be excluded
Special protective equipment and precautions for fire-fighters	
Special fire-fighting procedures:	No specific precautions.

Special protective equipment for fire-fighters:

Do not inhale explosion and/or combustion gases. Self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment.

Accidental release measures:

No data available.

Methods and material for containment and cleaning up:

Take up with absorbent material (eg sand, kieselguhr, universal binder) Dispose of absorbed material in accordance with the regulations.

Environmental Precautions:

Do not allow to enter drains or waterways Prevent product from getting into subsoil/soil.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):

No data available.

Safe handling advice:

Provide good ventilation of working area (local exhaust ventilation if necessary). Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes.

Contact avoidance measures:

No data available.

Storage

Safe storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Do not store together with amines. Do not store together with mercaptans. Do not store with acids or alkalies. Keep at temperature not exceeding 40°C.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Observe national threshold limit values.

Biological Limit Values

Observe national threshold limit values.

Appropriate Engineering Controls

No data available.

Individual protection measures, such as personal protective equipment

General information: No data available.

Eye/face protection: Safety glasses

Skin Protection

Hand Protection: Material: Butyl rubber.
 Break-through time: 480 min
 Glove thickness: 0,4 mm
 Material: Nitrile rubber.
 Break-through time: 480 min
 Glove thickness: 0,4 mm

Other: protective clothing

Respiratory Protection: in case of formation of vapours/aerosols: Short term: filter apparatus, combination filter A-P2

Hygiene measures: Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Remove soiled or soaked clothing immediately. Use skin protective preparation as preventive skin protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state: liquid
Form: Viscous Liquid
Color: White
Odor: Odorless
Odor Threshold: not measured
Freezing point: < -4 °F/< -20 °C
Boiling Point: > 392 °F/> 200 °C
Flammability: not measured

Upper/lower limit on flammability or explosive limits

Explosive limit - upper: not measured
Explosive limit - lower: not measured
Flash Point: > 248 °F/> 120 °C
Self Ignition Temperature: not measured
Decomposition Temperature: 392 - 482 °F/200 - 250 °C
pH: Not applicable
Viscosity
Dynamic viscosity: 40.000 mPa.s (77 °F/25 °C)
Kinematic viscosity: 36364 mm²/s (77 °F/25 °C, calculated)
Flow Time: No data available.

Solubility(ies)

Solubility in Water: Insoluble

Solubility (other):	not measured
Partition coefficient (n-octanol/water):	not measured
Vapor pressure:	< 1 hPa (68 °F/20 °C)
Relative density:	not measured
Density:	1,1 g/cm ³ (68 °F/20 °C)
Bulk density:	No data available.
Relative vapor density:	not measured
Particle characteristics	
Particle Size:	No data available.
Particle Size Distribution:	No data available.
Specific surface area:	No data available.
Surface charge/Zeta potential:	No data available.
Shape:	No data available.
Crystallinity:	No data available.
Surface treatment:	No data available.

Other information

Explosive properties:	not measured
Oxidizing properties:	not oxidizing
Minimum ignition temperature:	not measured
Metal Corrosion:	Not corrosive to metals
Evaporation Rate:	not measured

10. Stability and reactivity

Reactivity:	see section "Possibility of hazardous reactions".
Chemical Stability:	The product is stable under normal conditions.
Possibility of hazardous reactions:	Risk of polymerisation.
Conditions to avoid:	Product polymerizes at room temperature with amines, mercaptans and Lewis acids, which process generates heat.
Incompatible Materials:	Amines. Mercaptans. Acids. Alkalies.
Hazardous Decomposition Products:	None with proper storage and handling.

11. Toxicological information

Information on toxicological effects

Information on likely routes of exposure

Inhalation:	Information on effects are given below.
Skin Contact:	Information on effects are given below.

Eye contact: Information on effects are given below.

Ingestion: Information on effects are given below.

Acute toxicity (list all possible routes of exposure)

Oral

Product: No data available.

Components:
 bis-[4-(2,3-epoxipropoxy)phenyl]propane
 LD 50 (Rabbit): 19.800 mg/kg
 LD 50 (Rat): > 15.000 mg/kg
 LD 50 (Rat): > 5.000 mg/kg

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranylmethoxy)hexyl]oxy]propyl methyl-1,2-cyclohexanedicarboxylate
 No data available.

Dermal

Product: LD 50 (ATEmix): 3.335 mg/kg

Components:
 bis-[4-(2,3-epoxipropoxy)phenyl]propane
 LD 50 (Rat): > 2.000 mg/kg

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranylmethoxy)hexyl]oxy]propyl methyl-1,2-cyclohexanedicarboxylate
 No data available.

Inhalation

Product: No data available.

Components:
 bis-[4-(2,3-epoxipropoxy)phenyl]propane
 Vapour, No data available. Dusts, mists and fumes, No data available.

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylat
 e

Vapour, No data available. Dusts, mists and fumes, No data available.

Repeated dose toxicity

Product:

No data available.

Components:

bis-[4-(2,3-
 epoxipropoxi)phenyl]prop
 ane

No data available.

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylat
 e

No data available.

Skin Corrosion/Irritation

Product:

No data available.

Components:

bis-[4-(2,3-
 epoxipropoxi)phenyl]prop
 ane

OECD 404 (Rabbit): Irritating.

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylate

Irritating.

Serious Eye Damage/Eye Irritation

Product:

No data available.

Components:

bis-[4-(2,3-
 epoxipropoxi)phenyl]prop
 ane

OECD 405 (Rabbit): Irritating.

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylate

Irritating.

Respiratory or Skin Sensitization

Product: No data available.

Components: bis-[4-(2,3-epoxipropoxy)phenyl]prop
 ane Local Lymph Node Assay (LLNA), OECD 429 (Mouse): May cause
 sensitization by skin contact.

Siloxanes and Silicones, May cause sensitization by skin contact.

di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylate

Carcinogenicity

Product: No data available.

Components: bis-[4-(2,3-epoxipropoxy)phenyl]prop
 ane No data available.

Siloxanes and Silicones, No data available.

di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylate

Germ Cell Mutagenicity

No data available.

In vitro

Product: No data available.

Components: bis-[4-(2,3-epoxipropoxy)phenyl]prop
 ane Ames test (OECD 471): negative

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylat
 e

No data available.

In vivo

Product: No data available.

Components:
 bis-[4-(2,3-
 epoxipropoxi)phenyl]prop
 ane No data available.

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylat
 e

No data available.

Reproductive toxicity

Product: No data available.

Components:
 bis-[4-(2,3-
 epoxipropoxi)phenyl]prop
 ane No data available.

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylate

No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Components:
 bis-[4-(2,3-
 epoxipropoxi)phenyl]prop
 ane No data available.

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylate

No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Components:
 bis-[4-(2,3-
 epoxipropoxi)phenyl]prop
 ane No data available.

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylate

No data available.

Aspiration Hazard

Product: Not classified

Components:
 bis-[4-(2,3-
 epoxipropoxi)phenyl]prop
 ane Not classified

Siloxanes and Silicones,
 di-Me, 3-hydroxypropyl
 Me, ethers with
 polyethylene-
 polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-
 oxiranylmethoxy)hexyl]ox
 y]propyl methyl-1,2-
 cyclohexanedicarboxylate

Not classified

Information on health hazards

Other hazards

Product: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane	LC 50 (Oncorhynchus mykiss, 96 h): 1,5 - 1,75 mg/l LC 50 (Oncorhynchus mykiss, 96 h): 2,3 - 3,6 mg/l LC 50 (Oncorhynchus mykiss, 96 h): 1,2 mg/l
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Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranyl)me	No data available.
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Aquatic Invertebrates

Product:	No data available.
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Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane	EC 50 (Daphnia magna, 48 h): 1,1 - 2,8 mg/l EC 50 (Daphnia magna, 48 h): 1,7 mg/l EC 50 (Daphnia magna, 48 h): 2,7 mg/l
Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranyl)me	No data available.

Toxicity to Aquatic Plants

Product:	No data available.
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Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane	EC 50 (Scenedesmus capricornutum (fresh water algae), 72 h): 9,4 mg/l (US-EPA-method) EC 50 (Scenedesmus capricornutum (fresh water algae), 72 h): 4,2 mg/l (US-EPA-method)
Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranyl)me	No data available.

Toxicity to microorganisms

Product:	No data available.
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Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane	EC 50 (Bacteria, 3 h): > 100 mg/l
Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranyl)me	No data available.

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane
No data available.

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranyl)me
No data available.

Aquatic Invertebrates

Product: No data available.

Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane
NOEC (Daphnia magna, 21 d): 0,3 mg/l (OECD 211)
Lowest Observed Effect Concentration (Daphnia magna, 21 d): 1 mg/l (OECD 211)

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranyl)me
No data available.

Toxicity to Aquatic Plants

Product: No data available.

Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane
NOEC (Scenedesmus capricornutum (fresh water algae), 72 h): 2,4 mg/l (US-EPA-method)
NOEC (Scenedesmus capricornutum (fresh water algae), 72 h): > 11 mg/l (US-EPA-method)

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiranyl)me
No data available.

Toxicity to microorganisms

Product: No data available.

Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane
EC 50 (Bacteria, 3 h): > 100 mg/l

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-
No data available.

polypropylene glycol
 mono[2-hydroxy-3-[[6-(2-oxiran-2-yl)oxy]phenyl]propane]

Persistence and Degradability

Biodegradation

Product: No data available.

Components:
 bis-[4-(2,3-epoxipropoxy)phenyl]propane 82 % (28 d, OECD 301 F) The product is not biodegradable. Hydrolysis in water, aerobic

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiran-2-yl)oxy]phenyl]propane] No data available.

BOD/COD Ratio

Product: No data available.

Components:
 bis-[4-(2,3-epoxipropoxy)phenyl]propane No data available.

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiran-2-yl)oxy]phenyl]propane] No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Components:
 bis-[4-(2,3-epoxipropoxy)phenyl]propane No data available.

Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiran-2-yl)oxy]phenyl]propane] No data available.

Partition Coefficient n-octanol / water (log K_{ow})

Product: Log K_{ow}: not measured

Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane	Log Kow: 2,64 - 3,78 25 °C (OECD 117) Yes
Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiran)yl]me	Log Kow: 2,918 25 °C (OECD 117) Yes
	No data available.

Mobility in soil:

Product No data available.

Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane	No data available.
Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiran)yl]me	No data available.

Product No data available.

Components:

bis-[4-(2,3-epoxipropoxy)phenyl]propane	No data available.
Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethers with polyethylene-polypropylene glycol mono[2-hydroxy-3-[[6-(2-oxiran)yl]me	No data available.

Other adverse effects:

Other hazards

Product: Do not allow to enter soil, waterways or waste water canal.

13. Disposal considerations

Disposal methods: In accordance with local authority regulations, take to special waste incineration plant

Contaminated Packaging: If empty contaminated containers are recycled or disposed of, the receiver must be informed about possible hazards.

14. Transport information

International Regulations

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (bis-[4-(2,3-epoxipropoxy)phenyl]propane)
Class	:	9
Packing group	:	III
Labels	:	9MI
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964
Environmentally hazardous	:	yes

IMDG-Code

UN number or ID number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bis-[4-(2,3-epoxipropoxy)phenyl]propane)
Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes
Remarks	:	Stowage category A

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

15. Regulatory information
16. Other information, including date of preparation or last revision

Issue Date: 04.03.2019

Version #: 2.1

Further Information: No data available.

Revision Information: Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Disclaimer:

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