



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

1.1 Product identifier

Trade name : Sika® Injection-451 Part A

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

Product use : Concrete protection and repair system

1.3 Details of the supplier of the safety data sheet

Company name of supplier : Sika Hellas ABEE
15 Protomagias Street
145 68 Kryoneri / Athens
Telephone : +30 210 81 60 600
Telefax : +30 210 81 60 606
E-mail address of person responsible for the SDS : EHS@gr.sika.com

1.4 Emergency telephone number

Poison Information Center + 30 210 77 93 777

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, 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 : Danger

Hazard statements : H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.



	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:	
	P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
	P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
	P362 + P364	Take off contaminated clothing and wash it before reuse.

Hazardous components which must be listed on the label:

- reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)
- 1,4-bis(2,3 epoxypropoxy)butane

Additional Labelling

EUH205 Contains epoxy constituents. May produce an allergic reaction.

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

Components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
reaction product: bisphenol-A-(epichlorhydrin); 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 Chronic 2; H411	$\geq 60 - < 80$



1,4-bis(2,3 epoxypropoxy)butane	2425-79-8 219-371-7 01-2119494060-45-XXXX	Aquatic Chronic 3; H412 Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Dam. 1; H318	>= 25 - < 40
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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 : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
 In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 Continue rinsing eyes during transport to hospital.
 Remove contact lenses.
 Keep eye wide open while rinsing.
- 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 damage.



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 : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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 material 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 problems 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 resealed and kept upright to prevent leakage. Store in accordance with local regulations.
- Further information on storage stability : 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

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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:

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 : liquid

Colour : colourless

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable

Melting point/range / Freezing point : No data available

Boiling point/boiling range : No data available

Flash point : ca. 142 °C
Method: closed cup

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower

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flammability limit	
Vapour pressure	: 0,001 hPa
Relative vapour density	: No data available
Density	: ca. 1,1 g/cm ³ (20 °C)
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: ca. 280 mPa.s (20 °C)
Viscosity, kinematic	: > 20,5 mm ² /s (40 °C)
Explosive properties	: No data available
Oxidizing properties	: 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 : Oxidizing agents



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:

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

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 20.000 mg/kg

1,4-bis(2,3 epoxypropoxy)butane:

Acute oral toxicity : LD50 Oral (Rat): 1.163 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

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); epoxy resin (number average molecular weight ≤ 700):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 2 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 1,8 mg/l
aquatic invertebrates Exposure time: 48 h

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 : The generation of waste should be avoided or minimized wherever possible.
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.
Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.



Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

- European Waste Catalogue : 08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances
- Contaminated packaging : 15 01 10* packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1 UN number

- ADR** : UN 3082
- IMDG** : UN 3082
- IATA** : UN 3082

14.2 UN proper shipping name

- ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
((epoxy resin)
- IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(epoxy resin)
- IATA** : Environmentally hazardous substance, liquid, n.o.s.
((epoxy resin)

14.3 Transport hazard class(es)

- ADR** : 9
- IMDG** : 9
- IATA** : 9

14.4 Packing group

- ADR**
- Packing group : III
- Classification Code : M6
- Hazard Identification Number : 90
- Labels : 9
- Tunnel restriction code : (-)
- IMDG**
- Packing group : III
- Labels : 9
- EmS Code : F-A, S-F
- IATA (Cargo)**
- Packing instruction (cargo aircraft) : 964
- Packing instruction (LQ) : Y964

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Packing group : III
Labels : Miscellaneous Dangerous Goods

IATA (Passenger)

Packing instruction (passenger aircraft) : 964
Packing instruction (LQ) : Y964
Packing group : III
Labels : Miscellaneous Dangerous Goods

14.5 Environmental hazards

ADR

Environmentally hazardous : yes

IMDG

Marine pollutant : yes

IATA (Passenger)

Environmentally hazardous : yes

IATA (Cargo)

Environmentally hazardous : yes

14.6 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.

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors : Not applicable

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

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

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

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

REACH Information: All substances contained in our Products are

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- registered by our upstream suppliers, and/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.

E2 ENVIRONMENTAL HAZARDS

Volatile organic compounds : Law on the incentive tax for volatile organic compounds (VOCV)
Volatile organic compounds (VOC) content: < 0,01 %
no VOC duties

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content:
< 0,01 %, 0,04 g/l
VOC content excluding water

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Full text of H-Statements

- H302 : Harmful if swallowed.
- 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.
- H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

- Acute Tox. : Acute toxicity
- Aquatic Chronic : Long-term (chronic) aquatic hazard
- Eye Dam. : Serious eye damage
- Eye Irrit. : Eye irritation
- Skin Irrit. : Skin irritation
- Skin Sens. : Skin sensitisation
- ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
- 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 dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
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

Further information

Classification of the mixture:

Skin Irrit. 2	H315
Eye Dam. 1	H318
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 !

GR / EN