

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2015/830 and Regulation No 1272/2008/EC (CLP)

Printing date 11.09.2018

Version number 1

Revision: 11.09.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** EP 211 ESD A**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

Application of the substance / the mixture:

Epoxy coating

Epoxy resin

1.3 Details of the supplier of the safety data sheet**Manufacturer/Supplier:**PENETRON HELLAS S.A. G.E.MH. No: 07278001000
50, THRAKOMAKEDONON AV., 136 79 ACHARNES, GREECE

TEL.: +30 210 2448250 - FAX: + 30 210 2476803

Email: info@penetron.gr Site: www.penetron.gr

1.4 Emergency telephone number:

European Emergency Tel.: 112

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation EC No 1272/2008 CLP:**

GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

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.

2.2 Label elements**Labelling according to Regulation EC No 1272/2008 CLP:**

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:

GHS07 GHS09

Signal word: Warning

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Hazard-determining components of labelling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
 1,6-bis(2,3-epoxypropoxy)hexane

Hazard statements:

H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Chemical characterisation: Mixtures**

Description: Mixture: consisting of the following components.

Ingredients according Regulation (EU) 830/2015:

CAS: 25068-38-6 NLP: 500-033-5 Index number: 603-074-00-8 Reg.nr.: 01-2119456619-26-XXXX	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) ----- ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25-50%
CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5 Reg.nr.: 01-2119492630-38-XXXX	Benzyl alcohol ----- ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	2.5-<10%
CAS: 16096-31-4 Reg.nr.: 01-2119463471-41-XXXX	1,6-bis(2,3-epoxypropoxy)hexane ----- ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5-<10%

SECTION 4: First aid measures**4.1 Description of first aid measures**

General information: Seek immediate medical advice.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

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After skin contact: Immediately wash with water and soap and rinse thoroughly.**After eye contact:**

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

Remove contact lenses and continue rinsing for several minutes

Avoid strong water jet-risk of cornea damage, consult a doctor.

After swallowing:

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Seek immediate medical advice.

Never give anything by mouth to an unconscious person.

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.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray.

Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture No further relevant information available.**5.3 Advice for firefighters****Protective equipment:**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Additional information

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

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

Avoid contact with skin and eyes.

Avoid inhalation of dust.

Ensure adequate ventilation.

6.1.1 For non-emergency personnel Avoid contact with dripping or leaking material**6.1.2 For emergency responders**

First-aid responders must wear protective clothing, gloves, goggles and respiratory device.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:**

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles.

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.

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SECTION 7: Handling and storage**7.1 Precautions for safe handling**

No special measures required.

Open and handle receptacle with care.

Prevent formation of dust.

Avoid contact with skin, eyes and clothing.

Information about fire - and explosion protection: No special measures required.**7.2 Conditions for safe storage, including any incompatibilities****Storage:** Store in cool, dry conditions in well sealed receptacles.**Requirements to be met by storerooms and receptacles:** Store in a cool location.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:**

Keep container tightly sealed.

Store under lock and key and with access restricted to technical experts or their assistants only.

7.3 Specific end use(s) No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 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.

8.2 Exposure controls**8.2.1. Appropriate engineering controls**

Take appropriate protective measures with regard to the handling of chemicals and mixtures.

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.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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Material of gloves

Butyl rubber, BR - 0,7 mm

Nitrile rubber, NBR- 0,4 mm

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 mixture 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.

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye protection:

Tightly sealed goggles

Body protection:

Protective work clothing

Environmental exposure controls: Prevent enter of the product into drains, surface and groundwater and soil.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Liquid
Colour:	Various colours
Odour:	Characteristic
Odour threshold:	Not determined

pH value: Not determined

Flash point: >100 °C
Not Flammable

Flammability (solid, gas): Not applicable

Auto-ignition temperature: 435 °C

Decomposition temperature: Not determined

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined
Upper:	Not determined

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Vapour pressure at 20 °C:	0.1 hPa
Density at 20 °C:	1.51 g/cm ³ (DIN EN IO 2811-2)
Relative density	Not determined
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Not miscible
Partition coefficient: n-octanol/water:	Not determined
Viscosity:	
Dynamic at 20 °C:	2,500 mPas (DIN EN ISO 3219)
Kinematic:	Not determined
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity**10.1 Reactivity** Stable under normal conditions**10.2 Chemical stability** Material is stable under normal conditions.**Thermal decomposition / conditions to be avoided** Stable at environment temperature.**10.3 Possibility of hazardous reactions**

Exothermic polymerisation

Reacts with alcohols.

Reacts with amines.

Reacts with alkali (lyes).

Reacts with strong acids.

10.4 Conditions to avoid No further relevant information available.**10.5 Incompatible materials** No further relevant information available.**10.6 Hazardous decomposition products** Corrosive gases/vapours**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity** Based on available data, the classification criteria are not met.**LD/LC50 values relevant for classification:****ATE (Acute Toxicity Estimates)**

Oral	LD50	>12,300-49,200 mg/kg (rat)
Inhalative	LC50/4 h (vapour)	>110-440 mg/l

CAS: 100-51-6 Benzyl alcohol

Oral	LD50	1,230 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)
Inhalative	LC50/4 h (vapour)	8.8 mg/l (rat)

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

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Respiratory or skin sensitisation

May cause an allergic skin reaction.

Repeated dose toxicity Based on the data, the classification criteria are not fulfilled.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard**Not classified as a risk for aspiration according to paragraphs 3.10.3.3.1.1. & 3.10.3.3.1.2 of CLP Regulation 1272/2008 / EC. The viscosity of the mixture at 40 ° C is greater than 20.5 mm² / s.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:**

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

EC50/48 h 1.8 mg/l (Daphnia (Wasserfloh))

EC50/96 h 220 mg/l (Grünalge (Desmodesmus subspicatus))

LC50/96 h 2 mg/l (Leuciscus idus (Goldorfe))

NOEC / 21 Tage 0.3 mg/l (Daphnia (Wasserfloh))

100-51-6 Benzyl alcohol

EC50/96 h 400 mg/l (Daphnia (Wasserfloh))

640 mg/l (Scenedesmus subspicatus (Alge))

16096-31-4 1,6-Hexandiol-diglycidylether

EC50/48 h 23.1 mg/l (algae (Algen))

47 mg/l (Daphnia (Wasserfloh))

LC50/96 h 30 mg/l (For)

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.**Ecotoxicological effects:****Remark:** Toxic for fish**Additional ecological information:****General notes:**

Also poisonous for fish and plankton in water bodies.

The product contains materials that are harmful to the environment.

12.5 Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Other adverse effects** No further relevant information available.

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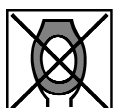
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SECTION 13: Disposal considerations**13.1 Waste treatment methods****Recommendation**

Dispose according to National Regulations.



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

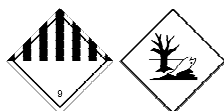
Contact manufacturer for recycling information.

Waste disposal key:

08 04 09 - waste adhesives and sealants containing organic solvents or other dangerous substances.

Uncleaned packaging:**Recommendation:** Disposal must be made according to official regulations.**SECTION 14: Transport information****14.1 UN-Number****ADR, IMDG, IATA**

UN3082

14.2 UN proper shipping name**ADR**3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700))**IMDG**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)), MARINE POLLUTANT**IATA**ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700))**14.3 Transport hazard class(es)****ADR, IMDG, IATA****Class**

9 Miscellaneous dangerous substances and articles.

Label

9

14.4 Packing group**ADR, IMDG, IATA**

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14.5 Environmental hazards:	Environmental Hazardous Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)
Marine pollutant:	Yes Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
Danger code (Kemler):	90
EMS Number:	F-A,S-F
Stowage Category	A
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

Transport/Additional information:**ADR**

Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

Transport category

3

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 ml

UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT:
BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN
(NUMBER AVERAGE MOLECULAR WEIGHT \leq 700)),
9, III

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH Regulation 1907/2006/EC

Regulation (EU) 2015/830

CLP Regulation 1272/2008/EC

Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

Council Directive 94/33/EC on the protection of young people at work, as ammended.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Directive 2012/18/EU**Named dangerous substances - ANNEX I** Substance is not listed.**Seveso category E2** Hazardous to the Aquatic Environment**Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

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REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3**National regulations:****Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**

It doesn't contain substances of very high concern (SVHC).

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

Relevant phrases

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

Department issuing SDS:

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 REACH & Chemical Services Department
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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

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3