

EPODOL – COMPONENT A

Revision Date: 01.06.2016 Revision No:02

1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Name: Epodol Component A
Intended Use: Epoxy based repair mortar

1.2. Details of the supplier of the safety data sheet

Supplier Name: Entegre Harç San ve Tic. A. Ş.

Adress: Hüseyinli Köyü Beykoz Cad. No:222/4 34799 Çekmeköy / İstanbul

Phone: + 90 216 434 50 96 **Fax:** + 90 216 434 63 89

E-Mail: <u>info@entegreharc.com.tr</u>

1.3. Emergency Phone Number

Company Number + 90 216 434 50 96

2. HAZARD IDENTIFICATION

2.1. Classification of the subtance or mixture

2.1.1. Hazard Classes and Categories

Skin İrr. 2 – H 315 Eye Dam. 2 – H319 Skin Sens. 1 – H 317

Aquatic Chronic 2 – H411

2.1.2. Hazard Phrases

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.

2.1.3. Warning Phrases

P102 Keep out of reach of children.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye 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.

P501 Dispose of contents / container in accordance with regulations.



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2.2. Label Elements

2.2.1. Pictogram



2.2.2. Signal Word

Danger

2.2.3. Hazardous Ingredients For Labeling

Bisphenol-A, Epichlorohydrin resin

2.3. Other Hazards

All of the threads with the hazard statements are given in Section 16.

3. <u>COMPOSITION/INFORMATION ON INGREDIENTS</u>

3.1. Materials

Substance or Compound	Einecs No	Cas No	Concent %	Classification
Bisphenol-A, Epichlorohydrin resin	500-033-5	25068-38-6	< 25	Skin İrr. 2 – H 315 Eye Dam. 2 – H319 Skin Sens. 1 – H 317 Aquatic Chro. 2 – H411

^{*} See section 16 for the whole of this section of the H-phrases

4. FIRST AID MEASURES

4.1. General Recommendations

Consult a physician. Show this safety data sheet to the physician.

4.2. Inhalation

This product is not classified as dangerous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

4.3. Eye Contact

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes.

If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.



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4.4. Skin Contact

This product is not classified as dangerous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

4.5. Ingestion

Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

5. FIREFIGHTING MEASURES

5.1 General Information

The product is not spontaneously flammable show feature.

5.2. Suitable Extinguishing Media

Use sand, alcohol-resistant foam, dry chemical, carbon dioxide (CO₂) or water-spray.

5.3. Special hazards arising from the substance or mixture

Burning creates black and dense smoke. CO gas is formed. It should also be taken into account that during the fire other toxic gases (such as HCl) may occur. Avoid breathing fumes; Exposure to degradation products poses a danger to health. Do not allow extinguishing liquids to enter drains or water courses.

5.4. Advice forfirefighting

In case of fire, wear suitable respiratory equipment with positive air supply. Minimum emergency facilities and equipment should be available.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions,

Personal protective equipments are used.

6.2. Environmental precautions

Prevent leaks and spills. Do not discharge into the drains. Discharge into the environment must be avoided.

6.3. Methodes for celaning up

Absorb the liquid binder with dust (sand, diatomite, acid binders, universal binders, sawdust). Collect in the appropriate container for large quantities of debris. If not used, dispose of it. Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.



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7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with eyes and skin.

Use only in well-ventilated areas. Do not eat or drink at the work place. Avoid contact with skin and eyes. Do not breathe vapors and aerosols. Use impermeable gloves, glasses, plastic apron, face shield, hat, boots.

7.2. Storage

Store the product in a dry, cool and well-ventilated place away from direct sunlight.

Always keep containers tightly closed. Do not smoke.

Containers should be carefully closed again and kept upright to prevent leakage of the product.

Non-authorized persons should be prohibited from entering the storage zone.

Keep these places adequately ventilated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure Limits

STEL / TWA: Not detected

8.2. Personal Protective Equipment

Foodstuffs, Keep away from drink and animal feed. Contaminated, remove immediately all contaminated clothing, reuse of wash. Wash your hands after work and the work of breaks. Gloves must be inspected regularly and prior to each use.

Respiratory -related precautionary measures

In cases where ventilation is insufficient to use respiratory protective equipment should be considered.

Hand protection

Gloves should be selected in accordance with a standard pharmaceutically acceptable carrier.

Eye protection

Use chemical safety glasses with side shields

Body protection

Wear protective clothing such as overalls, PVC aprons and boots.



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9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Appearance:</u> Viscous Liquid

<u>Colour:</u> White Odour: Weak

<u>Flammability:</u> Not applicable <u>Solubility in water:</u> Insoluble in water

Specific gravity (20 °C): ~ 2,0 g/m³

10. STABILITY AND REACTIVITY

10.1. Stability

Stable at ambient temperature and under normal conditions of use.

10.2. Hazardous Reactions

If it is used in accordance with the technical specifications, there is no deterioration.

Keep away from strong acids and alkalis from oxidizing agents to avoid exothermic reactions.

10.3. Hazardous Decomposition Products

If the product is exposed to high temperatures, the product may form hazardous components such as carbon monoxide and dioxide, smoke, nitric oxide.

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

Bisphenol-A-Epichlorohydrin Resin

LD50/Oral/Rat: > 5.000 mg/kg

LD50/Dermal/Rabbit: > 5.000 mg/kg

11.2. Information on toxic effects

The product is not subject to classification according to the calculation method of the General AT Classification Guideline for Preparations as regulated in the latest version.

When used and used in accordance with specifications, the product has no harmful effects on the basis of our experience and the information provided to us.

No known sensitizing effect.

11.3. Effect on Health

Bisphenol-A-Epichlorohydrin Resin

LC50 (respiration, 4 hours): 6,09 mg / I (Rat)



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In case of skin and eye contact: Irritating to skin and mucous membranes.

Sensitization possible in contact with skin

Eye irritant effect.

Ingestion: No information available Skin contact: May cause allergies

Eye contact: May cause serious eye irritation

No sensitivity studies were carried out on the mixture. According to the compositions, the

mixture is not likely to cause sensitivity.

11.3. Additional Toxicological Warnings:

The product has not been tested. Toxicological classification was made based on content information and available information.

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity

- LC50 (Fish, 96 hours): 2 mg/l
- · EC50 (Daphnia, 48 hours):1,8 mg/l
- EC50 (Alg, 72 hours):11 mg/l
- IC50 (Bacterium, 18 hours): > 42,6 mg/l
- NOEC (Dapnia,21 days): 0,3 mg/l

Prevent the product from reaching water sources, sewage systems or sewage systems.

No ecological work is available. So far, no harmful effects on human and environment have been observed. When used as intended, does not have any environmental poisoning effect according to available information.

12.2 Persistence and Biodegradability

It is invalid.

The experimental information related to the eco-toxicological properties of the product itself is not available.

No data available

13. DISPOSAL CONSIDERATIONS

Product waste should be disposed of in closed containers or in containers, or disposed of in accordance with local regulations. Waste packagings shall be emptied in accordance with the procedure. Carefully discharged packages are construction sites or commercial waste.



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14. TRANSPORT INFORMATION

	ADR	RID	ADNR	IMDG	IATA/ ICAO
Hazard Class	9	9	9	9	9
Packaging Group	III	III	III	III	III
UN No	UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
Hazard Label	•	•	•	•	9
Transportation Name	HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains epoxy resin) 9 (III)				
Marine Pollutant	-	-	-	yes	-
Environmental Hazard	¥2	¥2>	¥2>	¥2	¥2

Transport / Additional Information: No special provisions for hazardous substances in certain classes packaged in limited quantities as required by the transport regulations. Please note the regulations regarding the release / spillage of small quantities.

15. REGULATORY INFORMATION

National and international regulations must be complied with .

Refer to section 2 of this document for labeling information.

16. OTHER INFORMATION

16.1 Relevant H- and EUH-phrases (number and full text):

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.

Skin İrr.Skin IrritationEye Dam.Eye damageSkin Sens.Skin Sensitivity



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16.2 Additional Info

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfil his obligations regarding the use of hazardous products. This information is not exhaustive. This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist. This is solely his responsibility.



EPODOL – COMPONENT B

Revision Date: 01.06.2016 Revision No:02

1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Name: Epodol Component B
Intended Use: Epoxy based repair mortar

1.2. Details of the supplier of the safety data sheet

Supplier Name: Entegre Harç San ve Tic. A. Ş.

Adress: Hüseyinli Köyü Beykoz Cad. No:222/4 34799 Çekmeköy / İstanbul

Phone: + 90 216 434 50 96 **Fax:** + 90 216 434 63 89

E-Mail: <u>info@entegreharc.com.tr</u>

1.3. Emergency Phone Number

Company Number + 90 216 434 50 96

2. HAZARD IDENTIFICATION

2.1. Classification of the subtance or mixture

2.1.1. Hazard Classes and Categories

Skin Irr. 1B - H314

Reprov. Sys. Tox. 2 – H361fd

Skin Sens. 1 – H317

Acute Tox. 4 - H302+H312+H332

Aquatic Chronic 1 – H410

2.1.2. Hazard Phrases

H302 Harmful if swallowed

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled

H361fd Suspected of damaging fertility or the unborn child

H410 Very toxic to aquatic life with long lasting effects

2.1.3. Warning Phrases

P102 Keep out of reach of children.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.



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P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P302+P352 IF ON SKIN: Wash with soap and water

P317 May cause an allergic skin reaction.

P501 Dispose of contents / container in accordance with regulations.

2.2. Label Elements

2.2.1. Pictogram



2.2.2. Signal Word

Danger

2.2.3. Hazardous Ingredients For Labeling

Benzyl alcohol and Nonyl phenol

2.3. Other Hazards

All of the threads with the hazard statements are given in Section 16.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Materials

Substance or Compound	Einecs No	Cas No	Concent %	Classification
Benzyl alcohol	202-859-9	100-51-6	25 - 50	Acute Tox. 4 - H302/332
				Skin Irr. 1B -H314
3-aminomethyl-3,5,5- trimethylcyclohexylamine	220-666-8	2855-13-2	25 - 50	Skin Sens. 1, H317
				Acute Tox. 4 - H302/H312
				Aquatic Chronic 3-H412
m-xylenediamine	216-032-5	1477-55-0	< 20	Skin Irr. 1B -H314
				Skin Sens. 1,H317
				Acute tox.4-H302+332
Nonyl phenol		25154-52-3 < 5 Ac Sk Ac		Reprov. Sys. Tox. 2- H361fd
			Acute tox.4*, H302	
	246-672-0		\ 3	Skin Irr. 1B, H314
				Aquatic Acute 1, H400
				Aquatic Chronic 1, H410



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* See section 16 for the whole of this section of the H-phrases

4. FIRST AID MEASURES

4.1. General Recommendations

Consult a physician. Show this safety data sheet to the physician.

4.2. Inhalation

This product is not classified as dangerous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

4.3. Eye Contact

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes.

If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

4.4. Skin Contact

This product is not classified as dangerous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

4.5. Ingestion

Do not induce vomiting, but if it does happen keep the head up to avoid inhalation. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

5. FIREFIGHTING MEASURES

5.1 General Information

The product is not spontaneously flammable show feature.

5.2. Suitable Extinguishing Media

Use sand, alcohol-resistant foam, dry chemical, carbon dioxide (CO_2) or water-spray.

5.3. Special hazards arising from the substance or mixture

Burning creates black and dense smoke. CO gas is formed. It should also be taken into account that during the fire other toxic gases (such as HCl) may occur. Avoid breathing fumes; Exposure to degradation products poses a danger to health. Do not allow extinguishing liquids to enter drains or water courses.



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5.4. Advice forfirefighting

In case of fire, wear suitable respiratory equipment with positive air supply. Minimum emergency facilities and equipment should be available.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions,

Personal protective equipments are used.

6.2. Environmental precautions

Prevent leaks and spills. Do not discharge into the drains. Discharge into the environment must be avoided.

6.3. Methodes for celaning up

Absorb the liquid binder with dust (sand, diatomite, acid binders, universal binders, sawdust). Collect in the appropriate container for large quantities of debris. If not used, dispose of it. Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with eyes and skin.

Use only in well-ventilated areas. Do not eat or drink at the work place. Avoid contact with skin and eyes. Do not breathe vapors and aerosols. Use impermeable gloves, glasses, plastic apron, face shield, hat, boots.

7.2. Storage

Store the product in a dry, cool and well-ventilated place away from direct sunlight.

Always keep containers tightly closed. Do not smoke.

Containers should be carefully closed again and kept upright to prevent leakage of the product.

Non-authorized persons should be prohibited from entering the storage zone.

Keep these places adequately ventilated.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure Limits

STEL / TWA: Not detected



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8.2. Personal Protective Equipment

Foodstuffs, Keep away from drink and animal feed. Contaminated, remove immediately all contaminated clothing, reuse of wash. Wash your hands after work and the work of breaks. Gloves must be inspected regularly and prior to each use.

Respiratory -related precautionary measures

In cases where ventilation is insufficient to use respiratory protective equipment should be considered.

Hand protection

Gloves should be selected in accordance with a standard pharmaceutically acceptable carrier.

Eye protection

Use chemical safety glasses with side shields

Body protection

Wear protective clothing such as overalls, PVC aprons and boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Viscous Liquid

Colour: Black

<u>Odour:</u> Weak Amine
<u>Flammability:</u> Not applicable
<u>Solubility in water:</u> Insoluble in water
<u>Specific gravity (20 °C):</u> 1,38 – 1,50 g/m³

pH (20 °C): ~ 11

10. STABILITY AND REACTIVITY

10.1. Stability

Stable at ambient temperature and under normal conditions of use.

10.2. Hazardous Reactions

If it is used in accordance with the technical specifications, there is no deterioration.

Keep away from strong acids and alkalis from oxidizing agents to avoid exothermic reactions.

10.3. Hazardous Decomposition Products

If the product is exposed to high temperatures, the product may form hazardous components such as carbon monoxide and dioxide, smoke, nitric oxide.



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11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

Benzyl alcohol;

· LD50 (Oral): 1610 mg / kg (Rat)

· LD50 (Dermal): 2000 mg / kg (Rat)

· LD50 (Inhalation, 4 h):> 1000 mg / I (Rat)

İzophorondia amine;

· LD50 (Oral): 1030 mg / kg (Rat)

· LD50 (Dermal): 1840 mg / kg (Rabbit)

m-xylylenediamine;

· LD50 (Oral): 1040 mg / kg (Rat)

· LD50 (Inhalation, 4 h): 2400 mg / I (Rat)

11.2. Information on toxic effects

The product is not subject to classification according to the calculation method of the General AT Classification Guideline for Preparations as regulated in the latest version.

When used and used in accordance with specifications, the product has no harmful effects on the basis of our experience and the information provided to us.

No known sensitizing effect.

11.3. Effect on Health

In case of skin and eye contact: Irritating to skin and mucous membranes.

Sensitization possible in contact with skin

Eye irritant effect.

Ingestion: No information available Skin contact: May cause allergies

Eye contact: May cause serious eye irritation

No sensitivity studies were carried out on the mixture. According to the compositions, the mixture is not likely to cause sensitivity.

11.3. Additional Toxicological Warnings:

The product has not been tested. Toxicological classification was made based on content information and available information.



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12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity

Prevent the product from reaching water sources, sewage systems or sewage systems.

No ecological work is available. So far, no harmful effects on human and environment have been observed. When used as intended, does not have any environmental poisoning effect according to available information.

12.2 Persistence and Biodegradability

It is invalid.

The experimental information related to the eco-toxicological properties of the product itself is not available.

No data available

13. DISPOSAL CONSIDERATIONS

Product waste should be disposed of in closed containers or in containers, or disposed of in accordance with local regulations. Waste packagings shall be emptied in accordance with the procedure. Carefully discharged packages are construction sites or commercial waste.

14. TRANSPORT INFORMATION

	ADR	RID	ADNR	IMDG	IATA/ ICAO
Hazard Class	8	8	8	8	8
Packaging Group	III	III	III	III	III
UN No	UN 2735	UN 2735	UN 2735	UN 2735	UN 2735
Hazard Label	8	8	8	8	8
Transportation Name	AMINS, LIQUID, CORROSIVE B.B.B. 8 (III)				
Marine Pollutant	-	-	-	-	-

Transport / Additional Information: No special provisions for hazardous substances in certain classes packaged in limited quantities as required by the transport regulations. Please note the regulations regarding the release / spillage of small quantities.

15. REGULATORY INFORMATION

National and international regulations must be complied with .

Refer to section 2 of this document for labeling information.



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16. OTHER INFORMATION

16.1 Relevant H- and EUH-phrases (number and full text):

H302 Harmful if swallowed
H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled

H361fd Suspected of damaging fertility or the unborn child Very toxic to aquatic life with long lasting effects.

H410 Very toxic to aquatic life with long lasting effects

Skin İrr. Skin Irritation
Acute Tox. Acute Toxite
Eye Dam. Eye damage
Skin Sens. Skin Sensitivity

Reprov. Sys. Tox. Reproductive System Toxicity

16.2 Additional Info

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfil his obligations regarding the use of hazardous products. This information is not exhaustive. This does not exonerate the user from ensuring that legal obligations, other than those mentioned, relating to the use and storage of the product, do not exist. This is solely his responsibility.