

Name of Substance/Mixture:

TARDIGRADE EPST 110 Part A

Form No: 1851110

Print Date: 20/03/2017
Revision Date: 02/11/2018
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1. Identification of The Substance/Mixture and of The Company

1.1. Product identifier:

Product name: TARDIGRADE EPST 110 Part A

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

Used as a resin for coating systems.

1.3. Manufacturer/supplier

Company name: TARDIGRADE CONSTRUCTION CHEMICALS LLC.

Address: Osmangazi Mah. 2638. Sk. No: 4/3 Esenyurt/ISTANBUL

Telephone: +90 212 798 24 66

Fax: +90 212 798 24 67

E-mail: info@tardigrade.com.tr

1.4. Emergency telephone number: 114 (NATIONAL POISON CENTER-TURKEY)

2. Hazards Identification

2.1. Classification of the substance or mixture:

Physical hazards

Not applicable

Human health hazards

Skin Irrit. 2; H 315

Skin Sens. 1; H 317

Eye Irrit. 2; H 319

Environmental hazards

Aquatic Chronic 2; H 411

2.2. Label elements:

GHS pictograms:



GHS 07



GHS 09

Signal words:

Warning

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Hazard statement code(s)

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.

Precautionary statement code(s)

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P273: Avoid release to the environment.

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

P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.

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

P362: Take off contaminated clothing and wash before reuse.

2.3. Other hazards: Not applicable

3. Composition/Information On Ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Substance/Ingredient	Cas No	EC No	Concentration (%)	Classification
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	25068-38-6	500-033-5	≥70 - <80	Eye Irrit. 2 H319 Skin Irrit. 2 H315 Skin Sens. 1 H317 Aquatic Chronic 2 H411
oxirane, mono[(C12-14- alkyloxy)methyl] derivs.	68609-97-2	271-846-8	≥12 - <18	Skin Irrit. 2 H315 Skin Sens. 1 H317
benzyl alcohol	100-51-6	202-859-9	≥2 - <3	Acute Tox. 4 * H332 Acute Tox. 4 * H302

4. First Aid Measures

Inhalation Move exposed person to fresh air, get medical attention.

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Skin contact: Flush contaminated skin with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact: Immediately flush eyes with plenty of water. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

Ingestion: Do not induce vomiting, get medical attention immediately!

Notes to physician: No specific treatment. Treat symptomatically.

5. Firefighting Measures

5.1. General informations

The product does not have spontaneously flammable properties.

5.2. Extinguishing media

Suitable extinguishing media

Carbon dioxide, extinguishing powder, water spray. Use water spray for large fires

Unsuitable extinguishing media

Do not use water without water spray.

5.3. Special hazards created by the burning of the substance

Burning may produce toxic gases.

5.4. Special protective equipment

Use appropriate breathing apparatus.

Cool down the closed containers near the fire area.

Wear appropriate protective equipment and self-contained breathing apparatus.

5.5. Other information

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Avoid using too much fire extinguisher to pollute the environment.

The fire-fighting substances should not be allowed to reach sewage and groundwater.

6. Accidental Release Measures

6.1. Personal precautions/ personnel protection

Put on appropriate personal protective equipment. Keep away unprotected personnel. Follow personal protective measures described in Section 8.

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6.2. Environmental precautions

Improper discharging to environment may cause water and environment pollution. Avoid dispersal of spilled material runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product cause environmental pollution.

6.3. Cleaning / collection / disposal methods

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4. Reference to other sections

See Section 7 for information on safe handling. See Section 8 for personal protective equipments. See section 13 for disposal.

7. Handling and Storage

7.1. Precautions for safe handling

Preventive measures for safe handling of the substance / preparation:

Precautions for safe handling:

Industrial hygiene standards must be adhered in order to prevent ingestion, skin and eye contact during the use of chemicals. Workers should wash hands with water and soap after dealing with chemicals. Make sure to have good ventilation in work areas.

Smoking, eating and drinking should be prohibited in the application area.

Special rules for manual handling

Avoid direct contact with the substance.

Put on appropriate personal protective equipment. Use only with adequate ventilation.

Do not get in eyes or on skin or clothing.

Keep it away from fire and do not smoke near the substances.

Protection against fire and explosion

Extinguishing media should be ready to use. Keep away from heat sources.

Protect against electrostatic charging.

Additional information

Take necessary precautions to prevent damage to the original packaging.

Precautions for the environment:

No special precautions needed when used appropriately

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Avoid dispersal of spilled material runoff and contact with soil, waterways, drains and sewers.
Inform the relevant authorities if the product cause environmental pollution.

7.2. Conditions for safe storage, including any in compatibilities

Required properties in warehouse and packaging:

Keep container tightly closed and sealed.
Containers must be kept upright to prevent leakage.
Store in original container.
Smoking, eating and drinking should be prohibited.
The storage area should be dry, cool and well-ventilated.
Keep it away from direct sunlight and freezing temperatures.

Warnings about storage in common storage facility:

Keep away from strong acids, bases and oxidizing agents.
Keep away from food, drink and animal feeding areas.
Keep away from open fire sources, sparks and heat.
Follow the guidelines that are used to store chemicals.

Additional information on Storage Conditions:

Pay attention the information on the label.
Storage must cleaned regularly, and the ventilation system, temperature and humidity controls must be performed regularly.
Storage areas should be kept between 5 °C to 25 °C.
Store in original containers.

7.3. Specific end use(s)

Used as a resin for coating systems.

8. Exposure Controls/Personal Protection

8.1. Control parameters

There is no current occupational exposure information for products or components. Using the basic principles of industrial hygiene will ensure safe use of this material.

8.2. Exposure controls

Make sure that the personal protective equipment is used in accordance with the relevant regulations and instructions.

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8.2.1. Appropriate engineering controls

Make sure the area is well-ventilated and cleaned in order to avoid the risk of occupational exposure limit values. Areas should be designed to avoid contamination of the product. See section 7.

8.2.2. Personal protective equipment

General protection and hygiene measures

Only use in well ventilated areas.

Keep away from food, drink and animal feeding areas. Take dirty, contaminated clothes immediately. Wash hands, forearms and face thoroughly after handling chemical products. Avoid direct contact with eyes and skin. Do not eat any food items when using this material, do not drink. Do not smoke.

Respiratory related measures

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The use of respiratory protective equipment is not required under normal conditions.

Eye/face protection

Use safety eyewear.

Body protection

Use personal protective equipment for the body and boots.

Hand protection

Wear suitable protective gloves.

The glove material has to be impermeable and resistant against product.

Selection of the glove material:

The selection of the suitable gloves material is not only limited with its material, it also depends on its kind and quality vary from manufacturer to manufacturer. The resistance of the glove material can not be determined in advance, therefore, it should be tested by applying the product.

Penetration time of the glove material:

It should be tested and determined by the glove manufacturer.

8.2.3. Environmental exposure controls

Obligations for the protection of the environment must be fulfilled.

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9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance (atmospheric temperature):	Liquid
Colour:	Transparent
Odor:	Characteristic / Light
Odor threshold:	No data available
pH (@20 °C)	No data available
Boiling point/boiling range(°C) (@760 mmHg):	>200
Flash point(°C) (PM Closed Cup):	>100
Flammability temperature (°C) (Solid/Gas):	No data available
Explosive properties:	No explosive property
Oxidation properties :	No data available
Density (g/cm ³):	1,34 ± 0,5
Viscosity (cps) (@25 °C) :	1200 - 1400
Vapor pressure (@20 °C):	No data available
Solubility in water (g/l) (@20 °C):	Insoluble
Autoignition temperature (°C):	No data available
Melting point /freezing point (°C) (@760 mmHg):	No data available
Log Pow (distribution coefficient):	No data available
Relative vapor density:	No data available
Decomposition temperature:	No data available
Evaporation rate:	No data available

9.2. Other information

Not applicable

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10.Stability and Reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable when stored and handled as recommended.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

(Under the conditions, which may cause a dangerous reaction, such as temperature, pressure, light, shock (impact), that should be avoided): No data available

10.5. Incompatible materials

(Water, air, acids, bases, oxidizing agents or with any other specific substance which may cause a dangerous reaction.): Keep away from acids, bases, amines and oxidizing agents.

10.6. Hazardous decomposition products

Possibility of converting into unstable products by decaying: No data available

The need for stabilizers and the presence of stabilizers: Stable when stored and handled as recommended.

Possibility of hazardous exothermic reaction: No data available

The importance of changes in the physical appearance for safety: No data available

Any hazardous decomposition products will be formed in contact with water : No data available

Hazardous decomposition products : Carbon monoxide and carbon dioxide.

Hazardous polymerization products: No data available

11.Toxicological Information

11.1. Information on toxicological effects

Primary exposure under normal use, takes place by contact with skin and eyes.

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11.2. Acute toxicity

Substance or Compound [CAS#]	Content (%)	LD50 (Oral)	LD50 (Dermal)	LC50 (Inhalation)
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)CAS#25068-38-6]	≥70 - <80	>5000 mg/kg (rat)	20000 mg/kg (rabbit)	-
oxirane, mono[(C12-14- alkyloxy)methyl] derivs. [CAS#68609-97-2]	≥12 - <18	26800 mg/kg (rat)	-	0,206 mg/l 4 hours (rat)
benzyl alcohol [CAS#100-51-6]	≥2 - <3	1040 mg/kg (rabbit)	2000 mg/kg (rabbit)	-

11.3. Corrosivity and irritation effect (corrosion and irritation)

Eyes: Causes serious eye irritation.

Skin: Irritant to skin and mucous membrane.

11.4. Chronic toxicity (carcinogenic, mutagenic and reproductive toxicity)

Carcinogenic effects : There is no information about the carcinogenic substance content.

Mutagenic effect : There is no information about the ingredients that create adverse mutagenic effects

Reproductive toxicity : There is no information about the toxic contents of reproduction.

11.5. Other toxicological effects

Allergic effects: May cause an allergic skin reaction.

Effects of repeated dose: There is no information.

Stun impact: There is no information

Sensitivity creation (sensitization): May cause an allergic skin reaction.

Developmental toxicological effects (teratogenic effect): There is no information

Fertility: There is no information

11.6. Impacts on health

Eyes: Causes serious eye irritation.

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Skin: Irritant to skin and mucous membrane.

Inhalation : There is no information about the formation of intoxication after inhalation, however inhalation of chemicals is harmful to health.

Ingestion : There is no information about the formation of intoxication after ingestion, however, ingestion of chemicals is harmful to health.

Target organs: There is no information

Medical symptoms: There is no information

Medical warnings : There is no information

11.7. Additional toxicological information

Toxicological content classification information is made based on the current information available.

12. Ecological Information

12.1. Ecotoxicity:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The information in this section pertains to the ecotoxicity of components and similar substances.

12.1.1. Acute toxicity

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

- Acute fish toxicity (LC50 96 hours) : No information
- Acute toxicity daphnia (EC50) : 1,8 mg/kg
- Acute toxicity to algae (IC50 72 hours) : No information

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

- Acute fish toxicity (LC50 96 hours) : >100 mg/l
- Acute toxicity daphnia (EC50) : No information
- Acute toxicity to algae (EC50 72 hours) : 843 mg/l

benzyl alcohol

- Acute fish toxicity (LC50 96 hours) : 460 mg/l
- Acute toxicity daphnia (EC50) : No information
- Acute toxicity to algae (IC50 72 hours) : No information

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12.2. Persistence and degradability:

Biodegradation potential in relevant environmental media : No information
Hydrolysis or oxidation as other transactions with potential degradability : No information
Regarding half-life of degradation : No information
Impact on waste water treatment plant : There is no known effect on wastewater treatment plants

12.3. Bioaccumulation potential:

Accumulation potential of the product in the biological environment : No information
Potential to pass through the food product : No information
Log Pow or BCF value : No information

12.4. Mobility :

Liquid.
Insoluble
In determining environmental mobility, consider the product's physical and chemical properties (See Section 9)

Water hazard class : No information
Effects of drinking water : No information
Environmental known or predicted distribution : No information

12.5. Results of PBT and vPvB assessment : No information

12.6. Other adverse effects:

Ozone depletion (decrease) potential : No information
Photochemical ozone production potential : No information
Global warming (greenhouse effect) potential : No information
Other adverse effects on environment : No information

12.7. Additional information:

Avoid dispersal of spilled material runoff and contact with soil, waterways, drains and sewers.
Please see sections 6, 7, 13, 14 and 15 for information regarding measures against accidental spills, the shipping and disposal of waste materials.

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13. Disposal Considerations

13.1. Waste treatment methods

- Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
- Disposal of this product, solutions and any byproducts 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.
- Products should be disposed of in accordance with official regulations.
- Do not allow the product to be disposed of with household waste.
- Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution.
- Uncleaned packagings are recommended to be disposed of in accordance with official regulations.
- Deliver to professional waste disposal service institutions.
- Refer to national and international legislation on waste.
- Do not dispose it without checking the waste regulations of the product.
- Please refer to Chapter 7 for safe handling methods.

14. Transport Information



Highway transportation (ADR/RID):

UN no: UN 3082

Name and description: UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

Transport hazard class(es): 9

Packing group: III

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Additional information

Hazard identification no: 90

Marine transportation (IMDG):

UN no: UN 3082

Name and description: UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

Transport hazard class(es): 9

Packing group: III

Environmental hazards: DANGEROUS FOR THE ENVIRONMENT.MARINE POLLUTANT: YES

Airline transportation (ICA/IATA):

UN no: UN 3082

Name and description: UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.

Transport hazard class(es): 9

Packing group: III

Special precautions for user: No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: No data available

15.Regulatory Information

15.1. Private safety, health and environment legislation for substance or mixture;

If any other regulatory information applies which is not provided elsewhere in this safety data sheet, then it is described in this subsection.

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16. Other Information

- **Revision:** This SDS has been updated according to the Regulation (EC) No. 1907/2006. The section changes are determined by thick lines in the left margin throughout the document.
- **Abbreviations:**
 - **CAS NO:** The number given by the Chemical Theory Service.
 - **EC NO:** The number given by the European Commission according to the structural nature of the substance.
 - **LD50:** The average lethal dose of a toxic substance or radiation (abbreviation for "50% Lethal dose").
 - **LC50:** The average lethal concentration of a toxic substance or radiation (abbreviation for "50% Lethal concentration").
 - **EC50:** It is the half of the concentration that the chemical used is most effective.
 - **IC50:** It is the half-value of the concentration that will give the complete inhibition of the substance known to be the inhibitory agent.
 - **BCF:** Bioaccumulation factor.
 - **PBT:** Persistent, bioaccumulative and toxic.
 - **vPvB:** Very persistent and very bioaccumulative.
 - **ADR:** European Agreement on International Carriage of Dangerous Goods by Road
 - **RID:** Implementing Regulation on International Transport of Dangerous Goods by Railway
 - **IMDG:** The International Maritime Dangerous Load Code, prepared by the International Maritime Organization (IMO) subcommittee, includes notification and handling procedures for hazardous cargo categorized in 9th grade.
 - **ICA/IATA:** Arrangements for Transport of Dangerous Goods by Air
 - **ECHA:** European Chemicals Agency
 - **EU:** European union
- **Key information sources:**
 - Safety Data Sheet prepared by TARDIGRADE CONSTRUCTION CHEMICALS LLC.
 - Regulation and Annexes on Health and Safety Precautions in Working with Chemical Substances
 - Personal Protective Equipment Regulation and Annexes
 - Regulation and Annexes on the Classification, Labeling and Packaging of Matter and Mixtures

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- Regulation and Annexes on Safety Data Sheets for Hazardous Substances and Mixtures
- Regulation and Annexes on the Transport of Dangerous Goods by Road
- Regulation on the Control of Hazardous Wastes
- Manual Handling Regulations and Annexes
- Regulation and Annexes on Restrictions on the Production, Usage and Use of Certain Hazardous Materials, Preparations and Products
- Regulation on Occupational Health and Safety
- Regulation and Annexes on health and safety precautions when working with carcinogenic or mutagenic substances
- UN ADR, IMDG, IATA lists, ECHA and related EU directives

➤ **Hazard statements :**

H332: Harmful if inhaled.

H302: Harmful if swallowed.

➤ **Prepared by**

Name and surname: Esra BEKTAŞ

Contact information: info@tardigrade.com.tr

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