

**SAFETY DATA SHEET**  
**tEPON-812 EPOXY RESIN**

**CATALOG #3131**

**1. IDENTIFICATION**

**Product Identifier**

Trade name: **EMBED 812 RESIN**

Article number: 14900, 14901

**Relevant identified uses of the substance or mixture and uses advised against**  
No further information available.

**Application of the substance / the mixture:** Laboratory chemicals

**COMPANY IDENTIFICATION**

TOUSIMIS RESEARCH CORP.  
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**Company Contact Information:**

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**EMERGENCY TELEPHONE NUMBER**

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**2. HAZARDS IDENTIFICATION**

**Classification of the substance or mixture**

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

Irritant

Irritating to eyes and skin. May cause sensitization by skin contact.

Dangerous for the environment

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Information concerning particular hazards for human and environment:**

The product has to be labeled due to the calculation procedure of international guidelines.

**Classification system:**

The classification was made according to the latest editions of international substances lists and expanded upon from company and literature data.

## Label elements

### Labelling according to EU guidelines:

The product has been classified and marked in accordance with directives on hazardous materials.

### Code letter and hazard designation of product:

Irritant

Dangerous for the environment

### Hazardous-determining components of labeling:

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

### Risk phrases:

Irritating to eyes and skin.

May cause sensitisation by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in aquatic environment.

### Safety phrases:

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

Avoid contact with skin.

Wear suitable gloves and eye/face protection.

Use appropriate container to avoid environmental contamination.

### Special labeling of certain preparations:

Contains epoxy constituents. See information supplied by the manufacturer.

### Classification system:

#### NFPA ratings (scale 0-4)

Health = 3

Fire = 1

Reactivity = 0

#### HMIS-ratings (scale 0-4)

Health = 3

Fire = 1

Reactivity = 0

### Other hazards

#### Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical characterization: Mixtures

**Description:** Mixture of the substances listed below with nonhazardous additions.

### Dangerous components:

25068-38-6

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

## 4. FIRST AID MEASURES

### Description of first aid measures

#### If inhaled

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

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

#### In case of skin contact

Immediately wash with water and soap and rinse thoroughly.

#### In case of eye contact

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

#### If swallowed

If symptoms persist, consult doctor.

### Information for doctor:

#### Most important symptoms and effects, both acute and delayed

No further relevant information available.

#### Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## 5. FIREFIGHTING MEASURES

### Extinguishing media

**Suitable extinguishing agents** Use firefighting measures that suit the environment.

### Special hazards arising from the substance or mixture

No further relevant information available.

### Advice for firefighters

No special measures required.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Not required

### Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewer/surface or ground water.

### **Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

### **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.

## **7. HANDLING AND STORAGE**

### **Handling:**

#### **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**Information about protection against explosions and fires:** No special measures required.

### **Conditions for safe storage, including any incompatibilities**

#### **Storage:**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

**Specific end use(s):** No further relevant information available.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Additional information about design of technical system:** No further data; see item 7.

### **Control parameters**

#### **Components 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.

**Additional information:** The lists that were valid during the creation were used as basis.

### **Exposure controls**

#### **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.

**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

**Protection of hands:**

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

**Material of gloves**

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 preparation of several substances, the resistance of the glove material cannot 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.

**Eye protection:**

Tightly sealed goggles

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Information on basic physical and chemical properties****Appearance**

<b>Form</b>	Viscous
<b>Color</b>	Light yellow
<b>Smell</b>	Characteristic
<b>Odor Threshold</b>	Not determined
<b>pH</b>	Not determined
<b>Change in condition</b>	
<b>Melting point/range</b>	Undetermined
<b>Boiling point/range</b>	> 171°C (>340°F)
<b>Flash point</b>	138°C (280°F)
<b>Flammability (solid, gas)</b>	Not flammable
<b>Ignition temperature</b>	
<b>Decomposition temperature</b>	Not determined
<b>Auto-igniting</b>	Product is not selfigniting.
<b>Danger of explosion</b>	Product does not present an explosion hazard
<b>Explosion limits</b>	

<b>Lower</b>	Not determined
<b>Upper</b>	Not determined
<b>Vapour pressure at 20°C (68°F)</b>	23 hPa (17 mm Hg)
<b>Density</b>	Not determined
<b>Relative density</b>	Not determined
<b>Vapour density</b>	Not determined
<b>Evaporation rate</b>	Not determined
<b>Solubility in Miscibility with water</b>	Not miscible or difficult to mix
<b>Partition coefficient (n-octanol/water)</b>	Not determined
<b>Viscosity</b>	
<b>Dynamic</b>	Not determined
<b>Kinematic</b>	Not determined
<b>Solvent content</b>	
<b>Organic solvents</b>	0.0%
<b>Water</b>	40.0%
<b>Other information</b>	No further relevant information available.

## 10. STABILITY AND REACTIVITY

**Reactivity:** No further relevant information available.

### Chemical stability

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Possibility of hazardous reactions:** No dangerous reactions known.

**Conditions to avoid:** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:** No dangerous decomposition products known.

## 11. TOXICOLOGICAL INFORMATION

### Information on toxicological effects

#### Acute toxicity

#### Primary irritant effect:

**On the skin:** Irritant to skin and mucous membranes

**On the eye:** Irritating effect

**Sensitization:** Sensitization possible through skin contact.

#### Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

#### Carcinogenic categories

#### IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

#### NTP (National Toxicology Program)

None of the ingredients is listed.

#### OSHA-Ca (Occupational Safety Health Administration)

None of the ingredients is listed.

## 12. ECOLOGICAL INFORMATION

### Toxicity

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability:** No further relevant information available.

#### Behavior in environmental systems

**Bioaccumulative potential** No further relevant information available.

**Mobility in soil** No further relevant information available.

#### Ecotoxicological effects

**Remark** Toxic for fish

## Additional ecological information

### General notes

Water hazard class 2 (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms

### Results of PBT and vPvB assessment

**PBT** Not applicable

**vPvB** Not applicable

**Other adverse effects** No further relevant information available.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### Recommendation:

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

#### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

### UN-Number

<b>DOT</b>	Void
<b>ADR, IMDG, IATA</b>	UN3082

### UN proper shipping name

<b>DOT</b>	Void
<b>ADR</b>	3082 Environmentally hazardous substances, 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))



## Transport hazard class(es)

### DOT

Class Void

### ADR, IMDG, IATA

Class 9 Miscellaneous dangerous substances and articles

Label 9

### Packing group

DOT Void

ADR, IMDG, IATA III

### Environmental hazardous

Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ )

Marine pollutant Yes

Special marking (ADR) Symbol (fish and tree)

Special marking (IATA) Symbol (fish and tree)

### Special precautions for user

Warning: Miscellaneous dangerous substances and articles

Danger code (Kemler) 90

EMS Number F-A, S-F

### Transport in bulk according to Annex II MARPOL73/78 and the IBC Code

Not applicable.

### Transport/Additional information:

#### ADR

#### Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

#### 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 SUBSTANCES, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT  $\leq 700$ )), 9, III

## 15. REGULATORY INFORMATION

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

Sara

**Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

**Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

**TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**Proposition 65**

**Chemicals known to cause cancer:**

None of the ingredients is listed

**Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**Chemical known to cause developmental toxicity:**

None of the ingredients is listed.

**Carcinogenic categories**

**EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**GHL label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS)

**Hazard Pictograms**



GHS07

**Signal word** Warning

**Hazard statement(s)**

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

**Precautionary statement(s)**

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

Wear eye protection / face protection

Wash thoroughly after handling

Contaminated work clothing must not be allowed out of the workplace.

If in eyes: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Wash contaminated clothing before reuse.

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

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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

## 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.

### 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

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety and Health Administration (USA)

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A  
Skin Sens. 1: Sensitisation – Skin, Hazard Category 1