

# Material Safety Data Sheet

## 1. Chemical Product and Company Identification

가. Trade Name	JP-100D(Resin)
General Use	Epoxy Primer
Manufacturer	Jeil Chemical Co., Ltd. 38-16. Hoehak 3-gil, Onsan-Eup, Ulju-Gun, Ulsan, South Korea 052-227-5003

## 2. Hazards Identification

a. Hazards Classification and Statements	Acute. Tox. : Category 4 Skin Irrit. : Category 2 Eye Irrit. : Category 2 Skin Sens. : Category 1 Carcinogenicity : Category1A STOT Rep. : Category 1 Aquatic Chronic : Category 2 Carcinogenicity : Category1B
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### b. Hazards Description:

Pictogram



Signal word

DANGER

Hazards Classification and Statements

H302 Harmful if swallowed  
H315 Causes skin irritation  
H319 Cause serious eye irritation  
H317 May cause allergic skin reaction  
H411 Toxic to aquatic life with long lasting effects

Prevention precautionary statements

P264 Wash ... thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P273 Avoid release to the environment.

Response precautionary statements

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 Rinse mouth.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P321 Specific treatment (see ... on this label).  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362 Take off contaminated clothing and wash before reuse.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for seven minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P363 Wash contaminated clothing before reuse.

Storage precautionary statements

P391 Collect spillage.

Disposal precautionary statements:

P405 Store locked up  
P501 Dispose of contents/container in accordance with local/regional/national/international regulation (to be specified).

C. Other Hazard-Risk which are not included in the classification criteria

2-Ethoxy Ethanol

Health hazard	1
Fire	2
Reactivity Hazard	0

Xylene

Health hazard	No Data
Fire	No Data
Reactivity Hazard	No Data

BISPHENOL A-EPICHLOROXYDRIN RESIN

Health hazard	2
Fire	1
Reactivity Hazard	0

Polypropylene glycol

Health hazard	1
Fire	1
Reactivity Hazard	0

Extract Residues (Coal), Tar Oil Alk., Carbonated, Limed; Crude Phenols; [The Product Obtained By Treatment Of Coal Tar Oil Alkaline Extract With Co2 And Cao. Composed Primarily Of Caco3, Ca(OH)2, Na2Co3 And Other Organic And Inorganic Impurities.]

Health hazard	No Data
Fire	No Data
Reactivity Hazard	No Data

3. COMPOSITION/INFORMATION ON INGREDIENTS

	Component	CAS NO.	Amount(%)
2-Ethoxy Ethanol	B-Ethoxy Ethanol	110-80-5	5~7
Xylene	Dimethylbenzene	1330-20-7	10~15
BISPHENOL A-EPICHLOROXYDRIN RESIN	BISPHENOL A-EPICHLOROXYDRIN RESIN	25068-38-6	35~40
Polypropylene glycol	Polyoxypropylene glycol	25322-69-4	15~20
Extract Residues (Coal), Tar Oil Alk., Carbonated, Limed; Crude Phenols; [The Product Obtained By Treatment Of Coal Tar Oil Alkaline Extract With Co2 And Cao. Composed Primarily Of Caco3, Ca(OH)2, Na2Co3 And Other Organic And Inorganic Impurities.]		90641-06-8	20~25

4. First aid measures

- a. Eye contact: Flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Consult a physician if signs of irritation appear.
- b. Skin contact: Immediately remove contaminated clothing or shoes, wash skin with plenty of water for at least 15 minutes. Use soap if readily available, or follow by thoroughly washing soap and water. Do not reuse clothing until thoroughly decontaminated.
- c. Inhalation: Move person to fresh air area and provide oxygen if breathing is difficult. Consult a physician if effects.
- d. Ingestion: Do not induce vomiting because of risk of aspiration. Rinse mouth with water. Consult a physician if necessary.

5. Fire fighting measures

Hazardous products of Combustion	In case of fire, toxic fumes might be formed
Extinguishing media	Water spray, foam, dry chemical, or carbon dioxide
Unusual fire or explosion Hazards	May produce hazardous fumes of hazardous decomposition products
	When fire fighting, wear full protective equipment including self-contained breathing apparatus

6. Accidental release measures

Personal precautions	Put on adequate protective equipment. See section 8, Exposure control/ Personal Protection
Environmental precautions	Keep away from drains, surface-water, ground water and soil.
Clean-up Method	Sweep spilled material into non-leaking containers. All disposal methods must be in compliance with applicable local regulations.

## 7. Handling and storage

- |             |  |
|-------------|--|
| a. Storage  | Keep away from: acids, alkalis, oxidizers. Keep in cool, dry, ventilate storage and in closed containers. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Avoid freezing temperatures during storage. Do not store in reactive metal containers. Product may partially freeze with extended exposure to cold temperatures.  |
| b. Handling | When handling, do not eat, drink, or smoke. Avoid contact with eyes. Avoid contact with skin. Spraying increases the risk of hazardous exposure. In atmospheres where the material is sprayed, workers should avoid contact with aerosols containing S through proper engineering controls, such as exhaust ventilation. Wear goggles and face shield. Do not get into the eyes. Other individuals working in the vicinity of the product where exposure can occur should also be fitted with chemical splash goggles. Contaminated clothing should be properly disposed of in a manner that will not cause additional exposure. Workers should be strongly encouraged to follow good personal hygiene practices, such as thorough washing of hands, arms, neck and face following working with JP-100D. |

## 8. Exposure controls/personal protection

- |   |  |
|---|--|
| a. Exposure Limits  |  |
| National regulations  |  |
| 2-Ethoxy Ethanol  | TWA – 5ppm 19mg/m3   |
| Xylene  | TWA – 100ppm 435mg/m3 STEL – 150ppm 655mg/m3   |
| BISPHENOL A-EPICHLOROHYDRIN RESIN   | No Data  |
| Polypropylene Glycol  | No Data  |
| Extract Residues (Coal), Tar Oil Alk., Carbonated, Limed; Crude Phenols: [The ACGIH regulations | No Data  |
| 2-Ethoxy Ethanol  | TWA 5 ppm  |
| Xylene  | TWA 100 ppm  |
| BISPHENOL A-EPICHLOROHYDRIN RESIN   | No Data  |
| Polypropylene Glycol  | No Data  |
| Extract Residues (Coal), Tar Oil Alk., Biological exposure limits                               | No Data  |
| b. Suitable Engineering Management  | Use process isolation, local ventilation or other engineering management to maintain air Set wash up facilities and safe shower system, where storage or use of this material. |
| c. Personal protector   |  |
| Eye protection  | Safety glasses with side shields.  |
| Hands protection  | Chemical resistant gloves.   |
| Skin and body protection  | Chemical resistant protective suit. Chemicals resistant boots.   |
| Respiratory protection  | Never exceed the national Occupational Exposure Limit. Use local. Exhaust ventilation  |

## 9. Physical and chemical properties

- |                    |         |
|--------------------|---------|
| 1. Appearance      |         |
| Type               | Liquid  |
| Color              | Green   |
| 2. Odor            | No Data |
| 3. Odour threshold | No Data |
| 4. pH              | No Data |

5. Melting Point/Freezing Point	No Data
6. Boiling Point	No Data
7. Flash Point	No Data
8. Evaporation Rate	No Data
9. Flammability	No Data
10. Flammable Limits	No Data
11. Vapor Pressure	No Data
12. Solubility in WATER	No Data
13. Vapor density(water=1)	No Data
14. Density	1.27~1.28
15. n-Octanol/Water Partition coefficient	No Data
16. Autoignition Temperature	No Data
17. Decomposition Temperature	No Data
18. Viscosity(at 25°C)	1,500~2,000 cps(at 25°C)
19. Molecular Weight	No Data

### 10. Stability and reactivity

Conditions to avoid	Can react strongly with epoxy resins at elevated temperature
Materials to avoid	Acids, amines, bases, oxidizing agents
Hazardous reaction	Hazardous polymerization does not occur by itself
Decomposition temperature	Not available
Hazardous decomposition component	Hazardous decomposition products are not expected to form during normal storage

### 11. Toxicological information

#### a. Information on the likely routes of exposure

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

#### b. Acute Toxicity Data

##### Acute toxic

##### Oral

2-Ethoxy Ethanol	LD50 2125 mg/kg Rat
Xylene	LD50 3500 mg/kg Rat
BISPHENOL A-EPICHLOROHYDRIN RESIN	LD50 > 1000 mg/kg Rat
Polypropylene Glycol	LD50 > 2000 mg/kg Rat
Extract Residues (Coal), Tar Oil Alk., Carbonated, Limed; Crude Phenols: [The Dermal	No Data
2-Ethoxy Ethanol	LD50 3300 mg/kg Rabbit
Xylene	LD50 ≥4350 mg/kg Rabbit
BISPHENOL A-EPICHLOROHYDRIN RESIN	LD50 > 20000 mg/kg Rabbit
Polypropylene Glycol	No Data
Extract Residues (Coal), Tar Oil Alk., Carbonated, Limed; Crude Phenols: [The Inhalation	No Data
2-Ethoxy Ethanol	LC50 16 mg/l 4 hr Rat
Xylene	LC50 6700 ppm 4 hr Rat
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Polypropylene Glycol	No Data

Extract Residues (Coal), Tar Oil Alk., Carbonated, Limed; Crude Phenols: [The

##### Skin Corrosion/Irritation

No Data

##### Serious Eye Damage/Irritation

No Data

##### Respiratory sensitization

No Data

	No Data
Skin sensitization	No Data
Carcinogenicity	No Data
IARC	No Data
OSHA	Group 1
ACGIH	No Data
NTP	A4
EU CLP	No Data
Germ Cell Mutagenicity	No Data
Reproductive toxicity	No Data
Specific target organ toxicity (single exposure):	No Data
Specific target organ toxicity (repeated exposure):	No Data
Aspiration hazard	No Data

## 12. Environmental information

### a. Aquatic and terrestrial ecotoxicity

#### Fish toxicity (Acute)

2-Ethoxy Ethanol	No Data
Xylene	LC50 3.3 mg/l 96 hr
BISPHENOL A-EPICHLOROHYDRIN RESIN	LC50 1.41 mg/l 96 hr Oryzias latipes
Polypropylene Glycol	LC50 1700 mg/l 96 hr Lepomis macrochirus
Extract Residues (Coal), Tar Oil Alk., Carbonated, Limed; Crude Phenols; [The Product Obtained By Treatment Of Coal Tar Oil Alkaline Extract With Co2 And Cao. Composed Primarily Of Caco3, Ca(Oh)2, Na2Co3 And Other Organic And Inorganic	No Data

#### Water flea toxicity (Acute)

2-Ethoxy Ethanol	LC50 90 mg/l 48 hr
Xylene	LC50 190 mg/l 96 hr
BISPHENOL A-EPICHLOROHYDRIN RESIN	EC50 1.7 mg/l 48 hr
Polypropylene Glycol	No Data
Extract Residues (Coal), Tar Oil Alk., Carbonated, Limed; Crude Phenols; [The Product Obtained By Treatment Of Coal Tar Oil Alkaline Extract With Co2 And Cao. Composed Primarily Of Caco3, Ca(Oh)2, Na2Co3 And Other Organic And Inorganic	No Data

#### Birds growth hinderance test (Acute)

No Data

### b. Persistence and degradability

#### Persistence

log Kow 2.821

#### Degradability

No Data

### c. Bioaccumulative potential:

#### condenasability

2-Ethoxy Ethanol	No Data
Xylene	No Data

BISPHENOL A-EPICHLOROHYDRIN RESIN	BCF 0.56 ~ 0.67
Polypropylene Glycol	No Data
Extract Residues (Coal), Tar Oil Alk., biodegradability	No Data
2-Ethoxy Ethanol	No Data
Xylene	39 (%)
BISPHENOL A-EPICHLOROHYDRIN RESIN	0 (%) 28 day
Polypropylene Glycol	No Data
Extract Residues (Coal), Tar Oil Alk., d. Mobility in soil:	No Data
2-Ethoxy Ethanol	No Data
Xylene	log Kow = 3.2
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Polypropylene Glycol	No Data
Extract Residues (Coal), Tar Oil Alk., e. Other adverse effects	No Data
	No Data

### 13. Disposal considerations

Incineration is the recommended disposal method for all chemical wastes. Material collected on absorbent material may be disposed in a landfill in accordance with all applicable local, state and federal regulations

### 14. Transport information

a. UN No.	3082
b. Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
c. Transportation Class	3
d. Packing Group	2
e. Marine Pollutant	No Data
f. Special precautions for user	
fire emergency	F-A
spill Emergency	S-F

### 15. Regulation information

a. Industrial Safety and Health Act	No Data
b. Toxic Chemical Control Act	Toxic
c. Dangerous Material Safety Control Act	No Data
d. Wastes Management Act	Designated Waste
e. Other requirements in domestic and other countries	
National regulation	Not applicable
other countries regulation	
U.S.A(OSHA )	Not applicable
U.S.A(CERCLA)	

2-Ethoxy Ethanol	453.599 kg 1000 lb
Xylene	45.3599 kg 100 lb
BISPHENOL A-EPICHLOROHYDRIN RESIN	Not applicable
Polypropylene Glycol	Not applicable
Extract Residues (Coal), Tar Oil Alk., U.S.A(EPCRA 302 )	Not applicable
USA(EPCRA 304 )	Not applicable
EU	
2-Ethoxy Ethanol	R10Repr. Cat. 2; R60-61Xn; R20/21/22
Xylene	R10Xn; R20/21Xi; R38
BISPHENOL A-EPICHLOROHYDRIN RESIN	Xi; R36/38R43N; R51-53
Polypropylene Glycol	No Data
Extract Residues (Coal), Tar Oil Alk., EU	Carc.Cat.2: R45, Muta.Cat.2: R46
2-Ethoxy Ethanol	R60, R61, R10, R20/21/22
Xylene	R10, R20/21, R38
BISPHENOL A-EPICHLOROHYDRIN RESIN	R36/38, R43, R51/53
Polypropylene Glycol	No Data
Extract Residues (Coal), Tar Oil Alk., EU	R45, R46
2-Ethoxy Ethanol	S53, S45
Xylene	S2, S25
BISPHENOL A-EPICHLOROHYDRIN RESIN	S2, S28, S37/39, S61
Polypropylene Glycol	No Data
Extract Residues (Coal), Tar Oil Alk., EU	S:53-45

## 16. Other requirements in domestic and other countries

### a. Information source and references

#### BISPHENOL A-EPICHLOROHYDRIN RESIN

National Institute of Technology and Evaluation(NITE)([http://www.safe.nite.go.jp/ghs/h18\\_bunrui.html](http://www.safe.nite.go.jp/ghs/h18_bunrui.html))  
Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)  
Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)  
National Library of Medicine(NLM)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM>)  
Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)  
European chemical Substances Information System(ECB-ESIS)(<http://ecb.jrc.it/esis>)  
National Institute of Technology and Evaluation(NITE)([http://www.safe.nite.go.jp/ghs/h18\\_bunrui.html](http://www.safe.nite.go.jp/ghs/h18_bunrui.html))  
Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)  
National Institute of Technology and Evaluation(NITE)([http://www.safe.nite.go.jp/ghs/h18\\_bunrui.html](http://www.safe.nite.go.jp/ghs/h18_bunrui.html))  
European chemical Substances Information System(ECB-ESIS)(<http://ecb.jrc.it/esis>)  
National Library of Medicine/Chemical Carcinogenesis Research Information  
National Library of Medicine/genetic toxicology(NLM/GENETOX)(<http://toxnet.nlm.nih.gov/>)  
National Institute of Technology and Evaluation(NITE)([http://www.safe.nite.go.jp/ghs/h18\\_bunrui.html](http://www.safe.nite.go.jp/ghs/h18_bunrui.html))  
Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)

b. Issuing date 2014-06-28

### c. Revision number and date

Revision number -  
Date -

### d. Others