

# Material Safety Data Sheet

## 1. Chemical Product and Company Identification

Trade Name	JA-153CF(Resin)
General Use	Construction Flooring
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 STOT Rep. : Category 1 Aquatic Chronic : Category 2
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### b. Hazards Description:

Pictogram



Signal word	DANGER
Hazards Classification and Statements	H302 May be harmful if swallowed H315 Causes skin irritation H317 May cause an allergic skin reaction H319 Causes serious eye irritation H330 Very toxic to aquatic life H351 Very toxic to aquatic life with long lasting effects H360 May damage fertility or the unborn child H411 Toxic to aquatic life with long lasting effects
Prevention precautionary statements	P201 Obtain special instructions before use P202 Do not handle until all safety precautions have been read and understood P260 Do not breathe dust/fume/gas/mist/vapours/spray P261 Avoid breathing dust/fume/gas/mist/vapours/spray P264 Wash...thoroughly after handling P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wash...thoroughly after handling
Response precautionary statements	P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  P302+P352 IF ON SKIN (or hair): Wash with plenty of soap and 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. P307+P311 IF exposed: Call a POISON CENTER or doctor/physician. P308+P313 IF exposed or concerned: Get medical advice/attention. P314 Get medical advice/attention if you feel unwell. P321 Specific treatment (see ... on this label). P330 Rinse mouth. P332+P313 If skin irritation occurs: Get medical advice/attention. 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. P363 Wash contaminated clothing before reuse. P391 Collect spillage.
Storage precautionary statements	P405 Store locked up

Disposal precautionary statements: P501 Dispose of contents/container in accordance with local/regional/national/international regulation (to be specified).

Cf. Other harmful or danger characteristic (NFPA)

Health hazard	2
Fire	1
Reactivity Hazard	0

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS NO.	Amount(%)
BENZENEMETHANOL	100-51-6	5~10
BISPHENOL A-EPICHLOROHYDRIN RESIN	25068-38-6	70~80
Siloxanes and silicones	63148-53-8	0~2
Secret	-	10~20

### 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 occur.  |
| d. Ingestion    | Do not induce vomiting because of risk of aspiration. Rinse mouth with water. Consult a physician if effects occur.  |

### 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                       |
| Special fire fighting Procedures  | When fire fighting, wear full protective equipment including self-contained breathing |

### 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 HOC-701. |

### 8. Exposure controls/personal protection

a. Exposure Limits	
National regulations	TWA - 5mg/m3 STEL - 10mg/m3
ACGIH regulations	TWA 5 mg/m3
Biological exposure limits	No Data
b. Suitable Engineering Management	
	Use process isolation, local ventilation or other engineering management to maintain air quality under exposure limits. 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 or handle in a ventilated enclosure. For greater protection a face piece chemical cartridge respirator is recommended.

## 9. Physical and chemical properties

1. Appearance	
Type	Liquid
Color	Colorless
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	1.07~1.11
15. n-Octanol/Water Partition coefficient	No Data
16. Autoignition Temperature	No Data
17. Decomposition Temperature	No Data
18. Viscosity(at 25°C)	1,000~2,000cps(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	
BISPHENOL A-EPICHLOROHYDRIN RESIN	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
BENZENEMETHANOL	No Data
b. Acute Toxicity Data	
Acute toxic	
Oral	
BENZENEMETHANOL	LD50 1230 mg/kg Rat
BISPHENOL A-EPICHLOROHYDRIN RESIN	LD50 > 1000 mg/kg Rat
Dermal	
BENZENEMETHANOL	LD50 2000 mg/kg Rabbit

BISPHENOL A-EPICHLOROHYDRIN RESIN	LD50 > 20000 mg/kg Rabbit
Inhalation	
BENZENEMETHANOL	LC50 0.9 mg/l 4 hr Rat
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Skin Corrosion/Irritation	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Serious Eye Damage/Irritation	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Respiratory sensitization	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Skin sensitization	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Carcinogenicity	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
IARC	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
OSHA	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
ACGIH	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
NTP	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
EU CLP	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Germ Cell Mutagenicity	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Reproductive toxicity	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Specific target organ toxicity (single exposure):	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Specific target organ toxicity (repeated exposure):	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Aspiration hazard	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data

## 12. Environmental information

### a. Aquatic and terrestrial ecotoxicity:

Fish toxicity (Acute):	
BENZENEMETHANOL	LC50 10 mg/l 96 hr
BISPHENOL A-EPICHLOROHYDRIN RESIN	LC50 1.41 mg/l 96 hr Oryzias latipes
Water flea toxicity (Acute):	
BENZENEMETHANOL	EC50 1.7 mg/l 48 hr
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Birds growth hinderance test (Acute):	
BENZENEMETHANOL	log Kow 1.1

BISPHENOL A-EPICHLOROHYDRIN RESIN	log Kow 2.821
b. Persistence and degradability:	
Persistence:	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
Degradability:	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
c. Bioaccumulative potential:	
condensability	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
biodegradability	
BENZENEMETHANOL	94 (%) 28 day
BISPHENOL A-EPICHLOROHYDRIN RESIN	0 (%) 28 day
d. Mobility in soil:	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
e. Other adverse effects:	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	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.	1263
b. Proper Shipping Name	PAINT(including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
c. Transportation Class	UN grade : Class 3 Flammable liquids IMDG grade : Class 3.3 High flashpoint group
d. Packing Group	
BENZENEMETHANOL	II
BISPHENOL A-EPICHLOROHYDRIN RESIN	III
e. Marine Pollutant	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
f. Special precautions for user	
fire emergency	
BENZENEMETHANOL	F-E
BISPHENOL A-EPICHLOROHYDRIN RESIN	F-A
spill Emergency	
BENZENEMETHANOL	S-D
BISPHENOL A-EPICHLOROHYDRIN RESIN	S-F

### 15. Regulation information

a. Industrial Safety and Health Act	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
b. Toxic Chemical Control Act	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
c. Dangerous Material Safety Control Act	
BENZENEMETHANOL	No Data
BISPHENOL A-EPICHLOROHYDRIN RESIN	No Data
d. Wastes Management Act	
BENZENEMETHANOL	No Data

BISPHENOL A-EPICHLOROHYDRIN RESIN	Designated waste
e. Other requirements in domestic and other countries	
National regulation	
BENZENEMETHANOL	Not applicable
BISPHENOL A-EPICHLOROHYDRIN RESIN	Not applicable
other countries	
U.S.A(OSHA )	
BENZENEMETHANOL	Not applicable
BISPHENOL A-EPICHLOROHYDRIN RESIN	Not applicable
U.S.A(CERCLA)	
BENZENEMETHANOL	Not applicable
BISPHENOL A-EPICHLOROHYDRIN RESIN	Not applicable
U.S.A(EPCRA 302 )	
BENZENEMETHANOL	Not applicable
BISPHENOL A-EPICHLOROHYDRIN RESIN	Not applicable
USA(EPCRA 304 )	
BENZENEMETHANOL	Not applicable
BISPHENOL A-EPICHLOROHYDRIN RESIN	Not applicable
EU	
BENZENEMETHANOL	Not applicable
BISPHENOL A-EPICHLOROHYDRIN RESIN	R36/38, R43, R51/53

## 16. Other requirements in domestic and other countries

### a. Information source and references

Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)  
 ECB-ESIS(European chemical Substances Information System)(<http://ecb.jrc.it/esis>)  
 ECOTOX Database, EPA(<http://cfpub.epa.gov/ecotox>)  
 IUCLID Chemical Data Sheet, EC-ECB  
 International Chemical Safety Cards(ICSC)(<http://www.nihs.go.jp/ICSC>)  
 TOXNET, U.S. National Library of Medicine(<http://toxnet.nlm.nih.gov>)  
 The Chemical Database, The Department of Chemistry at the University of Akron(<http://ull.chemistry.uakron.edu/erd>)  
 (<http://hazmat.nema.go.kr>)  
 (<http://ncis.nier.go.kr>)  
 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 System(NLM/CCRIS)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CCRIS>)  
 National Library of Medicine/genetic toxicology(NLM/GENETOX)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?GENETOX>)  
 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 2013-06-28

### c. Revision number and date

Revision number -  
 Date -

d. Others -