

# Material Safety Data Sheet

## 1. Chemical Product and Company Identification

Trade Name	<b>SB-150K(Hardner)</b>
General Use	Epoxy adhesive (ABS, Plastic)
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 4 Eye Irrit. : Category 1 Skin Sens. : Category 1 STOT Rep. : Category 1 Aquatic Chronic : Category 1
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### b. Hazards Description:

#### Pictogram



Signal word	DANGER
Hazards Classification and Statements	H302 May be harmful if swallowed H312 Harmful in contact with skin H314 Causes severe skin burns and eye damage H317 May cause an allergic skin reaction H318 Causes serious eye damage H330 Fatal if inhaled H361 Suspected of damaging fertility or the unborn child H370 Causes damage to organs
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 May cause fire or explosion: strong oxidizer P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wash...thoroughly after handling P281 Use personal protective equipment as required.
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).

c. Other harmful or danger characteristic (NFPA)

1,3-BENZENEDIMETHANAMINE

Health hazard	4
Fire	1
Reactivity Hazard	0

O-ARBOXYPHENOL

Health hazard	1
Fire	1
Reactivity Hazard	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS NO.	Amount(%)
1,3-BENZENEDIMETHANAMINE	1477-55-0	30~40
Salicylic acid	69-72-7	60~70

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

1,3-BENZENEDIMETHANAMINE	TWA – C 0.1mg/m <sup>3</sup>
Salicylic acid	No Data
ACGIH regulations	
1,3-BENZENEDIMETHANAMINE	C 0.1 mg/m <sup>3</sup>
Salicylic acid	No Data
Biological exposure limits	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	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	Lemon yellow
2. Odor	No Data
3. Odour threshold	No Data
4. pH	No Data
5. Melting Point/Freezing Point	70°C
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	1.00~1.10
15. n-Octanol/Water Partition coefficient	No Data
16. Autoignition Temperature	No Data
17. Decomposition Temperature	No Data
18. Viscosity(at 25°C)	200~300cps(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

1,3-BENZENEDIMETHANAMINE	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.
Salicylic acid	No Data
b. Acute Toxicity Data	
Acute toxic	
Oral	
1,3-BENZENEDIMETHANAMINE	LD50 980 mg/kg Rat
Salicylic acid	LD50 891mg/kg Rat
Dermal	

1,3-BENZENEDIMETHANAMINE	LD50 2000 mg/kg Rabbit
Salicylic acid	LD50 > 10000 mg/kg Rabbit
Inhalation	
1,3-BENZENEDIMETHANAMINE	LC50 2800 ppm 4 hr Rat
Salicylic acid	LC50> 0.225 mg/kg 4 hr Rat
Skin Corrosion/Irritation	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Serious Eye Damage/Irritation	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Respiratory sensitization	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Skin sensitization	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Carcinogenicity	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
IARC	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
OSHA	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
ACGIH	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
NTP	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
EU CLP	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Germ Cell Mutagenicity	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Reproductive toxicity	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Specific target organ toxicity (single exposure):	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Specific target organ toxicity (repeated exposure):	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
Aspiration hazard	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data

## 12. Environmental information

### a. Aquatic and terrestrial ecotoxicity:

Fish toxicity (Acute):	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	LC50 90 mg/l 48 hr <i>Leuciscus idus</i>
Water flea toxicity (Acute):	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	EC50 870 mg/l 48 hr <i>Daphnia magna</i>
Birds growth hinderance test (Acute):	
1,3-BENZENEDIMETHANAMINE	ErC50 14 mg/l 72 hr
Salicylic acid	No Data

b. Persistence and degradability:

Persistence:

1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	log Kow 2.26

Degradability:

1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	BOD5/COD > 0.69

c. Bioaccumulative potential:

condensability

1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	BCF 3

biodegradability

1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	88.1 (%) 15 day

d. Mobility in soil:

1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data

e. Other adverse effects:

1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	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.	2032
b. Proper Shipping Name	
1,3-BENZENEDIMETHANAMINE	CORROSIVE LIQUID, TOXIC, N.O.S
Salicylic acid	Not applicable
c. Transportation Class	
1,3-BENZENEDIMETHANAMINE	8
Salicylic acid	Not applicable
d. Packing Group	
1,3-BENZENEDIMETHANAMINE	I
Salicylic acid	Not applicable
e. Marine Pollutant	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
f. Special precautions for user	
fire emergency	
1,3-BENZENEDIMETHANAMINE	F-A
Salicylic acid	Not applicable
spill Emergency	
1,3-BENZENEDIMETHANAMINE	S-B
Salicylic acid	Not applicable

### 15. Regulation information

a. Industrial Safety and Health Act	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
b. Toxic Chemical Control Act	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	Not applicable
c. Dangerous Material Safety Control Act	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	No Data
d. Wastes Management Act	
1,3-BENZENEDIMETHANAMINE	No Data
Salicylic acid	Designated waste
e. Other requirements in domestic and other countries	
National regulation	

1,3-BENZENEDIMETHANAMINE	Not applicable
Salicylic acid	Not applicable
other countries	
U.S.A(OSHA )	
1,3-BENZENEDIMETHANAMINE	Not applicable
Salicylic acid	Not applicable
U.S.A(CERCLA)	
1,3-BENZENEDIMETHANAMINE	Not applicable
Salicylic acid	Not applicable
U.S.A(EPCRA 302 )	
1,3-BENZENEDIMETHANAMINE	Not applicable
Salicylic acid	Not applicable
USA(EPCRA 304 )	
1,3-BENZENEDIMETHANAMINE	Not applicable
Salicylic acid	Not applicable
EU	
1,3-BENZENEDIMETHANAMINE	Not applicable
Salicylic acid	Not applicable

## 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>)  
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 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 2014-06-28

### c. Revision number and date

Revision number -  
 Date -

d. Others -