1. PRODUCT AND COMPANY IDENTIFICATION.

A) Product Name : 850B
B) Recommended use and restriction
   - Recommended use : Adhesive
   - Restriction : N/A
C) Manufacturer/Supplier/Distributor
   - Manufacturer : CHEMTROS CO.,Ltd
   - Address : #28 Byeolmang-ro,270beon-gil, Danwon-gu, Ansan-si, Gyeonggi-do, KOREA
   - Emergency Information : Telephone: +82-31-491-7905
                             Fax: 82-31-494-9568

2. HAZARD IDENTIFICATION.

【GHS Classification】
Flammable liquids : Category 2
Skin corrosion / Irritation : Category 2
Serious eye damage / Eye irritation : Category 2
Reproductive toxicity : Category 1A
Specific target organ toxicity single exposure : Category 1

【GHS label elements】

【Signal word】 Danger

Hazard information
H225 Highly flammable liquid and vapor
H304 Be fatal if swallowed and enters airways that
H315 Causes skin irritation
H319 Causes serious eye irritation
H332 Harmful if inhaled
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness
H360 Damaging fertility or the unborn child may be
H372 Prolonged or repeated exposure Causes damage to the body

○ Prevention precautionary statements
- Prevention
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P234 Keep only in original container.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
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 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.

- Response
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P312 Call a POISON CENTER or doctor/physician you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P330 Rinse mouth.
P332+P313  If skin irritation occurs: Get medical advice/attention.
P337+P313  If eye irritation persists: Get medical advice/attention.
P362  Take off contaminated clothing and wash before reuse.

- Storage
P403+P233  Store in a well-ventilated place. Keep container tightly closed.
P403+P235  Store in a well-ventilated place. Keep cool.
P405  Store locked up.

- Disposal
P501  Dispose of contents/container to (According to related regulations set forth in)

3. COMPOSITION/INFORMATION ON INGREDIENTS.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight(%)</th>
<th>CAS No.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic Rubber</td>
<td>10~20</td>
<td>9010-98-4</td>
<td>-</td>
</tr>
<tr>
<td>Phenol resin</td>
<td>5~10</td>
<td>9003-35-4</td>
<td></td>
</tr>
<tr>
<td>Toluene</td>
<td>45~55</td>
<td>108-88-3</td>
<td></td>
</tr>
<tr>
<td>Acetone</td>
<td>3~7</td>
<td>67-64-1</td>
<td></td>
</tr>
<tr>
<td>Cyclo-hexane</td>
<td>15~25</td>
<td>110-82-7</td>
<td>-</td>
</tr>
<tr>
<td>Additive</td>
<td>1~5</td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES.

A) Inhalation  : Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed.

Get medical attention

B) Skin contact  : Remove contaminated clothing, jewelry, and shoes immediately.

Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes).

Get medical attention, if needed.

C) Eye contact  : Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately

D) Ingestion  : Contact local poison control center or physician immediately.
Never make an unconscious person vomit or drink fluids.
When vomiting occurs, keep head lower than hips to help prevent aspiration.
If person is unconscious, turn head to side. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES.

Extinguishing media: Alcohol resistant foam, carbon dioxide, regular dry chemical, water.
Special fire fighting procedures: Self-contained breathing apparatus, protective clothing.

6. ACCIDENTAL RELEASE MEASURES.

Air release:
Reduce vapors with water spray.

Soil release:
Trap spilled material at bottom in deep water pockets, excavated holding areas or within sand bag barriers. Dike for later disposal. Absorb with sand or other non-combustible material. Collect with absorbent into suitable container.

Water release:
Absorb with activated carbon. Collect spilled material using mechanical equipment.
Cover with absorbent sheets, spill-control pads or pillows. Apply detergents, soaps, alcohols or another surface active agent. Remove trapped material with suction hoses.

Occupational release:
Avoid heat, flames, sparks and other sources of ignition. Remove sources of ignition.
Stop leak if possible without personal risk.
Reduce vapors with water spray. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.
Large spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.

7. HANDLING AND STORAGE.

Handling:
Use with adequate ventilation, avoid prolonged or repeated breathing of vapors. Avoid skin contact.
Use in area free from sparks and flame.

Storage:
Storage in cool location (5–35°C) away from sunlight and any source of heat, sparks or flame. Keep container tightly closed when not being used.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION.

Ventilation:

Provide local exhaust ventilation system. Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

Eye protection:

Wear splash resistant safety goggles with a faceshield.

Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Clothing: Wear appropriate chemical resistant clothing.

Gloves: Wear appropriate chemical resistant gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES.

A) Appearance: Black
B) Odour: No data
C) Odour threshold: No data
D) pH: No data
E) Melting point/freezing point: No data
F) Initial boiling point and boiling range: 56°C ~ 110°C
G) Flash point: -20°C
H) Evaporation rate: No data
I) Flammability(solid, gas): No data
J) Upper/lower flammability or explosive limits: No data
K) Vapor rate: No data
L) Solubility: Non soluble
M) Vapor density: No data
N) Relative density: 0.87 ~ 0.91
O) n-octanol/water partition coefficient: No data
P) Auto-ignition temperature: No data
Q) Decomposition temperature: No data
R) Viscosity: 6,000 ~ 8,000cps

10. STABILITY AND REACTIVITY.

Reactivity: Stable under normal temperatures and pressures
Avoid contact with air, light or storage and use above room temperature.

Conditions to avoid:

Avoid heat, flames, sparks and other sources of ignition. Containers may rupture or explode if exposed to heat.

Incompatibilities:

Acids, bases, peroxides, metals, oxidizing materials, combustible materials

Hazardous decomposition:

Thermal decomposition products: oxides of carbon.

Polymerization:

May polymerize. Avoid contact with heat, air, light, initiators or curing agents.

Closed containers may rupture violently.

11. TOXICOLOGICAL INFORMATION.

Information on the likely routes of exposure: Causes skin and eye irritation

Delay by short term and long term exposures, acute and chronic effect:

Acute toxicity:

Oral:

Toluene : LD50 2600 mg/kg Rat
CH : LD50 12705 mg/kg
PHENOLIC RESIN : LD50 > 5000 mg/kg Rat
NEOPRENE : LD50 40000 mg/kg Rat
Acetone LD50 5280 mg/kg Rat (EHC(1990), SIDS(1997))

Skin

Toluene : LD50 120000 mg/kg Rat
CH : LD50 > 2000 mg/kg Rabbit
Phenol resin : (PHENOLIC RESIN) LD50 > 2000 mg/kg
Acetone LD50 12870 mg/kg Rabbit (EHC(1990), PATTY(1994), SIDS(1997))

Inhalation:

Toluene : LC50 12.5 mg/l 4 hr Rat
CH : LC50 70 mg/l
Acetone LC50 32000 ppm Rat
Skin corrosion / irritation : Slight pungent
Causes skin irritation : Slight pungent
Serious eye damage / eye irritation: no data
Causes eye irritation: no data
Reproductive toxicity: no data
May cause harm to breast-fed children: no data
May damage fertility or the unborn child: no data
Specific target organ toxicity single exposure: no data
Causes damage to central nervous system: no data
May cause damage to kidney: no data
May cause respiratory irritation: no data
May cause drowsiness or dizziness: no data
Specific target organ toxicity repeated exposure:
Causes damage to central nervous system: no data
Causes damage to peripheral nervous system: no data
Causes damage to kidney: no data
Causes damage to liver: no data

12. ECOLOGICAL INFORMATION.

A) Ecotoxicity:
   Fish toxicity
   Touene: LC50 24 mg/ℓ 96 hr Oncorhynchus mykiss
   Acetone LC50 > 100 mg/ℓ 96 hr
   INVERTEBRATE TOXICITY:
   Touene EC50 11.5 mg/ℓ 48 hr Daphnia magna
   CH EC50 0.9 mg/ℓ 48 hr
   ALGAL TOXICITY: No data
B) Persistence and degradability: No data
C) Bioaccumulation: No data
D) Mobility in soil: No data
E) Other adverse effects: No data

13. DISPOSAL CONSIDERATION.

A) Disposal method
   Consider disposal via licensed waste disposal company. Scrap may be
   Incinerated under properly controlled conditions.
Please, follow all regulation in your country

14. TRANSPORTATION INFORMATION.

A) UN number : 1133
B) UN proper shipping name : Adhesive
C) Transport hazard class : Class 3
D) Packing group : II
E) Marine pollutant : N/A

15. REGULATORY INFORMATION.

A) Industrial Safety and Health Act
   - Toluene, acetone, cyclohexane
   Work environment Measured material (measurement cycle: 6 months)
   Hazardous chemicals to be managed
   Special medical examination subject substance (diagnosis period: 12 months)
   Process Safety Management (PSM) Substances Subject to Submission
   Exposure standard setting substance
B) Chemical Control Act
   - Toluene
   toxic substances
   Accident preparation material
C) Hazardous Material Act
   - Toluene: Category4 1st petroleum (non-water melting) (200L)
   - Acetone: Category4 1st petroleum (water soluble) (400L)
   - Cyclohexane: Category4 1st petroleum (non-water melting) (200L)
D) Wastes Management Act
   Designated waste
E) Other requirements in domestic and other countries : No data

16. OTHER INFORMATION.

A) Information source and references : Kosha Chemical information Center (http://www.kosha.net)
B) First issuing data : 15.06.1996
C) Revision number and latest revision data : Rev.8, 01.30.2019
D) Other : This information is prepared by Industrial Safety and Health Act. This MSDS is prepared by
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