

## 1. Chemical Product and Company Identification

a. Product Name	Trubond AP4200	
b. Recommended Use of The Chemical and Restrictions on Use		
Recommended Use of The Product	Die Bonding adhesives in the process of semiconductor Packaging	
Restrictions on use of the product	No Data	
c. Manufacturer / Importer / Distributor		
Company	Evertech Enterprise Co., Ltd.	
Address	#508, Starwood plaza, 5439-1, Sangdaewon-dong, Jungwon-gu, Seongnam-si, Gyunggi-do, Korea	
Emergency Phone Number	TEL) +82-31-746-3818	FAX) +82-31-741-3818

## 2. Hazard and Risk

a. Hazard and Risk Classification	Skin Corrosion / Irritation : Category 2 Serious Eye Damage / Eye Irritation: Category 2
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### b. Items, Including Precautionary Statements Warning Signs

Pictograms



The Signal Word  
Hazard Statement

Danger  
H302 Harmful if swallowed  
H304 Could be fatal if swallowed and enters airways.  
H312 Harmful in contact with skin  
H315 Causes Skin Irritation  
H319 Causes Serious Eye Irritation  
H335 May Cause Respiratory Irritation

Precautionary Statements  
Prevention

P201 Please obtain special instructions before use.  
P202 Do not treat until you have read and understood all the safety precautions before handling.  
P260 (Dust, fumes, gas, steam, spray mist) Do not breathe.  
P264 Wash hands thoroughly after handling.  
P270 When using this product Do not eat, drink or smoke.  
P271 Please treat only outdoors or in a well-ventilated area.  
P280 Wear (Protective Gloves, Protective Clothing, Safety Glasses and Face Shield).  
P281 Use personal protective equipment as required.  
P301+P312 If you feel discomfort swallowing, seek medical physician.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or physician attention.  
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.  
P305+P351+P338 Wash eyes cautiously with water for several minutes If Please remove contact lenses if possible. Continue rinsing.  
P312 Feel discomfort, call a poison center or physician.  
P330 Rinse mouth.  
P332+P313 If skin irritation occurs, Seek medical advice and attention.  
P337+P313 If eye irritation persists: Seek medical advice and attention.  
P362 Take off and re-use contaminated clothing and wash before.  
P363 Wash contaminated clothing before reuse.  
P501 Dispose of the contents of containers (in accordance with the content specified in the relevant laws and regulations)

Disposal

### c. Other standards Hazard that are not included in the Hazard Classification (NFPA)

Health	1
Fire	1
Reactivity	0

### 3. Composition, Information on Ingredients

a) Formaldehyde, Polymer with (Chloromethyl) Oxirane and Phenol	
Trivial Name	Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
CAS No.	9003-36-5
Concentration Ranges (%)	10~20%
b) 1,4-Butanedioldiglycidyl Ether	
Trivial Name	1,4-bis(2,3-epoxypropoxy)butane
CAS No.	2425-79-8
Concentration Ranges (%)	1~2%
c) Phenolic Resin	
Trivial Name	Formaldehyde, oligomeric reaction products with phenol
CAS No.	9003-35-4
Concentration Ranges (%)	1~2%
d) Ethylene glycol monobutyl ether acetate	
Trivial Name	2-butoxyethyl acetate
CAS No.	112-07-2
Concentration Ranges (%)	3~5%
e) Silver	
Trivial Name	Silver Atom
CAS No.	7440-22-4
Concentration Ranges (%)	70~80%

### 4. First Aid Measures

a. On Contact with Eyes	Immediately upon contact with the material in flowing water for more than 20 minutes Rinse skin and eyes. Seek emergency medical attention. If eye irritation persists: Seek medical advice and attention. Wash eyes cautiously with water for several minutes IF Please remove contact lenses if possible. Continue rinsing.
b. When in Contact with Skin	Take off and re-use contaminated clothing and wash before. Exposed or if you feel uncomfortable seek medical physician. Minor skin contact to prevent the spread of contaminated sites. Immediately upon contact with the material in flowing water for more than 20 minutes Rinse skin and eyes. Isolate the contaminated area and remove contaminated clothing and shoes. Seek emergency medical attention If the hot material, a large amount of cold water to immerse the affected area to eliminate heat rinse. Immediately upon contact with the material in flowing water for more than 20 minutes Rinse skin and eyes.
c. Inhalation	Seek emergency medical attention Please move to fresh air. Please warm and stable. Take medical attention if cough or other symptoms, and clean air to remove the excessive amount of dust or fume exposure. Keep artificial respiration if breathing does not Keep oxygen supply if breathing is difficult. Exposed or if you feel uncomfortable seek medical physician. Do not induce vomiting
d. Ingestion	Do not feed anything by mouth to an unconscious person. Seek emergency medical attention Mouth-to-mouth artificial respiration if not eating or inhalation substances do not keep proper respiratory medical equipment. Rinse mouth will do. IF SWALLOWED: Immediately call a POISON CENTER or physician unwell. Do not induce vomiting
e. Other Doctor's Precautions	To take steps to protect medical personnel are aware about the substance please.

## 5. Fire-Fighting Measures

### a. Appropriate (Unsuitable) Extinguishing Media

Large fires: water spray / fog, regular foam (appropriate extinguishing)  
Small fires: dry sand, dry chemical, alcohol foam, water spray, normal foam, CO<sub>2</sub> (Extinguishing media)  
Flooding pressure (Unsuitable extinguishing media)  
Associated with these substances digestion of alcohol-resistant foam, carbon dioxide or water spray should be used.  
Choking digestion, dry sand or soil.

### b. Specific Hazards Arising from the Chemical

May explode when heated containers.  
Heat, sparks and flame can be lit by  
Fire, irritating and toxic gases may cause  
Inhalation of the substance may be harmful  
Some liquid dizziness, suffocation may occur to cause the steam  
By thermal decomposition or combustion while riding stimulating and very poisonous gas may occur.  
Collect spillage with non-combustible, substance itself when heated, not burned, but the corrosive / toxic fumes can cause decomposition.  
Toxic gases decompose at high temperature can generate

### c. To Wear Protective Equipment for Fire-Fighters and Preventive Measures

Some of the high temperature can be transported.  
Leaks can lead to water pollution.  
May cause burns on contact with skin and eyes.  
Digestion by maintaining a safe distance out of the area please.  
Rescuers wear appropriate protective equipment.  
Transportation may be melting, so beware.  
Keep using unmanned fire fighting equipment or fire extinguishing tank fires up at a distance of  
Make tank fire during digestion after a large amount of cool containers with water.  
From the tank fire during pressure release device or any discoloration of tanks to high notes out of the way immediately.  
Get out of the tank in the tank fires in flames.  
Unmanned fire fighting equipment and tank fire during a massive fire is not possible, withdraw ride.  
Ditch parser for disposal of water fire extinguishers, imprisoned and substance are not disturbed so please.

## 6. Accidental Release Measures

### a. The necessary precautions and protective equipment to protect the body

Stop the leak if without risk.  
Please remove all sources of ignition.  
Please note the substances to be avoided and conditions.  
Prevent dust formation.  
Do not touch or walk around the exposed material.  
Keep air pollution areas.  
Spills wipe off immediately, and to reserve follow preventive measures in protest.  
Stop the leak if without risk.  
Do not touch without wearing adequate protection of container breakage or spills.  
Barricade spread plastic sheets to cover.  
Avoid inhalation of the spray (Dust, Hume · Gas · Vapor Mist).  
Prevent from entering waterways, sewers, basements, confined space.

### b. Precautions to protect the environment

### c. Purification or removal methods

Small spill contaminated area with plenty of water for rinsing.  
Please move containers from spill area clean, dry container contains spills clean with a shovel behind closed loosely.  
Large spill liquid spills away from ditch to make.  
Small spill sand, non-combustible material to absorb and inert containers.  
Cover with plastic sheet to prevent the spread of powder leak : remain dry.  
Inert material (eg dry sand or soil) has been spilled, absorb and put it in a chemical waste container.  
Absorb the liquid and contaminated areas, wash with detergent and water.

## 7. Handling and Storage

### a. Precautions for safe handling

Please note the substances to be avoided and conditions  
Handling Wash thoroughly after handling areas.  
Please see the engineering controls and personal protective equipment.  
Pay attention to high temperatures.  
When use this product, you do not eat or drink, smoke.  
Barricade the long-term or continuous skin contact.  
Product residue may remain after the container has been emptied, all MSDS / label  
please follow the preventive measures.  
You used with caution in handling / storage.  
Carefully before opening the spigot and open.  
Barricade the long-term or continuous skin contact.  
Avoid inhalation of the spray (Dust, Hume · Gas · Vapor Mist).  
Please treat only outdoors or in a well-ventilated area.  
Read and understand all safety precautions Do not handle until.  
If you do not have access to adequate ventilation Avoid storage areas.

### b. For safe storage

Keep tightly closed.  
Store in a cool, dry place.  
Please note that materials and conditions to avoid.  
Empty drum drain completely and properly put back in place immediately to block the  
drum controller.  
Keep away from food and beverages.  
Keep container tightly closed and store in a well-ventilated place.

## 8. Exposure Controls and Personal Protection

### a. Exposure limits of chemicals, biological exposure limits, etc.

Domestic regulations	No data
ACGIH regulations	No data
Biological exposure limits	No data

### b. Appropriate engineering controls

This substance would not storing or using the three fixtures and safety shower  
installation.  
Process isolation, local exhaust, or use, to maintain air levels below the exposure  
guidelines.  
Driving : Dust, Hume or if you are experiencing an air mist, pollution exposure standards  
to be maintained at or below the vent.

### c. Personal protective equipment

Respiratory Protection	Being exposed to particles fits the physical and chemical properties of the Korea occupational safety Health Corporation of certification, Phil wore a respirator.
Eye Protection	Eye and face protection chemicals for defense use.
Hand Protection	Workshop near the shower, wash facilities and emergency installation. Wear appropriate chemical resistant gloves.
Skin and body protection	Wear appropriate chemical resistant clothing.

## 9. Physical and chemical properties

a. Appearance	
Appearance	Liquid
Color	Gray
b. Odor	No
c. Odor threshold	No data
d. pH	8
e. Melting point / Freezing point	<-20℃
f. Initial boiling point and boiling range	> 250 ℃
g. Flash point	200 ℃
h. Evaporation rate	No data
i. Flammability (solid, gas)	No data
j. Upper / lower flammability or explosive limits	No data
k. Vapor pressure	No data
l. Solubility	Insoluble

m. Vapor Density	No data
n. Weight	3.3 ~ 3.7
o. n-octanol / water partition coefficient	No data
p. Auto-ignition temperature	No data
q. Decomposition temperature	No data
r. Viscosity	No data
s. Molecular weight	No data

## 10. Stability and reactivity

a. The possibility of chemical stability and adverse reactions	<p>Stable at room temperature.</p> <p>Some can burn but does not ignite easily</p> <p>Non-flammable, substance itself is not getting heat to decompose to corrosive / toxic fumes by : may</p> <p>Fire : irritant, poisonous gas may result in.</p> <p>Heat : Courage may explode.</p> <p>Inhalation of the substance may be hazardous</p> <p>Some liquid vapors that may cause choking, dizziness, may occur</p> <p>Decompose at high temperatures, toxic gases may be generated</p>
b. Conditions to avoid	Heat, flames, ignition sources and direct sunlight
c. Substances to be avoided	<p>Combustible Substances</p> <p>Irritating, Toxic Gas</p> <p>Reducing Substances</p>
d. Hazardous Decomposition Products	<p>Thermal decomposition or combustion while riding by irritating and very toxic gas may occur.</p> <p>Corrosive / Toxic Fume</p> <p>Irritant, Toxic Gas</p>

## 11. Toxicological Information

a. Information on the likely routes of exposure	<p>Can stimulate the respiratory tract</p> <p>That can irritate the skin</p> <p>Irritating to eyes can cause</p> <p>Allergic reactions, eye damage, may cause burns.</p>
b. Health hazard information	
Acute Toxicity	
oral	No data
Dermal	No data
Inhalation	No data
Skin corrosive or irritant	No data
Serious eye damage or irritant	No data
Respiratory sensitization	No data
Skin sensitization	No data
Carcinogenic	
Occupational Health and Safety Act	No data
Department of Labor Notice	No data
IARC	No data
OSHA	No data
ACGIH	No data
NTP	No data
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. Impact on the environment

a. Ecotoxicity	
Fish	No data
Shellfish	No data
Birds	No data
b. Persistence and Degradability	
Persistence	No data
Degradability	No data
c. Biological Accumulation	
Condenasability	No data
Biodegradable	No data
d. Mobility in soil	No data
e. Other adverse effects	No data

## 13. Disposal considerations

a. Methods of disposal	1) Incineration please Waste Management Act, if stated in the contents and container disposed of according to the regulations.
b. Disposal considerations	(Depending on the content as stated in the relevant legislation) Discard the contents of the containers.

## 14. Transport Information

a. UN number	UN Transportation risk drawing quality classification information none.
b. Proper Shipping Name	Not applicable
c. Hazard Class	Not applicable
d. Packing Class	Not applicable
e. Marine pollutants	No data
f. Users need to know in relation to the transportation or shipping, or need special safety measures.	
Emergency measures in case of fire	Not applicable
Spill contingency measures	Not applicable

## 15. Regulatory

a. Regulation on industrial safety and Health Act	No data
b. Regulation by the TCCA	observation material
c. Regulation by the Dangerous Goods Safety Management Act	No data
d. Regulation by the Waste Management Act	Designated waste
e. Other domestic and foreign laws and regulation	
Domestic regulatory	
Persistent Organic Pollutants Management Act	Not applicable
Overseas regulatory	Not applicable

## 16. Other Notes

a. The source of the displayed data	Industrial Safety Management Corporation Safety Data
b. Date First	2014. 01. 23
c. Revised number and date	2014. 01. 23 (Rev. 00)
d. Etc.	Written material safety data sheets (MSDS) the Korea occupational safety health agency, see the MSDS provided by the edit, modify some of the material.