

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: *Seal-glo* UF317H DOCUMENT NO. 2252 DATES: 25/02/2009 1/6PRODUCT NAME : *Seal-glo* UF317H
CHEMICAL FAMILY : Underfill Epoxy

SECTION 1 - COMPANY IDENTIFICATION

MANUFACTURE'S NAME : FUJI CHEMICAL INDUSTRIAL CO., LTD.
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DATA PREPARED : 25/02/2009

SECTION 2 - HAZARDOUS IDENTIFICATION

2-1 GHS Classification

2-1-1 physical Hazards Sensitization

2-1-2 Health Hazards

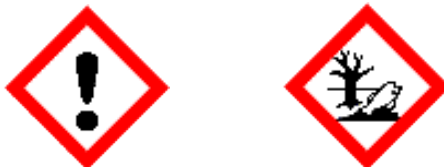
Skin corrosion/irritation: (GHS Category 2)
Skin sensitization: (GHS Category 2)

2-1-3 Environmental Hazards

Hazardous to the aquatic environment (acute): (GHS Category 1)
Hazardous to the aquatic environment (chronic): (GHS Category 1)

2-2 GHS Label Elements

2-2-1 Pictograms



2-2-2 Signal Word Warning

2-2-3 Hazard Statements

- Causes skin irritation
- Causes eye irritation
- Very toxic to aquatic life
- Very toxic to aquatic life with long lasting effects

2-3 Precautionary Statements

Prevention

- Wear the protection glove, protection glasses, the protection side, and the protection clothes.
- Wash your hand well after handling.
- Avoid the discharge into the environment.

Emergency response

- When adhering to the skin or the hair: Wash with bags of water and soap.
- Wash when polluted clothes are taken off, and used again.
- Receive the doctor's treatment when you generate the cutaneous stimulus.
- When it enters eyes: Wash in water for several minutes carefully. Next, remove when it is possible to remove easily by having worn the contact lens. Keep washing it afterwards.
- Receive the doctor's treatment when the stimulation of eyes continues.

Storage

- For 1 liquid-related resin, please keep it at low temperature (less than 5 degrees Celsius).

Disposal

- Have contents and containers disposed by special waste disposers with permits from governors.

SECTION 3 – Composition and information on ingredients

Pure Substance or Mixtures	Mixtures	
Contents of the ingredients		
Ingredient names	Content (wt%)	CAS No.
Bisphenol A type epoxy resin	1-20%	25068-38-6
Bisphenol F type epoxy resin	20-50%	58421-55-9
Special epoxy resin	5-25%	16096-31-4
Phenol novolac resin	5-25%	27924-97-6
Hardening agent	1-20%	55089-03-7
Glycol	5-15%	25322
Non disclosure	5-15%	—

Hazardous ingredients: I refer to the [the main application law] of the last page about the chemical substance which notifying you of it in bisphenol A type epoxy resin, boron laws and ordinances was obliged to.

SECTION 4 – First-aid measures

When I touched skin

- I wash off an adhesion part with soap after I take off polluted clothes and shoes promptly, and having washed it while draining water or lukewarm water. I take a medical advice if necessary.

When I caught sight

- I wash it with a large quantity of water promptly, and take a medical advice.

When I inhaled it

- I move it to the place where air is fresh and rest quietly in bed. I take a medical advice if necessary.

When I swallowed it

- Not letting the unreasonableness that a victim purifies in a mouth with water in a case with consciousness vomit. When case and convulsions without consciousness are caused, a mouth must give anything. Receive treatment for a doctor immediately in the case of both.

SECTION 5 – Fire-fighting measures

Fire extinguishers

- Powder, bubble, carbon dioxide, AGFF (a macromolecule gel generation type fire extinguishing medicine)

A fire extinguishing method

- In the case of initial fire extinguishing, I quit combustion source to a cause and extinguish a fire from windward. I move a removable container immediately in a safe place. I prohibit an entrance except the person concerned around a fire nidus. I report fire outbreak promptly. I evacuate it anyone other than the person concerned immediately in a safe place. A thing equal to fire extinguishing secures an evacuation route. In the case of a large-scale fire, it is effective I use bubble fire extinguishers, and to intercept air. Use of water escalates a fire, and there is a dangerous case. I move inflammables around a fire place. When I judged that I am unmanageable, entrust a fire station, and criticize fire extinguishing.
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SECTION 6 – Accidental release measures

Instructions for the human body

- A worker wears a tool for protection by all means.
- In the case of indoor, I ventilate it enough till processing is over.

Instructions for environment

- Prevent a leakage from flowing into a river, a waterway.

A removal method

- I recruit it in the container which can shut leakage liquid tightly as much as possible.
- I collect it in the container which I let soil, sand adsorb remaining liquid and can seal up.

Prevention of a second disaster

- I remove a thing becoming nearby firing source immediately.
 - I evacuate a person of the lee and prohibit neighboring entrances.
 - I prepare fire extinguishing machine parts, and work from windward.
 - When I flowed into a river, a public waterway by any chance, I contact the pollution person in charge of a self-governing body of a district promptly.
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SECTION 7 – Handling and storage

The handling

Technical measures

- I wear a tool for appropriate protection (protection gloves, protection glasses, a protection mask, work clothes of long sleeves, pants).
- Electric instrumentation machinery use a thing preventing an explosion.
- I establish being equipped, and work on a limited part or total exhaust at ventilation, a good place of the ventilation.
- I manage it not to mix it with other products and acid, alkali. (I react and can run a fever.)
- Work in accordance with the laws such as fire strict prohibition, the Occupational Safety and Health Act concerned.

Instructions

- I handle it, and perform a bathroom and a gargle enough afterward.
- I seal up a container, and, in the case of safekeeping, keep it in the storage of predetermined safekeeping.

- Isolate it from the source of heat, a place of fire.
 - I let you let a container or packing turn over and drop and give a shock and must not give the violent treatment.
 - The use back shut a container tightly immediately.
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SECTION 8 – Exposure controls and personal protection

Revelation preventive measures

Facilities

- I establish the whole or a limited part exhaust in a workshop. Near a handling place, I establish washing eyes and a bathroom, facilities for physical washing.

A tool for protection

A tool for protection for breathing

- A gas mask (organic gas use, supply of air mask, self-support-type respiratory organs)

A tool for manual protection

- Protection gloves (a product made in oiliness rubber-resistant)

A tool for protection of eyes

- Eye protective device (goggles type)

Skin and a tool for physical protection

- Protection clothes (charging with electricity prevention model long sleeves, pants), protection shoes (a charging with electricity prevention model)

An anti-appropriate hygiene measure

- I keep it, and the thing that expiration date expired does not use a tool for protection for a clean constant place.
 - I state washing eyes and a bathroom, a position of facilities for physical washing clearly.
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SECTION 9 – Physical and chemical properties

A physical state

A property	: Liquid	A color	: Black
A smell	: A dim resin smell	Viscosity	: 1600mPa · s (23 degrees Celsius)
Specific gravity	: 1.14	The boiling point	: Unavailable
A melting point	: Unavailable	A dissolubility	: I do not dissolve in water
Volatility	: Unavailable	An ignition point	: Unavailable (Cleveland opening type)

SECTION 10 - Stability and reactivity

Stability

It is stability in a normal handling condition in normal temperature.

Reactivity

I react by heating and become hardening thing. Because big fever is caused, avoid sudden high temperature heating. It is accompanied with fever by acid, alkali and reacts.

A resolution product:

There is not knowledge of a dangerous harmful resolution product.

SECTION 11 – Toxicological information

Acute toxicity

Bisphenol A type epoxy resin Bisphenol F type epoxy resin
More than LD50 11g/kg (oral rat) More than LD50 3g/kg (oral rat)
A limited part effect

Skin pungency

Inflammation can be caused to skin.

Eyes pungency

There is weak pungency.

Sensitization characteristics

It can cause allergy-related cutitis.

Original variation characteristics

Bisphenol A type epoxy resin, Bisphenol F type epoxy resin (by Mayor of Labor Standards Bureau notification)

Original cancer characteristics

Special epoxy resin shows strong positive.

Reproduction is toxic

There is no knowledge

Others

There is no knowledge

SECTION 12 - Ecological information

Because there is danger that I affect environment in the case of a leak, the disposal, I warn you to handle it.

Others

There is no cadmium component (under detection limit 2ppm)
There is no lead component (under detection limit 2ppm)
There is no hexavalent chrome component (under detection limit 2ppm)
There is no mercury component (under detection limit 2ppm)
There is no [PBBs, PBDEs] component (under detection limit 2ppm)
There is no phthalate ester component
In addition, there is no harmful heavy metal component

SECTION 13 - Disposal considerations

Leftover waste

I conclude a trust contract with a person of waste industry and I make contents clear and entrust you with processing. Waste works to burn it up.

SECTION 14 - Transport information

I perform loading, transport according to a standard of laws and ordinances.

I confirm cracking down on condition of a stopper and a thing without a leak every container and load a fall or a fall of a container so that there is not the damage of a container and perform collapse of cargo prevention surely.

I carry a tool for protection, a fire extinguisher.

I carry a document mentioned about processing at the time of an accident.

SECTION 15 - Current regulations

In Japan:

Firefighting method: Non-dangerous materials (designated inflammables)

The third the fourth dangerous materials oil non-water-soluble
dangerous class III

Industrial Safety and Health Law:

Mutation field chemical (Bisphenol A type epoxy resin)

Labor Standards Law:

Industrial injury recognition material (Bisphenol A type epoxy resin)

PRTR method object quality: (Bisphenol A type epoxy resin 50% First class-30)

Wastes Disposal and Public Cleaning Law :(industrial waste)

Air pollution control law: Poisonous substance when burning

Sea Pollution Prevention Act: B material

Export Control Order: I fall (Catch-all controls object product)

(Bisphenol A type epoxy resin)

In EC:

EC Label name: Epoxy resin (Number Average Molecular Weight<700)

EC Classification: Irritant. Dangerous for the environment.

EC Symbols: Xi, N

EC Risk phrases: R36/38:Irritating to eyes and skin.

R43:May cause sensitization by skin contact.

R51/53:Toxic to aquatic organisms, may cause long-term adverse effects in the
aquatic environment.

EC Safety phrases : S24: Avoid contact with skin. S26 In case of contact with eyes, rinse
immediately with plenty of water and seek medical advice.

S28: After contact with skin; wash immediately with plenty of soap and
water.

S37/39: Wear suitable gloves and eye/face protection.

S61: Avoid release to the environment.

Refer to special instruction /Safety data sheets.

EINECS(EC): NLP No.500-033-5

EC Annex I number: 603-074-00-8

For Industrial Use only

This Material Safety Data Sheet was prepared on the basis of materials' information and data obtained at present by our company. To the best of our knowledge, the information contained here in is accurate. Final determination of suitability of all material is the sole responsibility of the user. All material may present unknown hazards and should be used in caution. We provide no warranties, either express or implied, and assume no responsibility for the accuracy or completeness of the data contained herein.