

Material Safety Data Sheet

MSDS Number : 41020-0

Issue Date : June 8, 1999

1. Chemical Product and Company Identification

SHO-BOND BL SEAL Base Agent

Company Identification

Distributor

Manufacturer

SHO-BOND KAGAKU CO., LTD.

Resin Products Division, Technology Department

2-8-10, Yoshinodai, Kawagoe-shi, 350-0833, Saitama, Japan

Tel : 81-429-25-5611

Fax : 81-429-25-5616

2. Composition / Information on Ingredients

<u>Hazardous ingredients</u>	<u>percentage</u>	<u>CAS Number</u>
Unsaturated polyester resin	25-30%	Trade Secret
Styrene	15-20%	100-42-5
Methanol	1-5%	67-56-1
Contain inorganic filler (not contain asbestos)		

3. Hazards Identification

Emergency overview

Yellow brown putty, with specific odor. Flammable. Contact with skin may cause irritation. Inhalation may cause poisoning.

Potential health Effects**Eyes**

May cause eye irritation.

Skin

Prolonged or repeated skin contact may cause irritation.

Inhalation

High vapor concentrations may be harmful if inhaled.

Ingestion

May be harmful if swallowed.

4. First Aid**Eyes**

Flush eyes with plenty of water for 15 minutes if contact occurs. It is also recommended to have medical personnel check your eye, as soon as possible.

Skin

Wipe off with clothes, and wash the contacted parts with soap and warm water. Avoid using organic solvents for washing. If an itch, an inflammation or a pain will occur, get a medical attention.

Inhalation

Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

Ingestion

Do not induce vomiting. Get medical attention.

5. Fire Fighting Measures**Method used**

Dry chemical powder, carbon dioxide, foam.

Precautions

Wear a fire-fighting wear, and fight a fire from windward.

6. Accidental Release Measures

Large spill

Evacuate area. Shut off all source of ignition. Wear appropriate personal protective equipment (gloves, mask or breathing apparatus). Contain the spilled area with sand or sandbags. Collect spilled material in tightly-closed containers. Absorb the residue with sand, diatomaceous earth or sawdust, and collect in containers for waste disposal.

Small spill

Wear appropriate personal protective equipment (gloves, mask or breathing apparatus), if it is required. Wipe off the spilled material with clothes or rags, and hold in a tightly-closed container for waste disposal.

7. Handling and Storage

Handling

Wear solvent-impervious gloves, and avoid contact with skin and eyes.

Use in a well ventilated area. Keep away from all ignition sources.

Wash thoroughly after handling

Storage

Do not store in direct sunlight. Store in a cool place.

8. Exposure Controls / Personal Protection

Engineering control

Local exhaust ventilation, an eye wash facility and an safety shower.

Personal protective equipment

Chemical safety goggles, chemical resistant gloves, rubber boots, chemical suit, a NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister.

Exposure guidelines

Styrene	OSHA PEL	100 ppm
	ACGIH TWA	50 ppm
Methanol	OSHA PEL	200 ppm
	ACGIH TWA	200 ppm

Inorganic filler substances have been decided their OSHA PEL values,

however, these substances will not be in powder state in this product, so, these values are not applicable.

9. Physical and Chemical Properties

Appearance

Yellow-brownish putty

Odor

Specific odor. Odor threshold level – unknown

Solubility in water

Insoluble

Evaporation rate

Not determined, however this material is volatile.

10. Stability and Reactivity

Flash point

33 deg. C

Explosion limit

Styrene	Upper	6.1 vol%
	Lower	1.1 vol%

Incompatibility

Mix with BL-SEAL Hardener, ONLY when you use this product, or when you dispose the aged products (Refer Section 13)

Engineering Control

Use explosion-proof electrical (ventilating and lighting) equipment.

11. Toxicological Information

Acute toxicity

Styrene	Oral LD ₅₀ :	5000 mg/kg (Rat)
	Inhalation LD ₅₀ :	24 g/m ³ /4hr (Rat)

Irritation / corrosion

May cause irritation to skin and eyes.

Carcinogenicity

Styrene is classified as 2B by IARC.

12. Ecological Information

Fish toxicity

Styrene TLm(96hr) 22 ppm (Bluegill)

This product will become solid after mixing with BL-SEAL Hardener, in preparation for use. Most of the ingredients will not leach out to the environment, except for a small portion of styrene. Styrene has been confirmed that it is readily biodegraded in water way.

13. Disposal Considerations.

Burn in an incinerator equipped with an afterburner and a scrubber. Or, mix with BL-SEAL Hardener to make a solid, and then landfilled in an approved site.

14. Transport Information

UN class Class 4.1 Flammable solid Package group III

UN number 1325 Flammable solid n.o.s.

This product is exempted from transport regulations because of its small amount of package unit (0.9 kg).

15. Regulatory Information

RCRA	Reportable quantity
Styrene	1000 pounds
Methanol	1 pounds

16. Other Information

The information herein is given good faith, but no warranty, expressed or implied, is made. Consult the distributor for further information.

Skin

Prolonged or repeated skin contact may cause irritation.

Inhalation

High vapor concentrations may be harmful if inhaled.

Ingestion

May be harmful if swallowed.

4. First Aid**Eyes**

Flush eyes with plenty of water for 15 minutes if contact occurs. It is also recommended to have medical personnel check your eye, as soon as possible.

Skin

Wipe off with clothes, and wash the contacted parts with soap and warm water. Avoid using organic solvents for washing. If an itch, an inflammation or a pain will occur, get a medical attention.

Inhalation

Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

Ingestion

Induce vomiting. Get medical attention.

5. Fire Fighting Measures**Method used**

Dry chemical powder, carbon dioxide, foam.

Precautions

Wear a fire-fighting wear, and fight a fire from windward.

6. Accidental Release Measures**Large spill**

Evacuate area. Shut off all source of ignition. Wear appropriate personal protective equipment (gloves, mask or breathing apparatus). Contain the spilled area with sand or sandbags. Collect spilled material in tightly-closed containers. Absorb the residue with sand, diatomaceous earth or sawdust, and collect in tightly-closed containers for waste disposal.

Material Safety Data Sheet

MSDS Number : 41020-1

Issue Date : June 8, 1999

1. Chemical Product and Company Identification

SHO-BOND BL SEAL Hardener

Company Identification

Distributor

Manufacturer

SHO-BOND KAGAKU CO., LTD.

Resin Products Division, Technology Department

2-8-10, Yoshinodai, Kawagoe-shi, 350-0833, Saitama, Japan

Tel : 81-429-25-5611

Fax : 81-429-25-5616

2. Composition / Information on Ingredients

<u>Hazardous ingredients</u>	<u>percentage</u>	<u>CAS Number</u>
Dimethyl phthalate	22-27%	131-11-3
Benzoyl peroxide	3-7%	94-36-0

Contain inorganic filler (not contain asbestos)

3. Hazards Identification

Emergency overview

White putty, with ester-like odor. Flammable. Contact with skin may cause irritation. Inhalation may cause poisoning.

Potential health effects

Eyes

May cause eye irritation.

Small spill

Wear appropriate personal protective equipment (gloves, mask or breathing apparatus), if it is required. Wipe off the spilled material with clothes or rags, and hold in a tightly-closed container for waste disposal.

7. Handling and Storage**Handling**

Wear solvent-impervious gloves, and avoid contact with skin and eyes.

Use in a well ventilated area. Keep away from all ignition sources.

Wash thoroughly after handling

Storage

Do not store in direct sunlight. Store in a cool place.

8. Exposure Controls / Personal Protection**Engineering control**

Local exhaust ventilation, an eye wash facility and an safety shower.

Personal protective equipment

Chemical safety goggles, chemical resistant gloves, rubber boots, chemical suit, a NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister.

Exposure guidelines

Dimethyl phthalate	OSHA PEL	5 ppm
	ACGIH TWA	5 ppm

Inorganic filler substances have been decided their OSHA PEL values, however, these substances will not be in powder state in this product, so, these values are not applicable.

9. Physical and Chemical Properties**Appearance**

White putty

Odor

Ester-like odor. Odor threshold level – unknown

Solubility in water

Hardly insoluble

Evaporation rate

Not determined, however this material is volatile.

10. Stability and Reactivity**Flash point**

33 deg. C

Incompatibility

Don't mix with acids, bases, or reducing agents.

Engineering Control

Use explosion-proof electrical (ventilating and lighting) equipment.

11. Toxicological Information**Acute toxicity**

Benzoyl peroxide Oral LD₅₀ : 7710 mg/kg (Rat)

Irritation / corrosion

May cause irritation to skin and eyes.

Carcinogenicity

None.

12. Ecological Information

No information available

13. Disposal Considerations.

Burn in an incinerator equipped with an afterburner and a scrubber. Or, mix with BL-SEAL Base Agent to make a solid, and then landfilled in an approved site.

14. Transport Information

Not a hazardous material for DOT shipping.

15. Regulatory Information

RCRA	Reportable quantity
Dimethyl phthalate	1 pound (Under Section 307 of CWA)
	5000 pounds (Under Section 3001 of RCRA)

16. Other Information

The information herein is given good faith, but no warranty, expressed or implied, is made. Consult the distributor for further information.