

SAFETY DATA SHEET 2022

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	: ShieldFix BF
Other means of Identification	: None
Component	: Resin
Relevant identified uses of the substance or mixture and uses advised against	: No further relevant information available
Application of the Substance / the Mixture	: Paint
Manufacturer/Importer/Supplier/Distributor Information	: ShieldCrete [®] International
Company Name	: ShieldCrete [®] International Sdn Bhd
Address	: 66 Jalan Setiakasih 9 Bukit Damansara, Kuala Lumpur, Malaysia 50490
Contact Numbers	: +66 928 639 833 +63 966 465 5362
Email	: info@shieldcreteinternational.com
Website	: www.shieldcreteinternational.com

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification according to Regulation (EC) No 1272/2008



GHS08 Health Hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2 H319 Causes serious eye irritation.
 Skin Sens. 1 H317 May cause an allergic skin reaction.

Label Elements

Labelling according to Regulation (EC) No 1272/2008:

The product is classified and labelled according to the CLP regulation.

Hazard Pictograms:

GHS07



GHS08



GHS09



Signal Word:

Warning

Hazard-determining Components of Labelling:

- bis[4-(2,3-epoxypropoxy)phenyl]propane
- quartz (SiO₂) (fine fraction)

Hazard Statements:

- Causes skin irritation.
- Causes serious eye irritation.
- May cause an allergic skin reaction.
- May cause damage to organs through prolonged or repeated exposure.
- Toxic to aquatic life with long lasting effects.

Precautionary Statements:

- Do not breath vapors.
- Wear protective gloves / eye protection / face protection.
- Avoid release to the environment.

If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.





If Skin Irritation or Rash Occurs: Get medical advice/attention. Dispose of contents/container in accordance with regional/national regulations.

Other Hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: COMPOSITES / INFORMATION ON INGREDIENTS**Mixtures**

Description: Mixture of substances listed below with nonhazardous additions.

DANGEROUS COMPONENTS		
CAS: 1675-54-3 EINECS: 216-823-5 Reg.nr.: 01-2119456619-26	Bis[4-(2,3-epoxypropoxy)phenyl]propane  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	50-75%
CAS: 7727-43-7 EINECS: 231-784-4 Reg.nr.: 01-2119491274-35	Barium Sulfate substance with a Community workplace exposure limit	10-25%
CAS: 14808-60-7 EINECS: 238-878-4 Reg.nr.: -	Quartz (SiO ₂) (fine fraction)  STOT RE 1, H372	25-50%
CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38	Benzyl Alcohol  Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2, H319	1-2.5%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: FIRST AID MEASURES

General Information:	Immediately remove any clothing soiled by the product.
Inhalation:	Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.
Skin Contact:	Immediately wash with water and soap and rinse thoroughly.
Eye Contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Ingestion:	If symptoms persist, consult a doctor.

Most important symptoms and effects, both acute and delayed:

No further relevant information available.

Indication of any immediate medical attention and special treatment needed:

No further relevant information available.

SECTION 5: FIRE FIGHTING MEASURES**Extinguishing Media:**

Use fire extinguishing methods suitable to surrounding conditions.

Special Hazards arising from the Substance or Mixture:

During heating or in case of fire poisonous gases are produced.

Advice for Firefighters:

Protective equipment: Mount respiratory protective device.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment, and Emergency Procedures:**

Mount respiratory protective device.

Environmental Precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Methods and Material for Containment and Cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

Ensure good ventilation/exhaustion at the workplace.

Avoid inhalation of spray application of the product.

To remove contaminated clothing and protective equipment before entering eating areas.

To wash hands after use.

Not to eat, drink and smoke in work areas.

Information about fire - and explosion protection: Keep respiratory protective device available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

Control Parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 7727-43-7 Barium Sulfate

WEL Long-term value: 10* 4** mg/m³

*Inhalable dust **Respirable dust

DNELs		
CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
Oral	DNEL Long term systemic effects	0.75 mg/kg/day (consumers)
	DNEL Short term systemic effects	0.75 mg/kg/day (consumers)
Dermal	DNEL Long term systemic effects	3.571 mg/kg bw/24h (consumers)
		8.33 mg/kg bw/24h (workers)
	DNEL Short term systemic effects	3.571 mg/kg/ bw/24h (consumers)
		8.33 mg/kg/ bw/24h (workers)
Inhalative	DNEL Long term systemic effects	12.25 mg/m ³ (workers)
	DNEL Short term systemic effects	12.25 mg/m ³ (workers)
CAS: 7727-43-7 Barium Sulfate		
Oral	DNEL Long term systemic effects	0.75 mg/kg/day (consumers)
	DNEL Short term systemic effects	0.75 mg/kg/day (consumers)
Dermal	DNEL Long term systemic effects	3.571 mg/kg bw/24h (consumers)
		8.33 mg/kg bw/24h (workers)
	DNEL Short term systemic effects	3.571 mg/kg/ bw/24h (consumers)
		8.33 mg/kg/ bw/24h (workers)
Inhalative	DNEL Long term systemic effects	12.25 mg/m ³ (workers)
	DNEL Short term systemic effects	12.25 mg/m ³ (workers)
CAS: 100-51-6 Benzyl alcohol		
Oral	DNEL Long term systemic effects	4 mg/kg/day (consumers)
	DNEL Short term systemic effects	10-40 mg/kg/day (consumers)
Dermal	DNEL Long term systemic effects	4 mg/kg bw/24h (consumers)
		5.5-24.5 mg/kg bw/24h (workers)
	DNEL Short term systemic effects	13.5-43.5 mg/kg/ bw/24h (consumers)
		32-62 mg/kg/ bw/24h (workers)
	DNEL Long term systemic effects	5.4 mg/m ³ (consumers)
		22 mg/m ³ (workers)
	DNEL Short term systemic effects	13.5-43.5 mg/m ³ (consumers)
		110 mg/m ³ (workers)
PNECs		
CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
PNEC water	0.006 mg/l (fresh water)	
	0.0006 mg/l (marine water)	
	0.018 mg/l (intermittent release)	
PNEC sediment	0.0996 mg/kg (marine sediment)	
	0.996 mg/kg (freshwater sediment)	
PNEC STP	10 mg/l (sewage treatment plant)	
PNEC Soil	0.196 mg/kg (soil)	
CAS: 100-51-6 Benzyl Alcohol		
PNEC water	14-16 mg/l (freshwater)	
	14.9-15.1 mg/l (marine water)	
	12.7-17.3 mg/l (intermittent release)	
PNEC sediment	14.47-15.53 mg/kg (marine sediment)	
	9.73-20.27 mg/kg (freshwater sediment)	
PNEC STP	24-54 mg/l (sewage treatment plant)	
PNEC Soil	14.54-15.46 mg/kg (soil)	

Additional information: The lists valid during the making were used as basis.

Exposure Controls

Personal Protective Equipment:

General Protective and Hygienic Measures:

- Keep away from foodstuffs, beverages, and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.

Respiratory Protection:



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of Hands:



Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye Protection:



Tightly sealed goggles.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance	Fluid
Color	According to product specification
Odor	Characteristic
Odor Threshold	Not determined
pH Value	Not determined
Melting Point / Freezing Point	Undetermined
Initial Boiling Point and Boiling Range	320°C
Flash Point	252°C
Flammability (solid, gas)	Not applicable
Decomposition Temp	Not determined
Auto-ignition Temp	Product is not self-igniting

Explosive Properties	Product does not present an explosion hazard
Explosion Limits (Lower)	Not determined
Explosion Limits (Upper)	Not determined
Vapor Pressure	Not determined
Density at 20°C	1.573 g/cm ³
Relative Density	Not determined
Vapor Density	Not determined
Evaporation Rate	Not determined
Solubility in / Miscibility with Water	Not miscible or difficult to mix
Partition Coefficient: N-octanol/Water	Not determined
Solids Content (w/w)	97.6 %

Other information: The provisions of directive 2004/42/CE on VOC apply to this product. Refer to the product label and /or technical data sheet for further information.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No further relevant information available.

Chemical Stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of Hazardous Reactions: No dangerous reactions known.

Conditions to Avoid: No further relevant information available.

Incompatible Materials: No further relevant information available.

Hazardous Decomposition Products: No dangerous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity: Based on available data, the classification criteria are not met.

LD/LC50 Values Relevant for Classification		
CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
Dermal	LD50	>2,000 mg/kg (rat)
CAS: 100-51-6 Benzyl alcohol		
Oral	LD50	500 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)

Primary Irritant Effect:

Skin corrosion/irritation - Causes skin irritation.

Serious eye damage/irritation - Causes serious eye irritation.

Respiratory or skin sensitization - May cause an allergic skin reaction.

CMR Effects (Carcinogenicity, Mutagenicity and Toxicity for Reproduction)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure: Based on available data, the classification criteria are not met.

STOT-repeated exposure: May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Based on available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic Toxicity	
CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane	
EC50/48 h	2.7 mg/l (daphnia magna)
LC50/72 h	9.4 mg/l (fish) (selenastrum capricornutum (algae))
EL50/96 h	1.5 mg/l (algae) (oncorhynchus mykiss (rainbow trout))
CAS: 100-51-6 Benzyl alcohol	
EC50/24 h	390 mg/l (bacterium)
EC50/48 h	230 mg/l (daphnia magna)
EC50/72 h	700 mg/l (algae)
LC50/96 h	460 mg/l (fish)

Persistence and Degradability: No further relevant information available.

Bioaccumulative Potential: No further relevant information available.

Mobility in Soil: No further relevant information available.

Ecotoxicological Effects: Remark: Toxic for fish

Additional Ecological Information

General notes: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms.

Results of PBT and vPvB Assessment: PBT: Not applicable.
vPvB: Not applicable.

Other Adverse Effects: No further relevant information available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Product

Recommendation: Disposal must be made according to official regulations.
Must not be disposed together with household garbage.
Do not allow product to reach sewage system.

European Waste Catalogue: This product is considered hazardous waste as defined by EU Directive 2008/98/EC.

European Waste Catalogue: Recommended identification code 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances.

Uncleaned Packaging

Recommendation: Disposal must be made according to official regulations.
The package should be properly drained.

SECTION 14: TRANSPORT INFORMATION

UN Number

ADR, IMDG, IATA UN3082

UN Proper Shipping Name

ADR 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700))

IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700), MARINE POLLUTANT)

IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700))

Transport Hazard Class(es)

ADR, IMDG, IATA



Class 9 Miscellaneous dangerous substances and articles.

Label 9

Packing Group

ADR, IMDG, IATA III

Environmental Hazards

Product contains environmentally hazardous substances:
 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

Marine Pollutant: Symbol (fish and tree)

Special Marking (ADR): Symbol (fish and tree)

Special Marking (IATA): Symbol (fish and tree)

Special Precautions for User

Warning: Miscellaneous dangerous substances and articles.

Danger Code (Kemler): 90

EMS Number: F-A, S-F

Stowage Category: A

Transport in bulk according to ANNEX II of Marpol and the IBC Code

Not Applicable

Transport/Additional Information:

ADR

Limited Quantities (LQ) 5L

Excepted Quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Transport Category 3

Tunnel Restriction Code -

IMDG

Limited Quantities (LQ) 5L

Excepted Quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation"

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number
 average molecular weight \leq 700), 9, III

SECTION 15: REGULATORY INFORMATION**Safety, Health, and Environmental Regulations/Legislation specific for the Substance or Mixture****Directive 2012/18/EU****Named Dangerous Substances - ANNEX I**

None of the ingredients is listed.

Seveso Category

E2 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements

200 t

Qualifying quantity (tonnes) for the application of upper-tier requirements

500 t

List of Substances Subject to Authorization (ANNEX XIV)

None of the ingredients is listed.

Regulation (EC) No 1907/2006 ANNEX XVII

Conditions of restriction: 3

Waterhazard Class

Water hazard class 2 (Self-assessment): hazardous for water.

Other regulations, limitations, and prohibitive regulations**Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients is listed.

Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant Phrases

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

- Skin corrosion/irritation
- Serious eye damage/eye irritation
- Skin sensitization
- Specific target organ toxicity - repeated exposure
- Hazardous to the aquatic environment – chronic hazard

Abbreviations and Acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2