SAFETY DATA SHEET 2022

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name : ShieldPrime CA

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 : Lacquer

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

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  GHS09 

Signal Word:

Warning

Hazard-determining Components of Labelling:

Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤700) cashew, nutshell liq., oligomeric reaction products with 1-chloro-2,3-epoxypropane bis[4-(2,3-epoxypropoxy)phenyl] propane.

Hazard Statements:

- Causes skin irritation.
- Causes serious eye irritation.
- May cause an allergic skin reaction.
- Toxic to aquatic life with long lasting effects.

Precautionary Statements:

- Avoid breathing vapours.
- 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.

Additional information:
Contains epoxy constituents. May produce an allergic reaction.

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: 25068-38-6 NLP: 500-033-5 Reg.nr.: 01-2119456619-26	Reaction Product: Bisphenol-A-(Epichlorhydrin) Epoxy Resin (number average molecular weight ≤ 700)	50-75%
	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 68413-24-1 Reg.nr.: 01-2119982994-15	Cashew, Nutshell liq., Oligomeric reaction products with 1-chloro-2,3-epoxypropane	10-25%
	Skin Sens. 1, H317	
CAS: 1675-54-3 EINECS: 216-823-5 Reg.nr.: 01-2119456619-26	Bis[4-(2,3-epoxypropoxy) Phenyl] Propane	10-25%
	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 100-51-6 EINECS: 202-859-9 Reg.nr.: 01-2119492630-38	Benzyl alcohol	2.5-10%
	Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2, H319	

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:
Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

Special Hazards arising from the Substance or Mixture:
No further relevant information available.

Advice for Firefighters:
Protective equipment: It might be necessary to use self-contained respiratory protective device.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures:
Not required.

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

Environmental Precautions:
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: No special measures required.

Conditions for Safe Storage, including any incompatibilities:

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s):

No further relevant information 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:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs		
CAS: 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)		
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/m3 (workers)
	DNEL Short term systemic effects	12.25 mg/m3 (workers)
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/m3 (workers)
	DNEL Short term systemic effects	12.25 mg/m3 (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)
Inhalative	DNEL Long term systemic effects	5.4 mg/m3 (consumers)
		22 mg/m3 (workers)
	DNEL Short term systemic effects	13.5-43.5 mg/m3 (consumers)
		110 mg/m3 (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 (fresh water 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 (fresh water) 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 (fresh water 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.
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	205 °C
Flash Point	>100 °C
Flammability (solid, gas)	Not applicable
Ignition Temp	435 °C
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	1.101 g/cm³
Relative Density	Not determined
Vapor Density	Not determined
Evaporation Rate	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)	92.3 %

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: 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane		
Oral	LD50	>2,000 mg/kg (rat)
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 (carcinogenity, 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 - Based on available data, the classification criteria are not met.
Aspiration hazard - Based on available data, the classification criteria are not met.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic Toxicity	
CAS: 25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	
EC50/48 h	1.7 mg/l (daphnia magna)
LC50/96 h	1.5 mg/l (fish)
EL50r/72 h	9.4 mg/l (algae)
CAS: 1675-54-3 bis[4-(2,3-epoxypropoxy)phenyl]propane	
EC50/48 h	2.7 mg/l (daphnia magna)
EC50/72 h	9.4 mg/l (selenastrum capricornutum (algae))
LC50/96 h	1.5 mg/l (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.

Ecotoxical 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 ≤ 700), bis[4-(2,3-epoxypropoxy)phenyl]propane)

IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700), bis[4-(2,3-epox ypropox y)pheny l]propane), MARINE POLLUTANT

IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700), bis[4-(2,3-epoxypropoxy)phenyl]propane)

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 ≤ 700)

Marine Pollutant: Yes
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 ≤ 700), bis[4-(2,3-epoxypropoxy)phenyl] propane) 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.
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
- 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 Harmonised 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
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2