

SAFETY DATA SHEET 2022

SECTION 1: IDENTIFICATION OF MATERIAL AND SUPPLIER

Product Name	: ShieldPoly CV Side A
Other means of Identification	: None
Supplier's Information	
Name	: 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

GHS Ratings:

Inhalation Toxicity	Acute Tox. 4	Gases>2500+<=5000ppm, Vapors>10+<=20mg/l, Dusts & mists>1+<=5mg/l
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation
Eye corrosive	2A	Eye irritant: Subcategory 2A, Reversible in 21 days
Respiratory sensitizer	1	Respiratory sensitizer
Skin sensitizer	1	Skin sensitizer
Carcinogen	2	Limited evidence of human or animal carcinogenicity
Organ toxin single exposure	3	Transient target organ effects- Narcotic effects- Respiratory tract irritation
Organ toxin repeated exposure	2	Presumed to be harmful to human health- Animal studies with significant toxic effects relevant to humans at generally moderate exposure (guidance)- Human evidence in exceptional cases

Label Elements:



Signal Word: **Danger**

GHS Hazards:

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

GHS Precautions:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash exposed skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P314	Get Medical advice/attention if you feel unwell.
P321	Specific treatment (as detailed on this label).
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.
P302+P352	IF ON SKIN: Wash with soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position.
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or a rash occurs: Get medical advice/attention.
P337+P313	Get medical advice/attention.
P342+P311	Call a POISON CENTER or doctor/physician.
P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with applicable regional, national, and local laws and regulations.

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

CHEMICAL NAME	WEIGHT %	CAS No.	OSHA EXPOSURE LIMITS	ACGIH EXPOSURE LIMITS
Poly[oxy(methyl-1,2-ethanediyl)], .alpha.- hydro-.omega.-hydroxy-, polymer with 1,1'- methylenebis[4-isocyanatobenzene]	70 - 80	9048-57-1	OELs not established	OELs not established
Benzene, 1-isocyanato-2-[(4-isocyanatophenyl) methyl]	5 - 10	5873-54-1	OELs not established	OELs not established
4,4'-Methylenediphenyl Diisocyanate	5 - 10	101-68-8	PELs - 0.02 ppm Ceiling PELs - 0.2 mg/m ³ Ceiling	TLV - 0.005 ppm TWA
Propylene Carbonate	1 - 5	108-32-7	OELs not established	OELs not established
Benzene, 1,1'-methylenebis [2-isocyanato]	0.1 - 1	2536-05-2	OELs not established	OELs not established

SECTION 4: FIRST AID MEASURES

Description of first aid measures

- Inhalation:** Move exposed person to fresh air. Get medical attention immediately. Treatment is symptomatic for primary irritation or bronchospasm. If breathing is labored, oxygen should be administered by qualified personnel.
- Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Provided the patient is conscious, wash out mouth with water. Get medical attention if symptoms appear.
- Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
- Skin Contact:** After contact with skin, wash immediately with plenty of warm, soapy water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. A poly-glycol based skin cleanser or corn oil may be more effective than soap and water. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media:

Foam, CO₂, or dry powder. (Note: Water may be used if no other available media is available AND used in copious quantities. Reaction between water and hot material may be vigorous. Prevent washings from entering water courses, keep fire exposed containers cool by spraying with water.)

Caution:

Due to reaction with water producing CO₂ gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may burst if overheated.

Hazardous decomposition products:

Combustion products may include carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN.

Special protective actions for fire-fighters:

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.

SECTION 6: ACCIDENTAL RELEASE MEASURES

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk-through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements, or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

Put on appropriate personal protective equipment (see Section 8). Eating, drinking, and smoking should be prohibited in areas where material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.

Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and may be hazardous.

Material is to be stored in accordance with local regulations. Store in original container protected from direct sunlight in a dry and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not reseal contaminated containers. Uncontaminated containers, free of moisture, may be resealed only after placing under a nitrogen blanket. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Unsuitable containers: Do not store in containers made of copper, copper alloys or galvanized surfaces.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient Data:

CHEMICAL NAME / CAS No.	OSHA EXPOSURE LIMITS	ACGIH EXPOSURE LIMITS	Other Exposure Limits
Poly[oxy(methyl-1,2-ethanediy)], .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1'-methylenebis [4-isocyanatobenzene] 9048-57-1	OELs not established	OELs not established	
Benzene, 1-isocyanato-2-[(4-isocyanatophenyl) methyl] 5873-54-1	OELs not established	OELs not established	
4,4'-Methylenediphenyl Diisocyanate 101-68-8	PELs - 0.02 ppm Ceiling PELs - 0.2 mg/m ³ Ceiling	TLV - 0.005 ppm TWA (listed under Methylene bisphenyl isocyanate (MDI))	
Propylene Carbonate 108-32-7	OELs not established	OELs not established	
Benzene, 1,1'-methylenebis [2-isocyanato] 2536-05-2	OELs not established	OELs not established	

Engineering Controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Smell is not an adequate indicator of hazard.

Ventilation: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Protective Gear: In case of inadequate ventilation, wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Pale yellow to amber
Vapor Pressure	No Data
pH	No Data
Freezing Point	No Data
Evaporation Rate	No Data
Explosive Limits	No Data
Vapor Density	No Data
Solubility	No Data
Boiling Range	No Data
Decomposition Temperature	No Data
% Weight Volatile (VOC)	0.00
Odor	Faint odor
Odor Threshold	No Data
Melting Point	No Data
Flash Point	226°F, 108°C
Flammability	No Data
Vapor Pressure	No Data
Specific Gravity	1.10
Partition Coefficient (N-octanol / Water)	No Data
Auto Ignition Temperature	No Data
Viscosity	N/A

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable at room temperature. No specific test data related to reactivity is available for this product or its ingredients.

Hazardous Reactions: Reaction with water (moisture) produces CO₂ gas. An exothermic reaction with materials containing active hydrogen groups can occur. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. This material is insoluble with, and heavier than, water and sinks to the bottom, but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface by liberating carbon dioxide.

The material will react with water, alcohols, amines, bases, and acids.

SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation Toxicity LC50:	58mg/L
Routes of Entry:	Inhalation, Skin Contact, Eye Contact
Target Organs:	Eyes, Lungs, Skin, Respiratory System
Effects of Overexposure:	No Data

Carcinogenicity:

CAS Number	Description	% Weight	Carcinogen Rating
101-68-8	4,4'-Methylenediphenyl Diisocyanate	5 - 10	4,4'-Methylenediphenyl Diisocyanate
2536-05-2	Benzene, 1,1'-methylenebis [2-isocyanato]	0.1 - 1	Benzene, 1,1'-methylenebis[2- isocyanato]

SECTION 12: ECOLOGICAL INFORMATION

Only component information is listed, if any. No testing has been performed on this mixture as it relates to ecological impact.

Component Ecotoxicity Propylene Carbonate

72 Hr EC50 *Desmodesmus subspicatus*: >500 mg/L; 96 Hr LC50 *Cyprinus carpio*: >1000 mg/L [semi-static];
 48 Hr EC50 *Daphnia magna*: >500 mg/L

SECTION 13: DISPOSAL CONSIDERATIONS

The generation of waste should be avoided or minimized by using excess product in an alternate, beneficial application wherever possible.

Empty containers may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national, and local laws and regulations.

SECTION 14: TRANSPORT INFORMATION

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT	Not Regulated			
IATA	Not Regulated			
IMDG	Not Regulated			

SECTION 15: REGULATORY INFORMATION

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): **WARNING!**

This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin: **None**

WHMIS Symbol(s)



All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30, unless listed below: **None**

This product contains the following substance(s), which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and which are listed in 40 CFR 372:

101-68-8

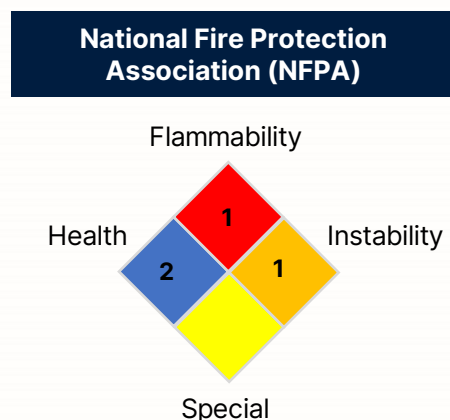
4,4'-Methylenediphenyl diisocyanate

5 - 10%

SECTION 16: OTHER INFORMATION

The customer is responsible for determining the proper PPE code for this material within their respective process.

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)			
Health	*	2	HMIS & NFPA Hazard Rating Legend * = Chronic Health Hazard 0 = INSIGNIFICANT 1 = SLIGHT 2 = MODERATE 3 = HIGH
Flammability		1	
Physical Hazard		1	
Personal Protection		X	



Disclaimer:

The information contained herein is, to the best of our knowledge and belief, accurate and current as of the date of the MSDS. However, since the conditions of handling and use are beyond our control; we make no guarantee of results and assume the liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Finding determination of solubility of chemical is the sole responsibility of the user. No representations or warranties, either expressed implied of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal and local laws and regulations.