

## SAFETY DATA SHEET 2025

### SECTION 1: IDENTIFICATION OF MATERIAL AND SUPPLIER

<b>Product Name</b>	: ShieldPatch™ X1 Part A
<b>Other means of Identification</b>	: Isocyanate Component
<b>Relevant Identified Uses</b>	: A high build solventless coating when used with Part B component.
<b>Supplier's Information</b>	
<b>Information</b>	: ShieldCrete® International
<b>Company Name</b>	: ShieldCrete® International Sdn Bhd
<b>Address</b>	: No. 14, Jalan Anggerik Mokara 31/60, Kota Kemuning Industry Area, 40460 Shah Alam, Selangor, Malaysia
<b>Contact Numbers</b>	: +6(03) 5131 2101
<b>Email</b>	: info@shieldcreteinternational.com
<b>Website</b>	: www.shieldcreteinternational.com

### SECTION 2: HAZARDS IDENTIFICATION

<b>Statement of Hazardous Nature:</b>	Classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
<b>HSNO Classification:</b>	6.5A, 6.5B, 6.9A
<b>HSNO Approval Number:</b>	HSR002670

#### HAZARD AND PRECAUTIONARY STATEMENTS

<b>Hazard:</b>	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic reaction. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.
<b>Prevention:</b>	Read Safety Data Sheet before use. Avoid breathing dust/fume/gas/mist/vapors/spray. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
<b>Response:</b>	If exposed, call a Poison Centre or doctor/physician. Specific treatment – see first aid instruction on this label. Get medical advice/attention if you feel unwell.  <b>If Inhaled</b> – If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms, call a poison center or doctor/physician.  <b>If on Skin</b> – Wash with plenty of soap and water. If skin irritation or rash occurs, get medical advice/attention. Use a cleansing agent on skin. Wash contaminated clothing before reuse.
<b>In Case of Fire:</b>	Use carbon dioxide, dry chemical, foam. For large scale fires, alcohol resistant foams are preferred if available. General purpose synthetic foams or protein foams may function, but much less effectively. Water may be used as a blanket for fire extinguishment. If water is used, it should be used in very large quantities. The reaction between water and isocyanate may be vigorous. If possible, contain fire run off water.
<b>Storage:</b>	Store locked up.
<b>Disposal:</b>	Recycle wherever possible. Bury residue in an authorized landfill. Recycle containers if possible. If not possible, dispose of in an authorized landfill. Containers may still present a chemical hazard/danger when empty.

If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use and bury at an authorized landfill.

Contact appropriate Waste Management Company for guidance and disposal options in your area. Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

## SECTION 3: COMPOSITES / INFORMATION ON INGREDIENTS

### MIXTURES

INGREDIENTS	WEIGHT %	CAS No.
Polymethylene polyphenyl isocyanate	100	9016-87-9
containing 4,4-methylene bisphenyl isocyanate		101-68-8

## SECTION 4: FIRST AID MEASURES

### EMERGENCY AND FIRST AID PROCEDURES

**Inhalation:** Remove to fresh air. If not breathing, apply resuscitation. If breathing is difficult, oxygen should be administered by qualified personnel. Call a doctor and/or transport to an emergency hospital.

**Ingestion:** Never give fluids or induce vomiting if patient is unconscious or is having convulsions. If poisoning occurs, contact a doctor or Poisons Information Centre. If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Eye Contact:** Flush eyes with plenty of water. Materials containing MDI may react with the moisture of the eye forming a thick material which may be difficult to wash from the eyes.

**Skin Contact:** In case of skin contact, immediately flush skin with plenty of water (warm, soapy water, if available) for at least 15 minutes while removing contaminated clothing and shoes.

**Note to Physician:** The manifestations of respiratory symptoms, including pulmonary oedema, resulting from acute exposure may be delayed. No specific antidote. Supportive Care. Treatment based on judgement of the doctor in response to reactions of the patient.

## SECTION 5: FIRE FIGHTING MEASURES

### Extinguishing Media:

Carbon dioxide, dry chemical, foam. For large scale fires, alcohol resistant foams are preferred if available. General purpose synthetic foams or protein foams may function, but much less effectively. Water may be used as a blanket for fire extinguishment. If water is used, it should be used in very large quantities. The reaction between water and isocyanate may be vigorous. If possible, contain fire run off water.

### Special Fire Fighting Procedures:

Down-wind personnel must be evacuated. Do not reseal contaminated containers. A chemical reaction generating carbon dioxide may occur resulting in rupture of the container. Dense smoke emitted when burned without sufficient oxygen. When using water spray, boil-over may occur when the product temperature reaches the boiling point of water and the reaction forming carbon dioxide will accelerate (tank-type scenarios, not spills).

### Unusual Fire and Explosion Hazards:

Isocyanate vapor and mist, carbon dioxide, carbon monoxide, nitrogen oxides and traces of hydrogen cyanide. People who are fighting isocyanate fires must be protected against isocyanate vapors and hazardous combustion products by wearing positive pressure self-contained breathing apparatus and full protective clothing.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### SPILLS AND DISPOSAL

#### Steps to be taken in case material is released or spilled:

Evacuate and ventilate spill area, contain spill, e.g., by diking, to prevent entry into sewers, drains or water systems. Wear full protective equipment including respiratory equipment during clean up.

**Major Spill:**

If transportation spill, dial "111" for police or fire brigade. If temporary control of isocyanate vapor is required a blanket of protein foam (available at most fire brigades) may be placed over the spill. Large quantities may be pumped into closed but not sealed containers for disposal.

**Minor Spill:**

Absorb the isocyanate with sawdust or other absorbent and shovel into open top containers. Do not make pressure tight. Transport to well-ventilated area (outside) and treat with neutralizing solution consisting of a mixture of water and 3-8% concentrated ammonium hydroxide or 5-10% sodium carbonate. Add about 10 parts of neutralizer per part of isocyanate with mixing. Allow to stand for 48 hours letting evolved carbon dioxide escape.

**Clean Up:**

Decontaminate floor using water/ammonia solution with 1-2% added detergent. Allow to stand over affected area for at least 10 minutes. Cover mops and brooms with plastic and dispose properly (often by incineration).

**Waste Disposal Method:**

Any disposal of product, drain and rinse liquid, or containers, must be in accordance with all local government regulations. Liquids are usually incinerated in an approved facility. Solids are usually also incinerated or land-filled in approved facilities. Empty plastic or steel drums should first be decontaminated by filling with water. Let drums stand unsealed for at least 48 hours. Before disposal drums should be drained, triple rinsed with water, and holed or crushed to prevent reuse. The other option is to offer the undamaged, empty decontaminated container to a qualified reconditioner or recycler. A suggested method of disposal of drain and rinse liquids is by treatment in an approved wastewater treatment system. Suggested methods for disposal of plastic drums are either disposal in an approved landfill after shredding or incineration in an approved industrial incinerator or other appropriate incinerator facility. Steel drums are commonly crushed for disposal and sent to an approved landfill.

Chemical additions, processing, storage, or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Waste characterization and disposal compliance are the responsibility solely of the party generating the waste or deciding to discard or dispose of the material. None of these waste management options should be considered "arranging for disposal".

**SECTION 7: HANDLING AND STORAGE****SPECIAL PRECAUTIONS AND STORAGE DATA**

**Special Sensitivity (Heat, Light, Moisture):** Store indoors at 14-41°C in original, unopened containers. Protect from atmospheric moisture. Replace outage with inert dry gas nitrogen.

**STORAGE AND TRANSPORT**

**Storage Temperature (Min/Max):** Store indoors at 14-41°C.

**Average Shelf Life:** At least 6 months when stored in tightly sealed containers at 20°C.

**SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION****EXPOSURE STANDARDS**

**Threshold Limit Value – Time Weighted Average (TLV-TWA):** 0.02 mg/m<sup>3</sup>

**Threshold Limit Value – Short Term Exposure Limit (TLV-STEL):** 0.07 mg/m<sup>3</sup>

**Threshold Limit Value – Ceiling (TLV-C):** Not available

**ENGINEERING CONTROLS**

**Ventilation:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure standards.

**PERSONAL PROTECTION**

**Skin and Eye Protection:** Use approved safety glasses. If vapor exposure causes eye discomfort, use a full-face respirator. Selection and use of personal protective equipment should be in accordance with the recommendations in one or more of the relevant Australian Standards.

Use protective clothing impervious to this material. Selection of specific items such as face shield, gloves, boots, apron or full body suit will depend on operation. Remove contaminated clothing immediately, wash skin area with soap and water (warm soapy water, if available) and launder clothing before reuse.

**Respiratory Protection:** Atmospheric levels should be maintained below the exposure standard. When respiratory protection is required for certain operations, use an approved positive pressure supplied-air respirator. For emergency and other conditions where the exposure standard may be greatly exceeded, use an approved positive pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

#### FLAMMABILITY

**Flammability Limits:** Will support combustion. Toxic fumes are released in fire situations.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

<b>Appearance</b>	Pale yellow
<b>Odor</b>	Oil like odor
<b>Boiling Point</b>	200°C @ 5mm Hg
<b>Vapor Pressure</b>	Less than 0.00001 mmHg @ 25°C
<b>Specific Gravity</b>	1.2 g/ml @ 25°C
<b>Flash Point</b>	Greater than 200°C
<b>% Volatile by Volume</b>	Nil
<b>Flammability Limits</b>	Not determined
<b>Solubility in Water</b>	Reacts

## SECTION 10: STABILITY AND REACTIVITY

### REACTIVITY DATA

**Stability:** Maintain material at a temperature in the range of 24-41°C.

**Polymerization:** May occur with incompatible reactants, especially strong bases, water, or temperatures over 160°C.

**Incompatibility (Materials to avoid):** Water, acid, bases, alcohols, metal compounds and surface-active materials. Avoid water as it reacts to form heat, carbon dioxide and insoluble urea. The combined effect of the carbon dioxide and heat can produce enough pressure to rupture a closed container. The reaction with water is slow at temperatures less than 49°C but accelerated at higher temperature and in the presence of the above-mentioned materials. Some reactions are violent.

**Hazardous Decomposition Products:** Excessive heating can produce isocyanate vapor, mist and other hazardous organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

### HEALTH EFFECTS

#### Acute:

**Skin and Eyes:** Prolonged or repeated exposure may cause skin irritation. May stain the skin. Skin contact may result in allergic skin reactions or respiratory sensitization but is not expected to result in absorption of amounts sufficient to cause other adverse effects. May cause slight eye irritation. Corneal injury is unlikely.

**Ingestion:** Single dose oral toxicity is considered to be extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling operations.

**Inhaled:** At room temperature, vapors are minimal due to low vapor pressure. However certain operations may generate vapor or aerosol concentrations sufficient to cause irritation or other adverse effects. Such operations include those in which the material is heated, sprayed or otherwise mechanically dispersed such as drumming, venting or pumping. Excessive exposure may cause irritation of the eyes, upper respiratory tract and lungs. May cause respiratory sensitization in susceptible individuals. MDI concentrations below the exposure standards may cause allergic respiratory reactions in individuals already sensitized. Symptoms may include coughing, difficult breathing and a feeling of tightness in the chest. Effects may be delayed. Impaired lung function (decreased ventilatory capacity) has been associated with over-exposure to isocyanates.

**Chronic:**

**Human Effects of Over Exposure:** Tissue injury in the upper respiratory tract and lungs has been observed in laboratory animals after repeated excessive exposures to MDI/Polymeric MDI aerosols.

**SECTION 12: ECOLOGICAL INFORMATION**

No data available.

**SECTION 13: DISPOSAL CONSIDERATIONS****DISPOSAL STATEMENT**

Recycle wherever possible.

Bury residue in an authorized landfill.

Recycle containers if possible. If not possible, dispose of in an authorized landfill.

Containers may still present a chemical hazard/danger when empty.

If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorized landfill.

Contact appropriate Waste Management Company for guidance and disposal options in your area.

Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

**SECTION 14: TRANSPORT INFORMATION**

<b>U.N. No:</b>	Not applicable
<b>Haz Chem Code:</b>	Not applicable
<b>Dangerous Goods Class:</b>	Not classified dangerous goods
<b>Proper Shipping Name:</b>	Not applicable
<b>Packaging Group:</b>	Not applicable
<b>Toxic Substances Schedule:</b>	None allocated

**SECTION 15: REGULATORY INFORMATION**

<b>HSNO Approval Number:</b>	HSR002670
<b>HSNO Classification:</b>	6.5A, 6.5B, 6.9A

**SECTION 16: OTHER INFORMATION**

This document was reviewed and revised on 21 November 2023.