



MATERIAL SAFETY DATA SHEET

Staycell® 245-2.0, Component A

1. Product and Company Identification			
Manufacturer Preferred Solutions, Inc. 7819 Broadview Road Cleveland, OH 44131		Manufacturer Emergency Contacts & Phone Number CHEMTREC: 800-424-9300	
Company Contact: Jack S. Stahl Telephone Number: 800-522-4522 Fax Number: 216-642-1166			
Revised Date: 05/26/09. Supersedes MSDS issued 04/23/08			
Product Name: Staycell® 245-2.0, Component A			
2. Composition/Information On Ingredients			
Ingredient Name	CAS Number		Percent of Total Weight
diphenylmethane diisocyanate (MDI) Mixed Isomers	26447-40-5		1 - 5
4-4'-diphenylmethane diisocyanate (MDI)	101-68-8		30 - 60
polymeric diphenylmethane diisocyanate (pMDI)	9016-87-9		30 - 60
EMERGENCY OVERVIEW			
WARNING: Respiratory Sensitizer, Skin Sensitizer Reacts slowly with water to produce carbon dioxide, which may rupture closed containers. This reaction accelerates at higher temperatures.			
Appearance/Odor: Brown liquid, musty odor			
3. Hazards Identification			
Primary Route(s) of Entry Skin Contact, Inhalation.			
Eye Hazards Causes irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing. Prolonged contact may cause conjunctivitis.			
Skin Hazards Causes irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove. May cause skin discolorization. Prolonged contact can cause reddening, swelling, rash, and, in some cases, skin sensitization. Animal tests and other research indicate that skin contact with MDI can play a role in causing isocyanate sensitization and respiratory reaction.			
Ingestion Hazards May cause irritation of the mouth, throat, and digestive tract. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.			



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3. Hazards Identification - Continued
<u>Inhalations Hazards</u> Short-term inhalation exposure to isocyanates can cause respiratory and mucous membrane irritation. Symptoms include eye and nose irritation, dry or sore throat, runny nose, shortness of breath, wheezing and laryngitis. Coughing with chest pain or tightness may also occur. These symptoms may occur during exposure or may be delayed several hours. High aerosol concentrations could cause inflammation of the lung tissue (chemical pneumonitis), chemical bronchitis with severe asthma-like wheezing, severe coughing spasms and accumulation of fluid in the lungs (pulmonary edema), which could prove fatal. Symptoms of pulmonary edema may not appear until several hours after exposure and are aggravated by physical exertion. Prolonged or repeated overexposure or a single large dose may cause certain individuals to develop sensitization to diisocyanates (asthma or asthma-like symptoms). Sensitization can be permanent. Chronic overexposure may cause lung damage (including fibrosis, decrease in lung function) that may be permanent.
4. First Aid Measures
<u>Eye</u> In case of contact, hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
<u>Skin</u> Remove contaminated clothing and shoes. Wash clothing before reuse. Wash affected areas with soap and water. Get medical attention immediately if irritation (redness, rash, blistering) develops and persists.
<u>Ingestion</u> DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious victim. Have victim rinse mouth thoroughly with water. If victim is fully conscious, give 1-2 cups of water to dilute material in stomach. Get medical attention immediately.
<u>Inhalation</u> Remove the person from the contaminated area to fresh air. If breathing is difficult, give oxygen. Do not allow victim to move about unnecessarily. Symptoms of pulmonary edema or asthmatic symptoms may develop and may be immediate or delayed up to several hours. Get medical attention immediately.
5. Fire Fighting Measures
Flash Point: >230° F. Flash Point Method: closed cup Lower Explosive Limit: not available Upper Explosive Limit: not available
<u>Fire and Explosion Hazards</u> Special Remarks on Explosion Hazards Due to reaction with water producing CO ₂ -gas, a hazardous build-up of pressure could result if contaminated containers are resealed. Containers may burst if over heated.
<u>Extinguishing Media</u> Use an extinguishing media suitable for surrounding fire.
<u>Fire Fighting Instructions</u> Firefighters should wear NFPA compliant structural firefighting protective equipment, including self-contained breathing apparatus and helmet, hood, boots, and gloves. Avoid contact with product. Decontaminate equipment and protective clothing prior to reuse. If material is spilled or released and exposure likely, evacuate area and fight fire from a safe distance or a protected location.



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6. Accidental Release Measures
Immediately contact emergency personnel. Evacuate the area and keep upwind to avoid inhalation of vapors. Isolate the area and prevent access. Eliminate all ignition sources. Use appropriate personal protective equipment (PPE). Ventilate area. Contain spill to avoid runoff to waterways and sewers. Cleanup should only be conducted by trained personnel.
6. Accidental Release Measures - Continued
Neutralize small spills with decontaminant. Remove and properly dispose of residue. Contain and absorb large spills onto an inert, non-flammable absorbent carrier (such as earth or sand). Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spill area clean with liquid decontaminant. Test atmosphere for MDI. Notify applicable governmental authorities if release is reportable. The CERCLA RQ for MDI is 5,000 pounds.
7. Handling and Storage
Handling and Storage Precautions Keep containers tightly sealed and stored at 50° to 75°F for maximum shelf life. Storage temperatures must not exceed 85°F. Do not store in direct sunlight. Open the container slowly to allow any pressure to be released before removing the bung. Keep drums tightly sealed when not in use to avoid contamination. Water, solvents or oil in the liquid components will degrade foam quality. Protect from heat, sparks and open flame. Do not cut or weld on or near this container. Do not smoke near container. Do not store near food or feed. Shelf Life Staycell® 245-2.0, Component A is stable for six (6) months when stored in tightly sealed drums at 50° to 75°F.
8. Exposure Controls/Personal Protection
Engineering Controls Use with adequate ventilation. When used outdoors, stay well away from building air intakes or close the intakes to prevent product from entering building. Eye/Face Protection Safety glasses with side shields or goggles recommended. If there is a potential for splashing, use full face shield over safety glasses or goggles. Skin Protection Avoid all skin contact. Use with chemical-protective gloves and clothing to prevent excessive skin contact. Chemical-resistant gloves made of nitrile, neoprene or butyl rubber can be used. Animal tests and other research indicate that skin contact with MDI can play a role in causing isocyanate sensitization and respiratory reaction. Respiratory Protection The level of respiratory protection needed should be based on the evaluation of chemical exposures by a health or safety professional. If required, use a NIOSH-approved full face piece air-purifying respirator with organic vapor cartridge or supplied air respirator. Ingredient(s) - Exposure Limits 4-4'-diphenylmethane diisocyanate (MDI) ACGIH TLV-TWA 0.005 ppm OSHA PEL-CEILING 0.02 ppm
9. Physical and Chemical Properties
Appearance: Brown liquid

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<p>Odor: Slightly musty Chemical Type: Mixture Physical State: Liquid</p>
<p>9. Physical and Chemical Properties Continued</p>
<p>Boiling Point: 208-300° C. Specific Gravity: 1.24 @ 25° C. Vapor Pressure: <0.0001mmHg@25° C. Vapor Density: 8.5 pH Factor: not determined Solubility: Insoluble. Reacts with water.</p>
<p>10. Stability and Reactivity</p>
<p>Conditions to Avoid (Stability) Stable at room temperature. Reacts slowly with water to produce carbon dioxide gas. This reaction accelerates at higher temperatures and may cause closed container to burst. Avoid high temperatures.</p> <p>Incompatible Materials Avoid contact with water, amines, alcohols, acids, bases, metal compounds, amides, phenols, mercaptans, urethanes, ureas, and surface active compounds.</p> <p>Hazardous Decomposition Products Combustion products may include hydrogen cyanide, carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke, isocyanate, isocyanic acid and other undetermined compounds.</p> <p>By Reaction with Water: 4,4'-Methylene dianiline may be formed.</p> <p>Conditions To Avoid (Polymerization) Polymerization may occur at elevated temperatures in the presence of alkalis, tertiary amines and metal compounds.</p>
<p>11. Toxicological Information</p>
<p>Miscellaneous Toxicological Information Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredients are summarized below.</p> <p>Ingredients(s) - Toxicological Data 4-4'-diphenylmethane diisocyanate (MDI) oral-rat LD50: >5000 mg/kg oral-mouse LD50: 2200 mg/kg dermal-rabbit LD50: >5000 mg/kg inhal-rat LC50: 490 mg/m³ 4-hr exposure inhal-rat LC50: 2,240 mg/m³ 1-hr exposure polymeric diphenylmethane diisocyanate (pMDI) oral-rat LD50: >5000 mg/kg dermal-rabbit LD50: >5000 mg/kg inhal-rat LC50: 0.49mg/l (4 hour/hours)</p>
<p>12. Ecological Information No specific information available.</p>
<p>13. Disposal Considerations Dispose in accordance with applicable federal, state and local government regulations. Incineration is the preferred method.</p>
<p>14. Transport Information Ground or Water Domestic Voyage</p>



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Not Restricted if shipped in containers <3,780 kg (8333 pounds)

May be restricted if shipped in containers > 3,780 kg (8333 pounds), above this weight call PSI to verify

14. Transport Information Continued

that if it exceeds RQ:

US UN3082, RQ, Environmentally hazardous substance, liquid, n.o.s., (4,4"-Diphenylmethane Diisocyanate (MDI), 9

Canada Not Restricted

IMDG Not Restricted

IATA Not Restricted

15. Regulatory Information

Sara Hazard Classes

Acute Health Hazard
Chronic Health Hazard

SARA Section 304 Reportable Quantity: 5000

SARA Title III - Section 313 Form "R"/TRI Reportable Chemical

Ingredient(s) - U.S. Regulatory Information

4-4'-diphenylmethane diisocyanate (MDI)
SARA Title III - Section 313 Form "R"/TRI Reportable chemical
polymeric diphenylmethane diisocyanate (pMDI)
SARA Title III - Section 313 Form "R"/TRI Reportable chemical

Ingredient(s) - State Regulations

4-4'-diphenylmethane diisocyanate (MDI)
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
Pennsylvania - Workplace Hazard
Massachusetts - Hazardous Substance
New York City - Hazardous Substance
polymeric diphenylmethane diisocyanate (pMDI)
New Jersey - Workplace Hazard
New Jersey - Environmental Hazard
New Jersey - Special Hazard



Canadian Regulatory Information

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: D1A - Very Toxic, D2A - Very Toxic and D2B - Toxic

Ingredient(s) - Canadian Regulatory Information

4-4'-diphenylmethane diisocyanate (MDI)
WHMIS - Ingredient Disclosure List

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WHMIS - Canada (Pictograms)	
	
HMIS	
HEALTH	*2
FLAMMABILITY	1
REACTIVITY	1
PERSONAL PROTECTION	
16. Other Information	
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