



HZO GUARDIAN PLUS™ (PARYLENE C) MATERIAL SAFETY DATA SHEET (MSDS)

1. Product Identification			
Trade Name	HZO Guardian Plus™ (Parylene C)	HMIS Code	Health = 1
General Use	Coating Material		Flammability = 1
Supplier/ Manufacturer	HZO, Inc. 5151 McCrimmon Parkway Morrisville, NC 27513, USA Telephone: +1-919-439-0505		Reactivity = 0
			Protective Equipment = C

2. Composition/Information on Ingredients		
Identity	CAS No	Wt%
Dichloro[2.2]paracyclophane	28804-46-8 / 10366-05-9	>90%
Chloro[2.2]paracyclophane	56486-91-0	<10%
Trichloro[2.2]paracyclophane	29716-49-2	<10%
Tetrachloro[2.2]paracyclophane	30501-29-2	<10%
[2.2]paracyclophane	1633-22-3	<2%

3. Hazard Identification
<p>EMERGENCY OVERVIEW: This product is a white, granular solid which has a slight organic odor. Health Hazards: There are no known toxicity issues related to this product under general exposure. Possible health hazard could result in irritation to the eyes, mucous membrane, and skin due to over-exposure to this product. Flammability Hazard: It can present a slight fire hazard, as it may ignite and burn if exposed to extremely high temperatures. Thermal decomposition of this product can produce irritating vapors and toxic gases (i.e. carbon monoxide, hydrogen chloride, and carbon dioxide). Ensure that the area is well-ventilated and that you are in compliance with all local, state, federal and international regulations. Reactivity Hazards: Negligible. Emergency Recommendations: Emergency responders are advised to wear personal protective equipment suitable for the situation to which they are responding.</p>

4. First-Aid Measures	
Inhalation	Dust or particles of this product may be irritating to the nose, throat, and other tissues in the respiratory system; if material is inhaled, seek fresh air immediately.
Eye	If this product enters the eye, open victim's eyes under gently running water and flush for 15 minutes and seek medical attention.
Skin	If this material contaminates the skin, remove with soap and running water. If skin irritation develops, flush affected area with running water for 15 minutes and seek medical attention.
Ingestion	If material is swallowed, rinse mouth thoroughly with water and CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION. DO NOT INDUCE VOMITING.

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5. Fire-Fighting Measures	
Fire Extinguishing Materials	Water, Foam, Halon, Carbon Dioxide, any "ABC" class.
Unusual Fire and Explosion Hazards	This product poses a slight fire hazard at elevated temperatures. When involved in a fire, this material may decompose and produce irritating vapors, acrid smoke and toxic gases.
Special Fire-Fighting Procedures	Incipient fire responders should wear eye protection. Structural fire fighters should wear protective clothing and self-contained breathing apparatus.
Note: Be cautious that direct spray of water or foam into burning molten material may cause spattering and spread the fire.	

6. Accidental Release Measures	
Spill and Leak Response: Clean up with vacuum or a damp sponge or polypads; avoid the generation of dust. Rinse area with soap and water solution, followed by a water rinse.	

7. Handling And Storage	
Handling	Wash hands thoroughly after the handling. Do not eat, drink, smoke, or apply cosmetics while handling the material. Avoid breathing the dusts generated and wipe-down area routinely to avoid the accumulation of dusts.
Storage	Store in the original container and keep it in a cool, dry location, away from direct sunlight, or sources of intense heat.

8. Exposure Controls/Personal Protection	
Ventilation and Engineering Controls: Use with adequate ventilation. Use a mechanical fan or vent area to outside.	

Personal Protective Equipment	
Eye Protection	Splash goggles or safety glasses.
Skin Protection	Impervious plastics or synthetic rubber-made.
Body Protection	Full-body chemical protective clothing is recommended for response to any chemical emergency.
Respiratory Protection	Use a NIOSH/MSHA approved air-purifying respirator with organic vapor cartridge and dust pre-filter in high dust concentration.

9. Physical/Chemical Properties			
Vapor Density (air = 1)	Not Applicable	Evaporation Rate (nBuAc = 1)	Not Applicable
Specific Gravity (water = 1)	Not determined	Melting point	166 to 175 °C
Solubility in Water	Insoluble	Boiling Point	Not Applicable
Vapor Pressure	Not Applicable	pH	Not Applicable
Odor Threshold	Not Determined	Bulk Density	N/A

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10. Stability and Reactivity	
Stability	Stable
Hazardous Reactions	Strong oxidizing agents, strong acids, strong bases
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, hydrogen chloride
Conditions to Avoid	Contact with or exposure to incompatible chemicals, elevated temperatures, sparks, flames.

11. Toxicological Information	
Suspected Cancer Agent	No component of this product is considered or suspected to be a cancer-causing agent by any Federal or International agency.
Sensitization to the Product	No component of this product is known to be a skin or respiratory sensitizer.
Reproductive Toxicity	The reproductive effects of this product and its components have not been thoroughly investigated.
Biological Exposure Indices (BEIs)	Currently, there are no Biological Exposure Indices (BEIs) determined for the components of this product.

12. Ecological Information	
Environment stability: This product will degrade slowly under ambient environment conditions.	

13. Disposal Considerations	
Bury in an appropriate landfill subject to regulations of local, state and/or federal government. Do not incinerate.	

14. Transportation Information	
Road Transport ADR/RID	Not hazardous for transport.
Air Transport ICAO/IATA	Not hazardous for transport.
Maritime Transport IMO/IMDG	Not hazardous for transport.

15. Regulatory Information	
TSCA Status: All components of this product are listed on the TSCA inventory.	

16. Other Information	
The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. HZO, Inc. assumes no responsibility for injury to the vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, HZO, Inc. assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in his use of the material.	

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