

MATERIAL SAFETY DATA SHEET

KlingStone Paths Klear

1. PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME: KlingStone Paths

PRODUCT NAME: Klear

DISTRIBUTED BY

KlingStone Paths, LLC

235 Pigeon Street

Waynesville, NC 28786

800-942-5151 US/Canada * 828-456-9970 International

24 HOUR EMERGENCY TELEPHONE NUMBER

Chemtrec: United States 800-424-9300

International 703-527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt.%</u>	<u>CAS</u>
Isophorone Diisocyanate (IPDI)	20 - 25	4098-71-9
Isophorone Diisocyanate Prepolymer	> 60	Not disclosed
1,3-Dioxolan-2-one, 4-methyl-	< 15	108-32-7

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear to yellow liquid.

IMMEDIATE CONCERNS: Irritating to eyes, respiratory system, and skin. Can irritate and burn the eyes, causing potential permanent damage. Harmful if vapors and mists are inhaled.

POTENTIAL HEALTH EFFECTS

EYES: Severe eye irritant. Can cause permanent damage.

SKIN: Prolonged contact can cause reddening, swelling, rash or blistering.

INGESTION: Ingestion could result in irritation and corrosive action in the mouth, stomach tissue and digestive tract. These irritations would likely be followed by vomiting and cramps.

INHALATION: Inhalation of vapors or mist at concentrations above the TLV can cause respiratory tract irritation. (nose, throat, lungs) Chronic inhalation can result in sensitization.

MEDICAL CONDITIONS AGGRAVATED: Asthma, other respiratory disorders (bronchitis, emphysema, bronchia hyperreactivity), skin allergies, eczema.

ROUTES OF ENTRY: Inhalation, skin contact, eye contact, ingestion.

SENSITIZATION: Any individual with isocyanate sensitization should not be exposed to this product. These individuals can react to exposure well below the TLV. Symptoms can occur immediately or several hours after exposure.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN: Remove contaminated clothing. Wash affected areas thoroughly with soap and water. Wash clothing thoroughly before reuse. Get immediate medical attention.

INGESTION: Do not induce vomiting. Never give anything by mouth to a drowsy or unconscious person. If the individual is conscious, rinse mouth with water. Give 1 to 2 cups of water to drink. Get immediate medical attention.

INHALATION: Remove individual from exposure, keep warm and at rest. If respiratory irritation or other symptoms develop, get medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: > 200 °F (93.3 °C) - Closed Cup

EXTINGUISHING MEDIA: Alcohol foam, Dry Chemical, Carbon Dioxide, Water Fog or Spray.

HAZARDOUS COMBUSTION PRODUCTS: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

FIRE FIGHTING PROCEDURES: Isolate fuel supply from fire. Use water spray to cool fire-exposed surfaces and containers. Fire fighters should wear self-contained breathing apparatus in addition to emergency fire fighting protective clothing.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Clean up spills wearing proper personal protective equipment. (See section 8) Absorb with dry chemical absorbent, earth, sand, or any other inert material. Place in a chemical waste container. Move to outside well-ventilated area.

LARGE SPILL: Eliminate all ignition sources. Evacuate and ventilate the area. Create a dike or trench to contain materials. Prevent entry into waterways, sewers, basements or confined areas. Clean-up personnel should wear appropriate personal protection equipment. (see section 8) Absorb with dry chemical absorbent, earth, sand, or any other inert material. Place in a chemical waste container and cover loosely. Move to outside well-ventilated area. Allow to stand uncovered 48 hours before closing container.

COMMENT: Dispose of by any standard method of disposal in accordance with good industrial practice and in compliance with federal, state, and local environmental protection regulations.

7. HANDLING AND STORAGE

HANDLING: Wear proper personal protective equipment. Use in a well ventilated area. Avoid smoking, bare lights, or ignition sources. Avoid physical damage to containers.

STORAGE: Protect from atmospheric moisture. Keep containers sealed in order to avoid contamination. Do not reseal if contaminated. After container has been opened, blanket with nitrogen before resealing. Store indoors in a cool, well-ventilated area.

STORAGE TEMPERATURE: 55 °F – 120 °F (12.8 °C – 48.9 °C)

SHELF LIFE: 1 Year

SPECIAL SENSITIVITY: IDPI reacts with water to form toxic and corrosive substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

<u>CHEMICAL NAME</u>		<u>EXPOSURE LIMITS</u>					
		<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>SUPPLIER OEL</u>	
		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Isophorone Diisocyanate (IPDI)	TWA	0.005	0.045	0.005	0.045		
	STEL	0.02**	0.180**				
Isophorone Diisocyanate Prepolymer	TWA	NE	NE	NE	NE		
1,3-Dioxolan-2-one, 4-methyl-	TWA	NE	NE	NE	NE		

KEY:

** = Skin

NE = Not Established

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear safety glasses with side shields.

SKIN: Wear impervious gloves and clothing to cover exposed skin.

RESPIRATORY: During application, if exposure of product can exceed the PEL/TLV, use

a half-face organic vapor respirator to up to 10 times the exposure limit or the maximum use concentration specified for the cartridge, whichever is lowest.

WORK HYGIENIC PRACTICES: Follow good normal hygiene practices. Avoid contact with skin. Avoid eating, drinking, or smoking while using this product. Wash hands thoroughly after use.

OTHER PROTECTIVE EQUIPMENT: Safety showers and eye wash stations are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Slightly musty

COLOR: Clear to yellow

BOILING POINT: Not Determined

FREEZING POINT: Not Determined

SOLUBILITY IN WATER: Insoluble

VAPOR PRESSURE: < 0.0009 hPa at 68 °F (20 °C)

SPECIFIC GRAVITY: 1.050 (water = 1) at 77 °F (25 °C)

VISCOSITY: 900-1300 Centipoise at 77 °F (25 °C)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Temperature extremes. Container contamination. Moisture.

STABILITY: Stable under recommended storage conditions.

POLYMERIZATION: May occur with certain contaminations.

HAZARDOUS DECOMPOSITION PRODUCTS: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

INCOMPATIBLE MATERIALS: This product will react with any materials containing active hydrogens such as water, alcohol, amines, bases and acids.

11. TOXICOLOGICAL INFORMATION

	ORAL LD ₅₀ (rat)	DERMAL LD ₅₀ (rabbit)	INHALATION LC ₅₀ (rat)
Isophorone Diisocyanate Prepolymer	4814 mg/kg	>7000 mg/kg	0.116 ml/m ³ /4h (respirable aerosol)
1,3-Dioxolan-2-one, 4-methyl-	>5000 mg/kg	>2000 mg/kg	

EYE EFFECTS: Strong irritant.

SKIN EFFECTS: Strong irritant.

CARCINOGENICITY

IARC: Not classified as a carcinogen.
NTP: Not classified as a carcinogen.
OSHA: Not classified as a carcinogen.
ACGIH: Not classified as a carcinogen.

12. ECOLOGICAL INFORMATION**ECOTOXICOLOGICAL INFORMATION:****IPDI**

Toxicity to Fish: LC₅₀ >= 72.3 mg/L/96h (Brachydanio rerio)
Toxicity to Aquatic Invertebrates: EC₅₀ > 27 mg/L/48h (Daphnia magna)
Toxicity to Aquatic Plants: EC₅₀ > 70 mg/L/72h (Scenedesmus subspicatus)
Toxicity to Bacteria: EC₅₀ 260 mg/L/3h (activated sludge, mixed population)

Toxic to aquatic organisms. May cause long-term effects in the aquatic environment.

COMMENTS: No testing for product as a whole.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be in accordance with local, state, provincial or national regulations.

EMPTY CONTAINER: Empty containers should be decontaminated and either passed to an approved drum recycler or destroyed.

RCRA HAZARD CLASS: If discarded as purchased, this material is not a hazardous waste under RCRA 40 CFR 261.

COMMENTS: The generation of waste should be avoided or minimized whenever possible. Chemical waste, even small quantities, should never be poured down drains, sewers or waterways.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)
Not regulated for transportation.

15. REGULATORY INFORMATION**UNITED STATES**

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)
311/312 HAZARD CATEGORIES: Immediate, Chronic, Reactive
313 REPORTABLE INGREDIENTS: Isophorone Diisocyanate

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

No chemicals in this material are subject to the reporting requirements of CERCLA.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All ingredients are on TSCA inventory.

RCRA STATUS: Not hazardous if discarded in its purchased form. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).

16. OTHER INFORMATION

HMIS RATING: Health - *3, Flammability - 1, Physical Hazard - 1

HMIS RATING NOTES: If present, the asterisk signifies a chronic health hazard.

Rating system: 0 = low hazard to 4 = high hazard

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KEY LEGEND INFORMATION:

ACGIH - American Conference of Governmental Industrial Hygienists

EPA - Environmental Protection Agency

IARC - International Agency for Research on Cancer

NTP - National Toxicology Program

OEL - Occupational Exposure Limit

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

STEL - Short Term Exposure Limit

TLV - Threshold Limit Value

TWA - Time Weighted Average

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