



## Material Safety Data Sheets (MSDS)

HMIS-NPCA-MFPA	Health	1
	Flammability	0
	Reactivity	0
	Personal Protection	B

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION		
PRODUCT NAME	Reflective Paint™	
IDENTIFICATION		
DATE PRINTED		
PRODUCT USE/CLASS	Latex Paints & Coatings, water born dispersion	
MANUFACTURER	Ames Research Laboratories, Inc. Jefferson, Oregon 97352	<b>Corporate Office:</b> PO Box 1350 Jefferson, Oregon 97352-1350
EMERGENCY TELEPHONE	1-888-345-0809	
PREPARER (optional)		
PHONE	(503) 588-3330	
PREPARE DATE	07-01-08	

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS			
ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % LESS THAN
01	Titanium dioxide	13463-67-7	5.0%
02	Calcium carbonate	471-34-1	15.0%
03			
04	Acrylic-Styrene Polymer	Not Regulated	
05	Water	7732-18-5	> 37

Material is not known to contain Toxic Chemicals under section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372. Product alkaline to PH-10. May causes stomach distress if ingested. Do not ingest.

--EXPOSURE LIMITS --						
ITEM	ACGIH TLV-TWA	TLV-STEL	OSHA PEL-TWA	PEL-CEILING	COMPANY TLV-TWA	SKIN
01	10 mg / m <sup>3</sup>	N.E.	15 mg / m <sup>3</sup>	N.E.	N.E.	NO
02	10 mg / m <sup>3</sup>	N.E.	15 mg / m <sup>3</sup>	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

SECTION 3 – HAZARDOUS IDENTIFICATION	
EFFECTS OF OVEREXPOSURE	
EYE CONTACT	May cause slight irritation
SKIN CONTACT	May cause irritation
INHALATION	May cause respiratory tract irritation
INGESTION	Irritating to mouth, throat and stomach.
CHRONIC HAZARDS	No anticipated effects. This product does not contain regulated levels of NTP,IARC or OSHA listed carcinogens.
PRIMARY ROUTE(S) OF ENTRY	Skin contact, Inhalation, Ingestion, Eye Contact

SECTION 4 – FIRST AID MEASURES	
FIRST AID	
EYE CONTACT	Flush eye with water for at least 15 minutes. Call a physician. PH is roughly 8.5-9.0. Alkaline.
SKIN CONTACT	Remove contaminated clothing and shoes. Wash affected area(s) thoroughly with soap and water. Flush skin after contact. May cause mild skin irritation. Protect with gloves.
INHALATION	Slight ammonia odor. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.
INGESTION	No data shown on latex. Not probable route of exposure.



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<b>SECTION 5 - FIRE FIGHTING MEASURES</b>	
FLASH POINT	These Formulations tested in accordance with ASTM E 108-80a Class A with a Zero ignitions with a flame spread test. With Weyerhaeuser Company, Fire Technology Unit. Product was also tested in accordance with ASTM E-84-81a. "Smoke attained was Zero. Product contains dispersed Latex and water solvent. The flames spread index determined meets the criteria for Class A material over A/C/ Substrate.
LOWER EXPLOSIVE LIMIT	N.A.
UPPER EXPLOSIVE LIMIT	N.A.
AUTOIGNITION TEMPERATURE	Zero ignition.
EXTINGUISHING MEDIA	FOAM CO2, DRY CHEMICAL, WATER, FOG foam.
UNUSUAL FIRE AND EXPLOSIVE HAZARDS	None Known. Some Gases, Hydrogen Chloride, carbon monoxide,
SPECIAL FIREFIGHTING PROCEDURES	Containers exposed to fire should be kept cool with water spray. Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear.

<b>SECTION 6 – ACCIDENTAL RELEASE MEASURES</b>	
<b>STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:</b>	
Flush small spills with water. Soak up large spills with sand or earth and remove. Repeat sorbent/sweep cycle until the spill has dried up. Collect and dispose according to local regulations. Avoid runoff into storm sewers and ditches that lead to waterways. This product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Consult your state or local authorities for proper disposal in the event more restrictive requirements apply.	

<b>SECTION 7 – HANDLING AND STORAGE</b>	
HANDLING:	Use in a well ventilated area. Keep out of reach of children. If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Uses goggles and gloves. Similar to most latex paints.
STORAGE:	Keep container closed when not in use. Dries Rapidly.

<b>SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
ENGINEERING CONTROLS:	Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Contains low levels of Ammonia for PH control Less than 9 ph.
RESPIRATORY PROTECTION:	Wear NIOSH/MSHA approved respiratory protection when the product is mixed or applied in a poorly ventilated area or if workplace levels of ingredients if they exceed the TLV. Follow applicable federal, state, and local regulations.
OTHER PROTECTIVE EQUIPMENT:	Where contact is likely, wear chemical resistant gloves, chemical safety goggles with a face shield, and clean protective clothing to cover arms and legs to keep exposure to a minimum.
HYGIENE PRACTICES:	Do not take internally. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid breathing vapors from heated material.



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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES			
BOILING RANGE:	212°F	VAPOR DENSITY:	Is heavier than air
ODOR:	Slight Ammonia Ph 8.0 –9.5 Mild	ODOR THRESHOLD:	N.D.
APPEARANCE:	Thick, white, liquid.	EVAPORATON RATE:	Similar to Latex paint, water based Latex polymers.
SOLUBILITY IN H2O	Dilutable, Miscible.	SPECIFIC GRAVITY:	1.05 to 1.15
% VOLATILES	Volatile is water.		Level is 39-55%
pH @	8.0- 9.5 Ph	FREEZE POINT: 32 degrees F	Near Water at 25 deg C. Do not freeze. Freezing will solidify and destroy the product.
VISCOSITY:	130-160 Krebs	VAPOR PRESSURE:	1.75 mm Hg
PHYSICAL STATE:	White Thick Latex Liquid, Contains acrylic latex	COEFFICIENT OF WATER/OIL DISTRIBUTION:	Water VOC solvents negligible.

(See Section 16 for abbreviation legend)

SECTION 10 –STABILITY AND REACTIVITY	
CONDITIONS TO AVOID:	Long term exposure to elevated temperatures
INCOMPATIBILITY:	Avoid contact with oxidizing material
HAZARDOUS DECOMPOSITION PRODUCTS:	Acrid fumes. Oxides of carbon.
HAZARDOUS POLYMERIZATION:	Will not occur under normal conditions
STABILITY:	This product is stable under normal storage conditions.

SECTION 11 – TOXICOLOGICAL PROPERTIES	
PRODUCT DERMAL LS50:	No Information
PRODUCT LC50:	No Information
PRODUCT ORAL LD50:	No Information

## COMPONENT TOXICOLOGICAL INFORMATION:

--CHEMICAL NAME--	DERMAL LD50	ORAL LD50	LC50
This product does not contain regulated levels of NTP, IARC or OSHA			
Existing Health Conditions Affected by Exposure – No known effects on other illnesses			

SECTION 12 – ECOLOGICAL INFORMATION	
ECOLOGICAL INFORMATION:	Contains water based acrylic. Relatively non-toxic to environment.

SECTION 13 – DISPOSAL CONSIDERATIONS	
DISPOSAL METHOD:	Review all local, state, and federal regulations concerning health and pollution for appropriate disposal procedures.

SECTION 14 – TRANSPORTATION INFORMATION	
DOT PROPER SHIPPING NAME:	Not regulated
DOT TECHNICAL NAME:	N.A.
DOT HAZARD CLASS:	N.A.
HAZARD SUBCLASS:	N.A.
DOT UN/NA NUMBER:	N.A.
PACKING GROUP:	N.A.
RESP. GUIDE PAGE:	N.A.
DOT PLACARD AT:	N.A.
DOT CLASS NUMBER:	N.A.
UN PROPER SHIPPING NAME:	Not registered
UN CLASS NUMBER:	N.A. AIR: N.A. MARINE: N.A.
HAZARD SUBCLASS:	N.A. AIR: N.A. MARINE: N.A.
UN UN/NA NUMBER:	N.A. UN PACKING GROUP: N.A. AIR: N.A. MARINE: N.A.
UN PLACARD AT:	N.A.



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<b>SECTION 15 – REGULATORY INFORMATION</b>	
<b>U.S. Federal Regulation:</b> AS FOLLOWS – OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR1910.1200)	
<b>CERCLA – SARA Hazard Category:</b> This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: <b>None</b>	
<b>SARA Section 313:</b> This product does not contain toxic chemical(s) at or above the de minimus concentrations subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372	
<b>Toxic Substances Control Act:</b> This product meets the compositional requirements of the Toxic Substances Control Act and contains only chemical ingredients that are listed on the TOSCA inventory	
<b>California Prop. 65:</b> This product contains no trace amount of a chemical(s) known to California to cause cancer and/or birth defects or other reproductive harm.	
<b>Canadian EPA:</b> This Product contains only chemical ingredients that are listed on the Domestic Substance List of the Canadian Environmental Agency.	
<b>INTERNATIONAL REGULATIONS: AS FOLLOWS--</b>	
<b>CANADIAN WHMIS:</b>	This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the sixteen headings.
<b>CANADIAN WHMIS CLASS</b>	No Information available.

<b>SECTION 16 – OTHER INFORMATION</b>				
<b>HMIS RATINGS:</b>	<b>HEALTH</b> 1	<b>FLAMMABILITY</b> 0	<b>REACTIVITY</b> 0	<b>PERSONAL PROTECTION</b> B
<b>PREVIOUS MSDS REVISION DATE:</b>	06-12-07			
<b>REASON FOR REVISION:</b>				
<b>VOLATILE ORGANIC COMPOUNDS (VOC's):</b>	0.50 lbs/gal, 60 grams/ltr			
<b>LEGEND:</b>	N.A. not applicable, N.E. Not established, N.D. Not determined			
<b>ABBREVIATIONS USED:</b>	N/A (information or data not available); NTP (National Toxicology Program); IARC (International Agency for Research on Cancer); NIOSH (National Institute of occupational Safety and Health administration); PEL (Permissible Exposure Limit) [8 hr. TWA][OSHA]; TLV (Threshold Limit Value)[8 hr. TWA][ACGIH]; STEL (Short term exposure limit)[15 min. TWA][OSHA]; C (ceiling value).			
<b>DISCLAIMER:</b>	Ames Research Laboratories, Inc. believes that the information provided is accurate and reliable as of the date of this material safety data sheet and is given in good faith. No warranty expressed or implied is made as to the accuracy, reliability or completeness of the information. Any use of this data and information must be determined by the user to be in accordance with applicable Federal, State and Local laws and regulations. Ames Research Laboratories, Inc. urges persons receiving this information to make their own determination as to the information's suitability and applicability for an intended use.  Note: This information must be included in all MSDS that are copied and distributed for this material.			