Material Safety Data Sheet

Issuing Date 27-Jan-2012 **Revision Date** 05-Nov-2012 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **HPS-2 LF Yellow 2:1 Standard Set Epoxy**

Product Code(s) **999222**

Recommended Use Traffic paint

Product Technology Epoxy

Supplier Address
Ennis-Flint
5910 North Central Expressway
Suite 1050
Dallas TX 75206
T: 800.331.8118
800.331.8118 (For Technical Inquiries)

Chemical Emergency Phone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Harmful if swallowed or if inhaled
Irritating to eyes
May produce an allergic reaction
May cause central nervous system depression
WARNING! This product contains a chemical known in the State of California to cause cancer.

Appearance Yellow **Physical State** Viscous liquid. **Odor** Mild, epoxy

Potential Health Effects

Principle Routes of Exposure Eye contact. Skin contact. Inhalation.

Acute Toxicity

Eyes Irritating to eyes.

Skin May cause irritation. Direct contact with liquid may produce an allergic reaction

Inhalation May be harmful if inhaled. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

Ingestion Ingestion may cause irritation to mucous membranes.

Chronic Effects Some liquid and solid epoxy resins have been tested for carcinogenicity and mutagenicity. When all of the studies are reviewed as a whole, the weight of evidence does not indicate that epoxy resins are carcinogenic. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation. Repeated contact may cause allergic reactions in very susceptible persons.

Aggravated Medical Conditions Pre-existing eye disorders. Respiratory disorders. Skin disorders. Central nervous system.

Environmental Hazard See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Reaction product of epichlorohydrin & bisphenol A	25085-99-8	60-100
Titanium dioxide	13463-67-7	7-13
Benzyl alcohol	100-51-6	7-13

4. FIRST AID MEASURES

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Skin Contact Wash off immediately with plenty of water. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Inhalation Move victim to fresh air. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Consult a physician.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties Not flammable.

Flash Point 206.6 °F / 97 °C

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None

Specific Hazards Arising from the Chemical Thermal decomposition can lead to release of irritating gases and vapors. Containers may explode when heated.

Protective Equipment and Precautions for Firefighters As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA	**Health Hazard** 2	**Flammability** 1	**Instability** 1	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 2*	**Flammability** 1	**Physical Hazard** 1	**Personal Protection** X

**Indicates a chronic health hazard.*

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with eyes.

Environmental Precautions Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods for Containment Dike far ahead of liquid spill for later disposal.

Methods for Cleaning Up Dam up. Use personal protective equipment. Cover liquid spill with sand, earth or other noncombustible absorbent material. Take up mechanically and collect in suitable container for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling Keep away from open flames, hot surfaces and sources of ignition. Wear personal protective equipment. Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing.

Storage Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Titanium dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m³

OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. NIOSH IDLH: Immediately Dangerous to Life or Health.

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Measures
Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment

Eye/Face Protection Tightly fitting safety goggles.

Skin and Body Protection Protective gloves.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellow.	**Odor**	Mild, epoxy.
Odor Threshold	Not applicable	**Physical State**	Viscous liquid
pH	Not applicable		
Flash Point	206.6 °F / 97 °C	**Autoignition Temperature**	Not applicable
Decomposition Temperature	Not applicable	**Boiling Point/Boiling Range**	Not applicable
Melting Point/Range	Not applicable		
		Flammability Limits in Air	Not applicable
Specific Gravity	1.2-1.4	**Solubility**	Not applicable
Evaporation Rate	Not applicable	**Vapor Pressure**	Not applicable
Vapor Density	Not applicable		

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions.

Incompatible Products Strong oxidizing agents. Acids. Bases. Reducing agents. Amines.

Conditions to Avoid Excessive heat. Contamination by incompatible materials.

Hazardous Decomposition Products Carbon monoxide (CO). Carbon dioxide (CO_2). Hydrocarbons. Violent decomposition can occur at temperatures over 300°C/572°F.

Hazardous Polymerization Polymerization may occur at temperatures above 200°C/392°F. More than 1 pound of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build up.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information No acute toxicity information is available for this product.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Benzyl alcohol	= 1230 mg/kg (Rat)	= 2000 mg/kg (Rabbit)	= 8.8 mg/L (Rat) 4 h

Chronic Toxicity

Chronic Toxicity Some liquid and solid epoxy resins have been tested for carcinogenicity and mutagenicity. When all of the studies are reviewed as a whole, the weight of evidence does not indicate that epoxy resins are carcinogenic. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation. Repeated contact may cause allergic reactions in very susceptible persons.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Titanium dioxide		Group 2B		X

IARC: (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
OSHA: (Occupational Safety & Health Administration)
X - Present

Sensitization Repeated or prolonged contact may cause allergic reactions in very susceptible persons

Target Organ Effects Respiratory system.

12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Benzyl alcohol	EC50 3 h: = 35 mg/L (Anabaena variabilis)	LC50 96 h: = 10 mg/L static (Lepomis macrochirus) LC50 96 h: = 460 mg/L static (Pimephales promelas)	EC50 = 50 mg/L 5 min EC50 = 63.7 mg/L 15 min EC50 = 63.7 mg/L 5 min EC50 = 71.4 mg/L 30 min	EC50 48 h: = 23 mg/L (water flea)

Chemical Name	Log Pow
Benzyl alcohol	1.1

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated Packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
RID	Not regulated
ADR	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Titanium dioxide	13463-67-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Titanium dioxide	X	X	X	-	X
Benzyl alcohol	-	X	X	-	-

International Regulations

Mexico - Grade Slight risk, Grade 1

Chemical Name	Carcinogen Status	Exposure Limits
Titanium dioxide		Mexico: TWA= 10 mg/m^3 Mexico: STEL= 20 mg/m^3

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

D2B Toxic materials

D2A Very toxic materials

16. OTHER INFORMATION

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

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Revision Note (M)SDS sections updated: 1

General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication and it does not purport to be all inclusive and shall be used only as a guide. We urge each customer or recipient of this MSDS to study it carefully to become aware of and understand the potential hazards associated with the product. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. Any use of the product not in conformance with this MSDS or in combination with any other product or process is the responsibility of the user. Customary precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Remove all soiled and contaminated clothing immediately.

End of Safety Data Sheet