Material Safety Data Sheet

Issuing Date 01-May-2012 **Revision Date** 05-Nov-2012 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name **HPS-3 LF Yellow Epoxy**

Product Code(s) **464-123**

Recommended Use Traffic paint

Product Technology Epoxy

Manufacturer 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 for US/ 703-527-3887 outside US

2. HAZARDS IDENTIFICATION

WARNING!

Emergency Overview

Irritating to eyes and skin
May cause sensitization by skin contact
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 Skin contact. Eye contact.

Acute Toxicity

Eyes Irritating to eyes.

Skin Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Inhalation May cause irritation.

Ingestion May cause irritation.

Chronic Effects Repeated contact may cause allergic reactions in very susceptible persons. This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation.

Aggravated Medical Conditions Skin disorders. Pre-existing eye disorders. Respiratory disorders.

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
Trimethylolpropane triacrylate	15625-89-5	10-30
Titanium dioxide	13463-67-7	5-10
Aluminum hydroxide	21645-51-2	1-5

4. FIRST AID MEASURES

General Advice Show this safety data sheet to the doctor in attendance.

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 soap and plenty of water. Remove and wash contaminated clothing before re-use. Consult a physician.

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

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

Notes to Physician May cause sensitization of susceptible persons. Treat symptomatically.

Protection of First-aiders Use personal protective equipment. Avoid contact with skin, eyes and clothing.

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.

Hazardous Combustion Products Carbon monoxide. Carbon dioxide (CO_2). Phenols.

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** 0	**Physical and Chemical Hazards** -
HMIS	**Health Hazard** 2*	**Flammability** 1	**Physical Hazard** 0	**Personal Protection** X

**Indicates a chronic health hazard.*

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak.

Environmental Precautions Prevent further leakage or spillage if safe to do so. 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. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Use personal protective equipment. Take up mechanically and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

Storage Keep containers tightly closed in a cool, well-ventilated place. Store in original container.

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
Aluminum hydroxide 21645-51-2	TWA: 1 mg/m³ respirable fraction	-	

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 Goggles.

Skin and Body Protection Wear protective gloves/clothing.

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 When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

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
Trimethylolpropane triacrylate	= 5190 µL/kg (Rat)	= 5000 mg/kg (Rabbit)	
Titanium dioxide	> 10000 mg/kg (Rat)		> 6820 mg/m^3
Butanamide, 2,2`-[(3,3`-dichloro[1,1`-biphenyl]-4,4`-diyl)bis(azo)]bis[N-(4-chloro-2,5-dimethoxyphenyl)-3-oxo-	> 5000 mg/kg (Rat)		
Aluminum hydroxide	> 5000 mg/kg (Rat)	-	-

Chronic Toxicity

Chronic Toxicity Repeated contact may cause allergic reactions in very susceptible persons. This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation.

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.

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

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

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

D2A Very toxic materials

D2B Toxic materials

16. OTHER INFORMATION

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

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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