MATERIAL SAFETY DATA SHEET
West System Inc.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ..... WEST SYSTEM® 501 White Pigment.
PRODUCT CODE: 501
CHEMICAL FAMILY: ..... Epoxy resin.
CHEMICAL NAME: ..... Epoxy resin with titanium dioxide pigment.
FORMULA: ..... No information.

MANUFACTURER:
West System Inc.
102 Patterson Ave.
Bay City, MI 48706, U.S.A.
Phone: 866-937-8797 or 989-684-7286
www.westsystem.com

EMERGENCY TELEPHONE NUMBERS:
Transportation
CHEMTREC: .....800-424-9300 (U.S.)
703-527-3887 (International)
Non-transportation
Poison Hotline: 800-222-1222

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS Hazard Rating: Health - 2 Flammability - 1 Physical Hazards - 1

CAUTION! May cause allergic skin response in certain individuals. May cause moderate skin irritation. White paste with mild resin odor.

PRIMARY ROUTE(S) OF ENTRY:..... Skin contact.

POTENTIAL HEALTH EFFECTS:

ACUTE INHALATION: ..... Not likely to cause acute effects unless heated to high temperatures. If product is heated, vapors generated can cause headache, nausea, dizziness and possible respiratory irritation if inhaled in high concentrations.

CHRONIC INHALATION:..... Not likely to cause chronic effects. Repeated exposure to high vapor concentrations may cause irritation of pre-existing lung allergies and increase the chance of developing allergy symptoms to this product.

ACUTE SKIN CONTACT: ..... May cause allergic skin response in certain individuals. May cause moderate irritation to the skin such as redness and itching.

CHRONIC SKIN CONTACT:..... May cause sensitization in susceptible individuals. May cause moderate irritation to the skin.

EYE CONTACT:..... May cause irritation.

INGESTION:..... Low acute oral toxicity.

SYMPTOMS OF OVEREXPOSURE:..... Possible sensitization and subsequent allergic reactions usually seen as redness and rashes. Repeated exposure is not likely to cause other adverse health effects.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: ..... Pre-existing skin and respiratory disorders may be aggravated by exposure to this product. Pre-existing lung and skin allergies may increase the chance of developing allergic symptoms to this product.

3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

INGREDIENT NAME	CAS#	CONCENTRATION (%)
Reaction products of epichlorohydrin and Bisphenol A	25085-99-8	22-38
Cresyl Glycidyl Ether	2210-79-9	7-17
Titanium Dioxide (powder)	13463-67-7	40-58
Aluminum Hydroxide	21645-51-2	1-5
Amorphous Silica	7631-86-9	1-5

4. FIRST AID MEASURES

FIRST AID FOR EYES:..... Flush immediately with water for at least 15 minutes. Consult a physician.

FIRST AID FOR SKIN:..... Remove contaminated clothing. Wipe excess from skin. Remove with waterless skin cleaner and then wash with soap and water. Consult a physician if effects occur.

FIRST AID FOR INHALATION: ..... Remove to fresh air if effects occur. Consult a physician.

FIRST AID FOR INGESTION: ..... If victim is conscious, give large quantities of water. Induce vomiting only at the instructions of a physician.

5. FIRE FIGHTING MEASURES

FLASH POINT: ..... 205°F (TCC).

EXTINGUISHING MEDIA: ..... Foam, CO_2, dry chemical, or water fog.

SPECIAL FIRE FIGHTING PROCEDURES: ..... Use a self-contained breathing apparatus and appropriate protective clothing. Burning may produce oxides of aluminum, carbon, and titanium; aldehydes, carbon monoxide, carbon dioxide and phenolics.

6. ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: ..... Soak up in absorbent material or scrape up. Residual can be removed with non-flammable solvent, but solvent should be used sparingly and with appropriate precautions.

7. HANDLING AND STORAGE

STORAGE TEMPERATURE (min./max.): ..... 40°F (4°C)/100°F (38°C).

STORAGE: ..... Store in cool, dry place. Store in tightly sealed containers to prevent moisture absorption and loss of volatiles. Excessive heat over long periods of time will degrade the resin.

HANDLING PRECAUTIONS: ..... Avoid prolonged or repeated skin contact. Wash thoroughly after handling. Launder contaminated clothing before reuse. Avoid inhalation of vapors from heated product.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION GUIDELINES: ..... Safety glasses with side shields or chemical splash goggles.

SKIN PROTECTION GUIDELINES: ..... Wear liquid-proof, chemical resistant gloves (nitrile-butyl rubber, neoprene, butyl rubber or natural rubber) and full body-covering clothing.

RESPIRATORY/VENTILATION GUIDELINES: ..... Good room ventilation is usually adequate for most operations. Wear a NIOSH approved respirator with an organic vapor cartridge whenever exposure to vapor in concentrations above applicable limits is likely.

ADDITIONAL PROTECTIVE MEASURES: ..... Practice good caution and personal cleanliness to avoid skin and eye contact. Avoid skin contact when removing gloves and other protective equipment. Wash thoroughly after handling. Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions.

OCCUPATIONAL EXPOSURE LIMITS: ..... Not established for product as whole. Refer to OSHA's Permissible Exposure Level (PEL) or the ACGIH Guidelines for information on specific ingredients.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM ..... Paste.
COLOR ..... White.
ODOR ..... Mild resin odor.
BOILING POINT ..... No data.
MELTING POINT/FREEZE POINT ..... No data.
pH ..... No data.
SOLUBILITY IN WATER ..... Insoluble.
SPECIFIC GRAVITY 1.9
BULK DENSITY ..... 15.6 pounds/gallon
VAPOR PRESSURE ..... No data.
VAPOR DENSITY ..... Heavier than air.
% VOLATILE BY WEIGHT ..... 14.2.

10. STABILITY AND REACTIVITY

STABILITY: ..... Stable.

HAZARDOUS POLYMERIZATION: ..... Will not occur.

INCOMPATIBILITIES: ..... Strong oxidizing agents, strong acids, bases, peroxides, ammonia, amines or mercaptans.

DECOMPOSITION PRODUCTS: ..... Oxides of aluminum, carbon, and titanium; aldehydes, carbon monoxide, carbon dioxide and phenolics may be produced during uncontrolled exothermic reactions or when otherwise heated to decomposition.

11. TOXICOLOGICAL INFORMATION

No specific oral, inhalation or dermal toxicology data is known for this product. Specific toxicology information for a bisphenol-A based epoxy resin present in this product is indicated below:

Oral: ..... LD_{50} > 5000 mg/kg (rats)
Inhalation: ..... No Data.
Dermal: ..... LD_{50} = 20,000 mg/kg (skin absorption in rabbits)

TERATOLOGY: ..... Diglycidyl ether bisphenol-A (DGEBPA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.

REPRODUCTIVE EFFECTS: ..... DGEBPA, in animal studies, has been shown not to interfere with reproduction.

MUTAGENICITY: ..... DGEBPA in animal mutagenicity studies were negative. In vitro mutagenicity were negative in some cases and positive in others.

CARCINOGENICITY:

NTP ..... Product not listed.
IARC ..... Product not listed.
OSHA ..... Product not listed.

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol-A. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBPA is carcinogenic. Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBPA is not classified as a carcinogen.

12. ECOLOGICAL INFORMATION

No information.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: ..... Evaluation of this product using RCRA criteria shows that it is not a hazardous waste, either by listing or characteristics, in its purchased form. It is the responsibility of the user to determine proper disposal methods.

Incinerate, recycle (fuel blending) or reclaim may be preferred methods when conducted in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

DOT
D.O.T. SHIPPING NAME: ..... Not regulated by D.O.T.
TECHNICAL SHIPPING NAME: ..... Not applicable.
D.O.T. HAZARD CLASS: ..... Not applicable.
U.N./N.A. NUMBER: ..... Not applicable.
PACKING GROUP: ..... Not applicable.

IATA
SHIPPING NAME: ..... Not regulated.
TECHNICAL SHIPPING NAME: ..... Not applicable.
HAZARD CLASS: ..... Not applicable.
U.N. NUMBER: ..... Not applicable.
PACKING GROUP: ..... Not applicable.

15. REGULATORY INFORMATION

OSHA STATUS: ..... Hazardous. Irritant. Possible sensitizer.
TSCA STATUS: ..... All components are listed on the TSCA Inventory or otherwise comply with TSCA requirements.
SARA TITLE III:
SECTION 313 TOXIC CHEMICALS ..... None.

Canada WHIMIS Classification: D2B

STATE REGULATORY INFORMATION:
The following chemicals are specifically listed or otherwise regulated by individual states. For details on your regulatory requirements you should contact the appropriate agency in your state.

COMPONENT NAME /CAS NUMBER	CONCENTRATION	STATE CODE
Titanium Dioxide (powder) 13463-67-7	40-58%	MA, NJ, PA, RI
Amorphous Silica 7631-86-9	1-5%	MA, PA

[1.] These substances are known to the state of California to cause cancer or reproductive harm, or both.

16. OTHER INFORMATION

REASON FOR ISSUE: ..... Changes made in Sections 10, 11, 14 & 15.
PREPARED BY: ..... G. M. House
APPROVED BY: ..... G. M. House
TITLE: ..... Health, Safety & Environmental Manager
APPROVAL DATE: ..... February 6, 2011
SUPERSEDES DATE: ..... January 3, 2008
MSDS NUMBER: 501-11a

Note: The Hazardous Material Indexing System (HMIS), cited in the Emergency Overview of Section 3, uses the following index to assess hazard rating: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; and 4 = Severe.

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