

MATERIAL SAFETY DATA SHEET

West System Inc.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:.....WEST SYSTEM® 502 Black Pigment
PRODUCT CODE:.....502
CHEMICAL FAMILY:.....Modified epoxy resin
CHEMICAL NAME:.....Modified epoxy resin with carbon black 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

WARNING May cause skin irritation. May cause eye irritation. May cause allergic reaction and sensitization. Black paste with mild resin odor.

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

POTENTIAL HEALTH EFFECTS:

ACUTE INHALATION:..... At room temperature, exposure to vapor is minimal due to low volatility. If product is heated, vapors generated can cause headache, nausea, dizziness and possible respiratory irritation if inhaled in high concentrations.

CHRONIC INHALATION:..... 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.

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 INGREDIENTS

INGREDIENT NAME	CAS#	CONCENTRATION (%)
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	25085-99-8	40-80
Cresyl Glycidyl Ether	2210-79-9	10-30
Carbon Black	1333-86-4	10-30

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: Seek medical attention if significant amount is ingested.

5. FIRE FIGHTING MEASURES:

FLASH POINT:..... 205°F (TCC).

EXTINGUISHING MEDIA: Foam, CO₂, 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 or discard. 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 to keep exposure below applicable limits for normal applications. If this is not feasible, wear a NIOSH approved respirator with an organic vapor cartridge whenever exposure to vapors above applicable limits is likely. The International Agency for Research on Cancer (IARC) evaluation of carbon black concluded that there is sufficient evidence in experimental animals for the carcinogenicity of carbon black. Based upon this evaluation, along with its findings of inadequate evidence of carcinogenicity in humans, IARC has designated carbon black as a Group 2B carcinogen "possibly carcinogenic to humans." This classification is based on the inhalation route of exposure. Carbon black as present in this product is not available for inhalation exposure. If this product is cured and subsequently sanded to create airborne dust the appropriate precautions should be taken to prevent inhalation exposure.

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..... Black.
ODOR..... Mild resin odor.
BOILING POINT No data.
MELTING POINT/FREEZE POINT No data.
pH..... No data.
SOLUBILITY IN WATER Insoluble.
SPECIFIC GRAVITY..... 1.2
BULK DENSITY 10.3 pounds/gallon
VAPOR PRESSURE..... No data.
VAPOR DENSITY Heavier than air.
% VOLATILE BY WEIGHT 18.0

10. STABILITY AND REACTIVITY

STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITIES: Strong acids, peroxides and other oxidizing agents, strong bases, ammonia, and 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: LD₅₀ >5000 mg/kg (rats)

Inhalation: No Data.

Dermal: LD₅₀ = 20,000 mg/kg (skin absorption in rabbits)

TERATOLOGY: Diglycidyl ether bisphenol-A (DGEBA) 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: DGEBA, in animal studies, has been shown not to interfere with reproduction.

MUTAGENICITY: DGEBA 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.

The International Agency for Research on Cancer (IARC) evaluation of carbon black concluded that there is sufficient evidence in experimental animals for the carcinogenicity of carbon black. Based upon this evaluation, along with its findings of inadequate evidence of carcinogenicity in humans, IARC has designated carbon black as a Group 2B carcinogen "possibly carcinogenic to humans." This classification is based on the inhalation route of exposure. Carbon black as present in this product is not available for inhalation exposure. If this product is cured and subsequently sanded to create airborne dust the appropriate precautions should be taken to prevent inhalation exposure.

The National Toxicology Program (NTP) has not listed carbon black. The Occupational Safety and Health Administration (OSHA) has not listed carbon black.

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 DGEBA is carcinogenic. Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classified as a carcinogen.

12. ECOLOGICAL INFORMATION

Prevent entry into sewers and natural waters. May cause localized fish kill. No specific data available for the product as a whole. Data presented below represents a majority component in this formulation.

Movement and Partitioning:

Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Kow between 3 and 5).

Degradation and Transformation:

Theoretical oxygen demand is calculated to be 2.35 p/p. 20-day biochemical oxygen demand is <2.5%.

Ecotoxicology:

Material is moderately toxic to aquatic organisms on an acute basis. LC50/EC50 between 1 and 10 mg/L in most sensitive species.

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 Non-bulk

SHIPPING NAME: Not regulated.

TECHNICAL SHIPPING NAME:..... Not applicable.
HAZARD CLASS: Not applicable.
U.N./N.A. NUMBER: Not applicable.
PACKING GROUP:..... Not applicable.

IMDG

SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s.
TECHNICAL SHIPPING NAME:..... Epoxy Resin.
HAZARD CLASS: Class 9.
U.N. NUMBER: UN3082.
PACKING GROUP:..... PG III.
EmS Number: F-A, S-F
MARINE POLLUTANT Yes

ICAO/IATA

SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s.
TECHNICAL SHIPPING NAME:..... Epoxy Resin.
HAZARD CLASS: Class 9.
U.N. NUMBER: UN3082.
PACKING GROUP:..... PG III.
MARINE POLLUTANT: Yes

15. REGULATORY INFORMATION

OSHA STATUS: Irritant. Possible skin sensitizer.
TSCA STATUS:..... All components are included on the TSCA inventory list or otherwise
comply wit TSCA requirements.

Canada WHMIS Classification:..... D2B - Toxic material causing other toxic effects.

SARA TITLE III:

SECTION 313 TOXIC CHEMICALS None.

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**ICAS NUMBER****CONCENTRATION****STATE CODE**

Carbon Black
1333-86-4

NJ

16. OTHER INFORMATION

REASON FOR ISSUE: New product.
PREPARED BY: G. M. House
APPROVED BY:..... G. M. House
TITLE: Health, Safety & Environmental Manager
APPROVAL DATE: March 17, 2014
SUPERSEDES DATE:..... NA
MSDS NUMBER:..... 502-14a

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