

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006 (REACH)

1. PRODUCT IDENTIFICATION

Trade Name(s): Geo-Seal EFC Clear Coat – Part A

Description: Modified Epoxy Resin

Synonyms: N/A

CAS No: N/A

Supplier:

EPRO Services, Inc.

PO Box 347

Derby, KS 67037

800-882-1896 (8:00am – 5:00pm CST)

2. HAZARD(S) IDENTIFICATION

Classification

Acute Toxicity – Category 3

Asp. Toxicity – Category 1

Chronic Aquatic Toxicity – Category 3

Flammable Liquids – Category 4

Skin Sensitizer – Category 1

Pictograms



Signal Word: Danger

Hazard-determining Components of Labeling

Tetraethyl-N,N'-(methylenedicyclohexane-4,1-diy)bis-DL-aspartate

bis(4-(1,2-bis(ethoxycarbonyl)ethyl-lamino)-3-methylcyclohexyl)methane

Dipropylene glycol methyl ether acetate

Hazardous Statements: Combustible liquid. May be fatal if swallowed and enters airways. May cause an allergic skin reaction. Toxic if inhaled. Harmful to aquatic life with long lasting effects.

Precautionary Statements: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take action to prevent

static discharges. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Immediately call a Poison Center/doctor. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Wash with plenty of soap and water. Rinse skin with water/shower. If skin irritation or a rash occurs: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a Poison Center/doctor. Do not induce vomiting. In case of fire: Use appropriate method to extinguish. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/ container in accordance with local regional/national/international regulations.

NFPA ratings (scale 0 – 4)

Health = 2
 Fire = 2
 Reactivity = 0

HMIS ratings (scale 0 – 4)

Health = 2
 Flammability = 2
 Reactivity = 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	%
136210-32-7	bis(4-(1,2-bis(ethoxycarbonyl)ethyl-lamino)-3-methylcyclohexyl)methane	46
1362-10-30-5	Tetraethyl-N,N'-(methylenedicyclohexane-4,1-diy)bis-DL-aspartate	23
88917-22-0	Dipropylene glycol methyl ether acetate	29

4. FIRST-AID MEASURES

Inhalation: Remove source of exposure or move person to fresh air and keep comfortable for breathing. Supply fresh air, consult doctor in case of complaints. Keep victim warm. In case of irregular breathing or respiratory arrest provide artificial respiration. To prevent aspiration, keep head below knees. In case of unconsciousness place patient stably on side position for transportation.

After skin contact: Immediately wash with and soap and rinse thoroughly. If skin irritation consult doctor. Remove contaminated shoes and clothes and clean before reuse.

After eye contact: Protect unharmed eye. Rinse opened eye for several minutes under running water. Then consult a doctor. Remove contact lenses if worn.

After swallowing: Rinse out mouth and then drink plenty of water. DO NOT induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed: Allergic reactions. Gastric or intestinal disorders. Dizziness. Coughing. Breathing difficulty.

Hazards: Condition may deteriorate with alcohol consumption.

Indications of any immediate medical attention and special treatment: If swallowed, gastric irrigation with added carbon. Monitor circulation, possible shock treatment. Medical supervision for at least 48 hours. Treat skin and mucous membrane with antihistamine and corticoid preparations.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Carbon dioxide, dry chemical, alcohol resistant foam, water fog. water spray or fog is recommended.

Unusual Fire and Explosion Hazards: Combustible liquid and vapor. Vapors/dust may form explosive mixture with air. Vapors can travel to a source of ignition and flash back. In case of fire, the following can be released:

nitrogen oxides and carbon monoxide. Under certain fire conditions, traces of other toxic gases cannot be excluded.

Fire-fighting Procedures: Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Water may be ineffective but can be used to cool containers exposed to heat or flame. Caution should be exercised when using water as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Special Protective Actions: Wear NIOSH approved self-contained breathing apparatus in positive pressure mode with full-face piece. Boots, gloves (neoprene), goggles, and full protective clothing are also required. Care should always be exercised in dust/mist areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Personnel should be trained for spill response operations. Remove persons from danger area. Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.

Environmental precautions: Inform respective authorities in case of seepage into water course or sewage drain. Dilute with plenty of water. Do not allow to enter sewers/surface or ground water.

Steps to be taken in case material is release or spilled: Wear appropriate personal protective equipment. (See Exposure Controls / Personal Protection Section.) Eliminate all ignition sources. Prevent additional discharge of material if able to do so safely. Do not touch or walk through spilled material. Avoid runoff into storm sewers and ditches which lead to waterways. Ventilate spill area. Stay upwind of spill. Collect spilled materials for disposal. Use only non-combustible material for clean-up. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods and material for containment and cleaning up: Contain spill if safe to do so using an absorbent-liquid binding material (sand, diatomite, acid binders, universal binders, sawdust). Prevent entry into drains, sewers, and other waterways. Send for recovery or disposal in suitable receptacles. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations). Clean the affected area carefully. Suitable cleaners are organic solvents.

Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7. HANDLING AND STORAGE

Precautions for safe handling: Store in a cool dry place in tightly sealed receptacles. Ensure good ventilation/exhaustion at the workplace. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors/mists generated by this product. Remove contaminated clothing immediately. Prevent formation of aerosols.

Conditions for safe storage, including any incompatibilities: Store in cool dry location in well-sealed receptacles. Provide ventilation for receptacles. Avoid storage near extreme heat, ignition sources, or open flames. Do not store together with oxidizing and acidic materials. Do not store with foodstuffs.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Ingredients with Limit Values that Require Monitoring at the Workplace: Dipropylene glycol methyl ether acetate.

General Protective and Hygienic Measures: Personal protective equipment. Keep away from foodstuffs, beverages, and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at end of work. Avoid contact with eyes and skin.

Eye Protection: Wear eye protection with side shields or goggles. Wear indirect-vent, impact, and splash resistant goggles when working with liquids. If additional protection is needed for entire face, use in combination with a face shield.

Skin Protection: Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene, or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g., frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber is recommended to avoid skin sensitization. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. When airborne concentrations exceed or are expected to exceed the TLV, use MSHA/NIOSH approved positive pressure supplied air respirator with a full-face piece or an air supplied hood. For emergencies, use a positive pressure self-contained breathing apparatus.

9. PHYSICAL AND CHEMICAL PROPERTIES

Density at 20°C: 1.05g/cm

Appearance: Liquid

Odor Threshold: Not determined

pH: Not determined

Flash Point: 186°F (85.5°C)

Solvent Content: Not determined

Lower Explosion Level: Not determined

Self-igniting: Not determined

Vapor Density: Not determined

Vapor Pressure: Not determined

Boiling Point: 392°F (200°C)

Danger of Explosion: Does not present an explosion hazard

VOC (EC): Not determined

Color: Clear to light yellow

Odor Description: Amine-Like

Water Solubility: Fully miscible

Viscosity: Not determined

Organic Solvents: Not determined

Upper Explosion Level: Not determined

Relative Density: Not determined

Evaporation Rate: Not determined

Melting Point/Range: Not determined

Ignition Temp: Not determined

10. STABILITY AND REACTIVITY

Chemical stability: No Information

Conditions to be avoided: Avoid excess heat and sources of ignition. Minimize exposure to air

Thermal Decomposition Products: No decomposition if used and stored according to specifications.

Possibility of hazardous reactions: Reacts with strong acids, oxidizing agents, peroxides, and other radical forming substances. Toxic fumes maybe released if heated above the decomposition point

Exothermic reaction: Reacts with catalysts and strong alkali. Violent reaction with: NHx, OH and SH groups.

Conditions to avoid: Store away from oxidizing agents.

Incompatible materials: Oxidizing agents and amines. Avoid excess heat and sources of ignition. Keep away from acids

Hazardous decomposition products: Hydrocarbons, nitrogen oxides, carbon monoxide, carbon dioxide. May form peroxides of unknown stability.

Hazardous Polymerization: No information.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Primary irritant effect:

Inhalation: Low order of toxicity. Negligible hazard at ambient temperature.

Skin Contact: Irritant to skin and mucous membranes.

Eye Contact: Causes serious irritation to eyes. Symptoms may include stinging, tearing, redness and swelling.

Ingestion: Slightly toxic

Sensitization: Sensitization possible through skin contact. Sensitizing effect through inhalation is possible by prolonged exposure.

Additional toxicological information: Irritant. Harmful.

Reproductive Toxicity Information: No information concerning the effects of this product and its components on the human reproductive system.

12. ECOLOGICAL INFORMATION (non-mandatory)

Aquatic toxicity: The material is harmful to the environment.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No evidence is currently available on this product's effects on plants or animals.

Ecotoxic effects: Harmful to fish

Additional ecological information: This statement was deduced from products with a similar structure or composition. Avoid transfer into the environment. Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment cannot be excluded. Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Harmful to aquatic organisms.

Results of PBT and vPvB Assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS (non-mandatory)

Waste Disposal: Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

Uncleaned packaging: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary, together with cleansing agents.

RCRA Waste Code: None listed.

EU Waste Code: None listed

14. TRANSPORT INFORMATION (non-mandatory)

UN-Number (DOT, IMDG, IATA) : NA 1993

UN-Proper Shipping Name (DOT, IMDG, IATA): Combustible liquid, n.o.s. (dipropylene monomethyl ether acetate. Combustible liquid.

Transportation Hazard Classes (DOT, ADR, IMDG, IATA): 3

Packing Group (DOT, ADR, IMDG, IATA): III

Marine Pollutant: This product does not contain ingredients that are classified by DOT as a Marine Pollutant (as defined by 49CFR 172.101, Appendix B).

Special Precautions for User

Danger Code (Kemler): No data available

EMS Number: No data available

Additional Information

ADR Tunnel Restriction Code: No data available

UN « Model Regulations »: No data available

15. REGULATORY INFORMATION (non-mandatory)

Safety, health, and environmental regulations/legislation specific for the substance or mixture

North American

SARA: 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:

SARA Section 313 (Specific toxic chemical listings): No components exist in this product.

SARA Section 355 (Extremely hazardous substances): No components exist in this product.

TSCA (Toxic Substances Control Act): Inventory: No components exist in this product.

Proposition 65 (California)

Chemicals known to cause cancer: No components exist in this product.

Chemicals known to cause reproductive toxicity for females: No components exist in this product.

Chemicals known to cause reproductive toxicity for males: No components exist in this product.

Chemicals known to cause developmental toxicity: No components exist in this product.

Carcinogenic Categories

EPA (Environmental Protection Agency): None of the ingredients are listed.

IARC (International Agency for Research on Cancer): None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH): None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety & Health): None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients are listed.

New Jersey Right-to-Know

The following materials are non-hazardous but are among the top five components in this product. No Right-to-know components exist in this product.

Pennsylvania Right-to-Know

Non-hazardous ingredients present in the product are at or greater than 3. No PA Right-to-Know components exist in this product.

CANADA

Canadian Domestic Substance List (DSL): All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%): None of the ingredients are listed.

Canadian Ingredient Disclosure list (limit 1%): None of the ingredients are listed.

Chemical safety assessment: Has not been carried out.

16. OTHER INFORMATION

Abbreviations and Acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

This information provided on this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designated only as a guide for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered as 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.