



"Environmentally Responsible Resin Systems"

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

MATERIAL IDENTITY: 99E-G0002D, Green Concentrate
INFORMATION TELEPHONE: 920-803-1700

COMPANY: NOVOC Performance Resins, LLC
3687 Enterprise Drive
Sheboygan, WI 53083
EMERGENCY TELEPHONE: CHEMTREC: 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
Vinylester Resin, Unsaturated	Mixture	
Titanium Dioxide	13463-67-7	10% - 15%
C.I. Pigment Red #170	2786-76-7	2%

3. HEALTH HAZARD

EFFECTS OF OVEREXPOSURE: Irritation of the respiratory tract or eyes. Any relevant information regarding any ingredient's status as a potential, suspect or confirmed carcinogen is listed in SECTION V of the MSDS. Chronic over exposure may cause allergic skin reactions, respiratory irritation, inflammation and asthma-like symptoms. This product contains unsaturated polyester resin, which may undergo hazardous polymerization. Do not handle near heat, sparks or open flame. **FOR INDUSTRIAL USE ONLY.**

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: Pre-existing eye, skin and respiratory disorders.

PRIMARY ROUTE (S) OF ENTRY: Skin, Eye and Inhalation

INHALATION: This product contains Titanium Dioxide, which is currently listed by OSHA and ACGIH as a nuisance dust hazard. Exposure limits for Titanium Dioxide (dust): (CAS# 13463-67-7) OSHA (PEL): TWA = 10 mg/m³ (total dust) 5 mg/m³ (respirable) ACGIH (TLV): TWA = 10 mg/m³ (total dust). Prolonged and continuous exposure to excessive concentration of dust of any kind without using a dust mask may have an adverse pulmonary effect on some people. This overexposure may result in coughing, sputum and reduced lung capacity. Pre-existing asthmatic conditions may worsen. Persons with lung diseases should not work in dusty areas unless a physician certifies their fitness to wear a respirator. See OSHA 1910.134.

May cause slight irritation of the respiratory tract. May be accompanied by nausea, headache or dizziness.

Exposure limits for Inert and Nuisance Dust Particulates Not Otherwise Classified:
OSHA (PEL): TWA = 15mg/m³ (total dust) 5mg/m³ (respirable fraction). ACGIH (TLV): TWA = 10 mg/m³ (total dust).

EYE CONTACT: Liquids or vapors may cause moderate to severe irritation, redness, tearing, blurred vision and/or pain.

SKIN CONTACT: May cause a burning or itching sensation.

INGESTION:

May cause vomiting. If aspirated into the lungs, aspiration may cause chemical pneumonitis and/or primary edema as evidenced by coughing, labored breathing, cyanosis (bluish skin) and in sever cases, aspiration may be fatal.

4. FIRST AID MEASURES

Eyes

Flush eyes with large amounts of water for at least 15 minutes. Hold eyelids apart to ensure flushing of the entire contaminated area. Get prompt medical attention.

Skin

Remove contaminated clothing and/or footwear. Wash contact area with soap and water. Get medical attention as needed. May be absorbed with some toxic effects.

Ingestion

DO NOT INDUCE VOMITING! Have conscious person drink several glasses of water, keep head below hips to prevent aspiration of fluids into the lungs. GET MEDICAL ATTENTION IMMEDIATELY.

Inhalation

Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration and obtain emergency medical assistance. See a physician if respiratory irritation persists.

5. FIRE FIGHTING MEASURES

Proper Shipping Name – DOT/IATA/IMO: Not Regulated No Label Required
Shipping Label – DOT/IATA/IMO: No Label Required Flash Point: 9999 F

EXTINGUISHING MEDIA: Dry chemical: carbon dioxide; inert dry granular material (sand); foam. DO NOT USE HALON. The use of water may be ineffective on aluminum fires. If using water, use only fog settings not solid streams of water.

UNUSUAL FIRE & EXPLOSION HAZARDS. High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause spontaneous polymerization reactions generating heat/pressure. Closed containers may rupture or explode during runaway polymerization.

SPECIAL FIRE FIGHTING PROCEDURES: Water spray may be ineffective. Water may be used to cool containers to prevent pressure build-up. Water spray/fog nozzle settings should be used. Pressure relief systems may plug with solids, increasing risk of overpressure. Notify authorities if liquid enters sewer/public waterways.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: absorb material with absorbent material.

LARGE SPILL: prevent run-off to sewers, streams or other bodies of water. Notify proper authorities as required, that run-off has occurred. Persons not wearing proper protective equipment should leave spill site. Stop source of spill, dike to prevent spreading, transfer to salvage container. May be shoveled into containers.

WASTE DISPOSAL: Consult licensed waste handling and/or transportation facility. Follow all applicable local, state and federal regulations. Do not incorporate into municipal sewage treatment facilities. Empty containers contain product residue. Follow label & MSDS warnings even after container is empty.

7. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE PROTECTION: Eye protection should be worn in any type of industrial operation. The use of goggles or face shield designed to protect against liquid splash is recommended. The use of contact lenses is not recommended.

SKIN PROTECTION: Chemical resistant gloves are recommended. Use neoprene, nitrile or PVC. Cover as much of the exposed skin area as possible with appropriate impervious clothing. If skin creams are used, keep the area protected by the cream to a minimum.

RESPIRATORY PROTECTIONS: In outdoor or open areas with unrestricted ventilation, no additional precautions needed. In restricted areas, use a NIOSH approved organic vapor respirator.

Ventilation: Provide sufficient ventilation to keep hazards at levels below current ACGIH TLV and OSHA PEL of the listed hazardous ingredients in MSDS.

OTHER HYGIENIC PRACTICES: Eye washes and safety showers in the workplace are recommended. Wash hands prior to eating, using the washroom or smoking. Precautions must be taken so that persons handling this product do not breathe the vapors or have it contact the

skin or eyes. In spray operations, protection must be afforded against exposure to both vapor and spray mist.

OTHER WORK PRACTICES

Use protective apron to prevent clothing contamination. Avoid prolonged skin contact with contaminants if clothes are soiled. Remove and wash all contaminated clothing before re-use. Never wear contaminated clothing away from the workplace.

Precautions to be taken in Handling & Storage:

Avoid exposure to high temperatures of over 120F to protect product stability and shelf life. Rotate product stocks. Keep closures tight to avoid leakage. Do not stack five-gallon containers more than 5 high. Store waste rags in an approved container.

CAUTION!!! DO NOT TAKE INTERNALLY.

8. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Range	9999-0 F
Vapor Pressure	N/DA
Vapor Density (air=1)	Heavier than Air
Specific Gravity (water=1 @39.2F)	1.428
Percent Volatiles	None
Evaporation Rate (Bac=1)	Slower than Ether

9. STABILITY AND REACTIVITY

Stability: Unstable. Unstable (Reactive upon loss of inhibitor).

Incompatibility : High temperatures, localized heat sources, oxidizing conditions, freezing conditions, direct sunlight, ultraviolet radiation, inert gas blanketing, strong oxidizers, strong reducers, free radical initiators, inert gas, oxygen scavengers.

HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide, incompletely burned hydrocarbons, and other irritating or toxic vapors.

Hazardous Polymerization: May occur upon depletion of inhibitor.

Conditions to Avoid: Keep away from high heat, flame, spark or static discharge.

10. SUPPLEMENT

NPCA HMIS RATING

Health 2

Flammability	0
Reactivity	2
Personal Protection	D

11. OTHER INFORMATION

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources, which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable. This MSDS has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

This product may contain trace amounts of chemicals known in California as carcinogens or reproductive toxins.