



GLOBAL Encasement, Inc.

SAFETY DATA SHEET

RoofCoat™

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: RoofCoat™
Product Use: Encasement TopCoat
Product Description: Elastomeric Acrylic Industrial Coating, Water-Base
Manufacturer: GLOBAL Encasement, Inc.
701 E. Santa Clara St., Ventura, CA 93001
Tel. # (800) 266-3982 / Fax (800) 520-3291
Contact #s:
Website Address: www.encasement.com

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification: Non-Hazardous
GHS Label: None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Material or Component	CAS Number	% by Weight
*Titanium dioxide (unbound only)	13463-67-7	3-7
Limestone	1317-65-3	15-40
Zinc Oxide	1314-13-2	2-4

**The hazards of the listed titanium dioxide, crystalline silica (Quartz) from limestone and ZnO are for their powder unbound form. In the bound form and when used for application as a roof coating for which the products are designed, these ingredients are not hazardous.*

SECTION 4: FIRST-AID INFORMATION

Emergency First Aid Procedures and Description:

Eye Contact: Eye irritation. Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from eyeball to ensure thorough rinsing. Get immediate medical attention.

Skin Contact: Itching or burning of the skin. Immediately flush the skin with plenty of water while removing contaminated clothing and shoes. Get immediate medical attention.

Inhalation: Nasal irritation, headache, dizziness, nausea, vomiting. Heart palpitations, breathing difficulty, cyanosis, tremors, weakness, red flushing of face, irritability. Remove exposed person from source of exposure to fresh air. If not breathing, clear airway and start cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation. Get medical attention immediately.

Ingestion: If ingested, do not induce vomiting unless directed to do so by a medical personnel. Get medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use dry chemical, foam or carbon dioxide to extinguish fire.

Specific Hazards Arising from the Chemical: Dangerous when exposed to heat or flame. Will form flammable or explosive mixtures with air at room temperature. Irritating or toxic substances may be emitted upon thermal decomposition. Thermal decomposition products may include oxides of carbon and nitrogen. Vapor or gas may spread to distant ignition sources and flash back. Vapors or gas may accumulate in low areas. Runoff to sewer may cause fire or explosion hazard. Containers may explode in heat of fire. Containers may explode in heat of fire. Vapors may concentrate in confined areas. Liquid will float and may reignite on the surface of water.

Special Protective Action for Firefighters: Water should be used to cool fire-exposed containers, structures and to protect personnel. Use water to dilute spills and flush them away from sources of ignition. Do not flush down sewers or other drainage systems. Exposed firefighters must wear NIOSH approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use personal protective equipment.
Keep people away from and upwind of spill/leak.
Material can create slippery conditions.

Environmental Precautions: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods of Cleaning Up: Contain spills immediately with inert materials (e.g. sand, earth).
Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling: Avoid breathing dust, vapor or mist. Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Use personal protective equipment in handling and observe personal hygiene after use of the product.

Conditions for Safe Storage: Storage Temperature: Minimum: 40°F (4.44°C)
Maximum: 100°F (37.77°C)

Storage Period: 12 months

Keep container closed when not in use. Protect from freezing.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION

Component	CAS #	Regulation	Type of Listing	Occupational Exposure Limits
Titanium Dioxide	13463-67-7	JSOH OELs (05 2009) US ACGIH (2011)	TWA TWA TWA	1 mg/m ³ (Respirable dust) 4 mg/m ³ (Total dust) 10 mg/m ³
Zinc Oxide	1314-13-2	ACGIH	TWA STEL	2 mg/m ³ 10 mg/m ³

		OSHA	PEL	5 mg/m ³ (fume, respirable fraction) 15 mg/m ³ (Total dust)
Calcium Carbonate (in Limestone)	1317-65-3	OSHA	TWA	5 mg/m ³ (Respirable fraction) 15 mg/m ³ (Total dust)
		NIOSH	TWA	10 mg/m ³ (Total dust) 5 mg/m ³ (Respirable dust)
Quartz (in Limestone)	14408-60-7	ACGIH	TWA	0.025 mg/m ³ (Respirable fraction)
Quartz (in Limestone)		OSHA	TWA	0.1 mg/m ³ (Respirable dust)
		NIOSH		0.05 mg/m ³ (Respirable dust)

Engineering Controls: Mechanical local exhaust ventilation at point of containment release.

Protective Measures: Employees should wash their hands and face before eating, drinking or using tobacco products. Educate and train employees in the safe use and handling of this product.
EMERGENCY SHOWERS AND EYE WASH STATIONS SHOULD BE AVAILABLE.

Eye/Face Protection: Chemical splash goggles (ANSI Z-87.1 or approved equivalent).

Skin Protection: Impervious (Neoprene gloves).

Respiratory Protection: Wear suitable respirator (MSHA/NIOSH approved or equivalent) where exposure limits are exceeded.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Color:	Varies from white, beige, gray, green, brick-red
Odor:	Slight amine odor
Odor Threshold:	Not Available
pH:	8.5-10.4
Melting Point/Freezing Point:	0°C (32°F) similar to water
Initial Boiling Point and Boiling Range:	100°C (212°F) similar to water
Flash Point:	Not applicable (water based product), however, solid material will support combustion if water has been evaporated
Evaporation Rate:	Not available
Flammability (Solid, Gas):	Not Available
Upper/Lower Flammability or Explosive Limits:	Not Available
Vapor Pressure:	22.7 mm Hg at 20°C (68. °F) similar to water
Vapor Density:	Not Available
Relative Density:	11.0-12.0#/gal
Solubility(ies):	Soluble in water
Partition Coefficient: N-Octanol/Water:	Not Available
Auto-Ignition Temperature:	Not Available
Decomposition Temperature:	Not Available
Viscosity:	100-115 KU

Note: The above data are typical values and must not be construed as a specification.

SECTION 10: STABILITY AND REACTIVITY INFORMATION

Reactivity: Non-reactive.

Chemical Stability: Stable.

Possibility of Hazardous Reactions: None known.

Conditions/Materials to Avoid: Keep from freezing/No known materials to avoid.

Incompatible Materials: None known.

Hazardous Decomposition: By Thermal decomposition: carbon monoxide, carbon dioxide, acrylic monomers, and other potentially toxic fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:

Component	Acute Oral	Acute Dermal	Acute Inhalation
Titanium Dioxide	LD50 rat >5000 mg/kg	LD50: >5000 mg/kg (Rabbit)	LC50/4h/rat (dust/mist): >6.82 mg/l, 4h (Rat)
Limestone	LD50 rat >6450 mg/kg	Not Available	Not Available
Zinc Oxide	Not Available	Not Available	LC50 >2500 mg/m ³ , (mouse)
Mixture	Not Available	Not Available	Not Available

Skin/Eye Irritation:

Titanium Dioxide	Rabbit, Exposure Time, 24h, Non-Irritating
Limestone & Zinc Oxide	Not available
Mixture	Not available

Mutagenicity:

Titanium Dioxide	Genetic Toxicity in Vitro: Ames: negative (Salmonella typhimurium, Metabolic Activation: with/without) Genetic Toxicity in Vivo: Drosophila SLRL test: negative (Drosophila melanogaster)
Limestone & Zinc Oxide	Not available
Mixture	Not available

Carcinogenicity:

Titanium Dioxide (Ti-Pure, DuPont) Rat, Male/Female, inhalation-According to IARC, several rat inhalation and intratracheal installation studies using titanium dioxide have shown increases in benign and malignant lung tumors.

Based upon all study results, DuPont scientists conclude that titanium dioxide will not cause lung cancer or chronic respiratory diseases in humans at concentrations experience in the workplace.

Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

Quartz (in Limestone)	ACGIH: A2-suspected human carcinogen NIOSH: Potential occupational carcinogen IARC : Monograph 68 (1997) (Listed under Crystalline Silica inhaled in the form of quartz or Cristobalite)
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From occupational sources (Group 1-Carcinogenic to humans)

Limestone & Zinc Oxide Mixture Not available
 Mixture Not available

Sensitization:

Titanium dioxide Dermal: non-sensitizer (Guinea pig, Maximization Test), non-sensitizer (Human, Patch Test)
 Repeated Dose toxicity: 28 days, Inhalation: NOAEL: 35mg/m³, (Rat)

Quartz (in Limestone) Not available
 Zinc Oxide Not available
 Mixture Not available

Reproductive toxicity, STOT, Aspiration Hazard: Not available for components and mixture in the products listed.

Other Toxicological Information:

*Reviewed human exposure data did not suggest an association between occupational exposure to titanium dioxide and cancer. Additionally, the IARC working group determined that, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other material, such as in paints."

SECTION 12: ECOLOGICAL INFORMATION**Ecotoxicity:**

Titanium dioxide Aquatic Toxicity: 96 hrs. LC50: Fathead minnow >1,000mg/l; LC50: >1000 mg/l (Golden Orfe (Leuciscus idus), 48 hours)
 Acute Toxicity to Aquatic invertebrates: EC50 >3mg/l (Water Flea (Daphnia Magna)
 Toxicity to Microorganisms : EC50 >10,000 mg/l, (Pseudomonas fluorescens, 24 hrs.)

Limestone Acute and Prolonged toxicity to Fish: LC50: 56,000 mg/l (Mosquitofish (Gambusia affinis), 48 hours)

Persistence and Degradability, Bioaccumulative Potential, Mobility in Soil: Not available for components and mixtures in the products listed.

SECTION 13: DISPOSAL INFORMATION

Environmental Precautions: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Waste Disposal Method: Waste disposal should be in accordance with existing federal, state and local environmental laws.

Empty Container Precautions: Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning.

SECTION 14: TRANSPORTATION INFORMATION

UN Number: Not applicable
 UN proper Shipping Name: Not applicable
 Transport Hazard Class: Not applicable
 Packing Group: Not applicable
 Environmental Hazards: Not hazardous
 Land Transport (DOT): Non-Regulated
 Sea Transport (IMDG): Non-Regulated

Air Transport (ICAO/IATA): Non-Regulated
 Special Precautions: No data available

SECTION 15: REGULATORY INFORMATION

Unites States TSCA Inventory (US.TSCA): All components of this product are in compliance with the inventory listing requirement of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

CERCLA Information (40CFR302.4): Release of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to the state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title Section 304.

SARA TITLE III, Sections 302, 304, 311, 312: This material does not contain any component listed in EPA's List of List.

Workplace Classification

OSHA: This product is considered not hazardous under OSHA Hazard Communication Standard (29CFR 1910.1200).

WHMIS: This product and its components are not listed as a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Proposition 65: This product contains a chemical known to cause cancer or reproductive toxicity.

Component	CAS Number	Authoritative Body	Date Entered
Titanium dioxide (airborne, unbound particles of respirable size)	(none), several substances for single listing	Labor Code (LC)	September 2, 2011
Silica, crystalline (airborne particles of respirable size); 0.5% in Limestone	(none), several substances for single listing	State's Qualified Expert (SQE)	October 1, 1988

SECTION 16: OTHER INFORMATION

Hazardous Material Information System (HMIS) Rating:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	0

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This SDS adheres to the standards and regulatory requirements of the United States and has been written under the guidance of the Globally Harmonized System of Classification and Labeling of Chemicals.

Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
DOT	Department of Transportation
GHS	Globally Harmonized System (of Classification and Labeling of Chemicals)
ICAO	International Civil Aviation Organization
IARC	International Agency for Research on Cancer
IATA	International Air Transportation Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal Concentration STEL Short Term Exposure Limit
LD50	Median Lethal Dose or Lethal Dose, 50 %
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety
NOAEL	No-Observed-Adverse-Effect-Level
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TRI	Toxic Release Inventory
TWA	Time Weighted Average

The information in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. The information relates only to the specific material designated and may not be valid for such material used in combination with or any other material in any process, unless specified in the test.

End of Safety Data Sheet