

# SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Quantum45 Epoxy Primer Surfacing Activator Product Code: 45-A-100

**MANUFACTURER:**  
Engineered Marine Coatings, INC

**EMERGENCY PHONE:** 1-800-255-3924 (CHEMTEL)

**MANUFACTURING ADDRESS:**  
4120 Hyde Park Blvd.  
Niagara Falls, NY 14305

**INFORMATION PHONE:** 1-855-54GENIUS

**CORPORATE ADDRESS:**  
PO Box 921  
Isle of Palms, SC 29451

Product Use: PROFESSIONAL USE ONLY  
Not recommended for:

## 2. HAZARD(S) IDENTIFICATION

### GHS Ratings:

Flammable liquid	3	Flash point $\geq 23^{\circ}\text{C}$ and $\leq 60^{\circ}\text{C}$ (140°F)
Skin corrosive	2	Reversible adverse effects in dermal tissue, Draize score: $\geq 2.3 < 4.0$ or persistent inflammation
Skin sensitizer	1	Skin sensitizer
Carcinogen	2	Limited evidence of human or animal carcinogenicity

### GHS Hazards

H226	Flammable liquid and vapour
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer

### GHS Precautions

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/light/.../equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash hands thoroughly after handling
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P321	Specific treatment (see ... on this label)
P362	Take off contaminated clothing and wash before reuse
P363	Wash contaminated clothing before reuse
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P308+P313	IF exposed or concerned: Get medical advice/attention.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P370+P378	In case of fire: Use ... for extinction.
P405	Store locked up
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to ...

Signal Word: Warning



### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
Dimethyl Carbonate	616-38-6	20.00% - 30.00%
Xylene	1330-20-7	10.00% - 20.00%
Solvent Nahptha Light Aromatic	64742-95-6	1.00% - 5.00%
Trimethylbenzene	25551-13-7	1.00% - 5.00%
Trimethylbenzene 1,2,4-	95-63-6	1.00% - 5.00%
Ethylbenzene	100-41-4	0.10% - 1.00%
Cumene	98-82-8	0.10% - 1.00%

### 4. FIRST AID MEASURES

#### INHALATION:

Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention. Asthmatic-type systems may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic. Consult a physician.

#### EYES:

Flush with clean, lukewarm water (low pressure) for at least 15 minutes, while lifting eyelids. Refer individual to physician or ophthalmologist for immediate follow-up.

#### SKIN:

First aid for skin: Remove contaminated clothing immediately. Wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. For severe exposures, get under safety shower after removing clothing, then get medical attention. Seek medical attention if irritation develops or persists.

#### INGESTION:

DO NOT INDUCE VOMITING. Give 1 to 2 cups of mil or water to drink. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. Consult physician immediately.

### 5. FIRE-FIGHTING MEASURES

Flash Point: 37 C (99 F)

LEL: 1.00

UEL: 13.00

**EXTINGUISHING MEDIA:** Use water spray to cool fire exposed surfaces and to protect personnel. Isolate "fuel" supply from fire. Use foam, dry chemical, carbon dioxide, or water spray as last option. Avoid spraying water directly into storage containers due to the danger of boilover.

**HAZARDOUS COMBUSTION PRODUCTS:** Fires involving this product may release fumes, smoke, carbon dioxide, carbon monoxide, and irritating vapors.

**FIRE FIGHTING INSTRUCTIONS:** Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting fire. Vapors may cause a flash fire or ignite explosively. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILL:

Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

### LARGE SPILL:

Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate the area. Equip employees with appropriate protection equipment. Dike around spilled material. Cover spill with inert absorbent material and shovel with non-sparking tools into container. Remove containers to a safe area and seal. Waste material must be disposed of in accordance with federal, state, and local environmental regulatory controls.

## 7. HANDLING AND STORAGE

**HANDLING:** Ground lines and equipment during transfer to reduce the possibility of static spark-initiated fire or explosion. Use non-sparking tools. Do not cut, grind, drill, weld, or reuse containers unless adequate precautions are taken against these hazards. Do not eat, drink, or smoke in areas of use or storage.

**STORAGE:** Protect against physical damage. Store in a cool dry place. Outside or detached storage preferred. Inside storage should be in a standard flammable liquid storage room or cabinet. All equipment should be grounded and bonded to reduce static electricity hazard. Use non-sparking tools. Do not reuse empty product container for any purpose.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Dimethyl Carbonate 616-38-6	OSHA PEL Not Available	ACGIH TLV Not Available	Not Established
Xylene 1330-20-7	PEL 100 ppm - TWA STEL 150 ppm (655 mg/m <sup>3</sup> ) TWA 100 ppm (435 mg/m <sup>3</sup> ) USA. OSHA - TABLE Z-1 Limits for Air Contaminants -1910.1000	100 ppm - TWA 150 ppm - STEL	Not Established
Solvent Naphtha Light Aromatic 64742-95-6	Substance is not listed.	Substance is not listed.	Not Established

Trimethylbenzene 25551-13-7	There is no OSHA PEL.	NIOSH, HSE, and ACGIH have adopted or recommend a TWA values (for trimethyl benzenes as a class) of 25 ppm (125 mg/m3) and the HSE STEL value is 35 ppm (170 mg/m3).	Several states have set guidelines or standard for Trimethyl benzenes in ambient air ranging from 1.25 – 1.70 mg/m3 (North Dakota) to 2.1 mg/m3 (Virginia) to 2.5 mg/m3 (Connecticut) to 2.976 mg/m3 (Nevada).
Trimethylbenzene 1,2,4- 95-63-6	There is no OSHA PEL.	NIOSH, HSE, and ACGIH have adopted or recommend a TWA values (for trimethyl benzenes as a class) of 25 ppm (125 mg/m3) and the HSE STEL value is 35 ppm (170 mg/m3).	Several states have set guidelines or standard for Trimethyl benzenes in ambient air ranging from 1.25 – 1.70 mg/m3 (North Dakota) to 2.1 mg/m3 (Virginia) to 2.5 mg/m3 (Connecticut) to 2.976 mg/m3 (Nevada).
Ethylbenzene 100-41-4	100 ppm TWA 125 ppm STE	100 ppm TWA 125 ppm STEL	The NIOSH IDLH level is 800 ppm of 0.02 mg/m3 on either a momentary or a daily average basis.
Cumene 98-82-8	The OSHA PEL 8-hour TWA and ACGIH recommended TLV 8-hour TWA is 50 ppm (245 mg/m3).	The OSHA PEL 8-hour TWA and ACGIH recommended TLV 8-hour TWA is 50 ppm (245 mg/m3).	Not Established

Good general ventilation (typically 10 air changes per hour) should be used to keep vapor levels below the limits in Section 2 and lower explosive limit in Section 5. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking, or using the toilet. Promptly remove clothing that becomes contaminated.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

This mixture typically exhibits the following properties under normal circumstances:

<p><b>Appearance:</b> Clear Liquid</p> <p><b>Vapor Pressure:</b> 62.8 mm Hg</p> <p><b>Vapor Density:</b> 3.4</p> <p><b>Specific Gravity:</b> 1.07</p> <p><b>Freezing point:</b> No Data</p> <p><b>Boiling range:</b> No Data</p> <p><b>Evaporation rate:</b> No Data</p> <p><b>Explosive Limits:</b> 1% - 13%</p> <p><b>Autoignition temperature:</b> No Data</p> <p><b>Coating VOC (lbs/gal)</b> 2.71</p>	<p><b>Odor:</b> Solvent</p> <p><b>Odor threshold:</b> No Data</p> <p><b>pH:</b> No Data</p> <p><b>Melting point:</b> No Data</p> <p><b>Solubility:</b> No Data</p> <p><b>Flash point:</b> 99°F, 37°C</p> <p><b>Flammability:</b> Flammable Liquid, Class 2</p> <p><b>Partition coefficient (n-octanol/water):</b> No Data</p> <p><b>Decomposition temperature:</b> No Data</p>
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## 10. REACTIVITY AND STABILITY

STABLE

### Incompatibility:

Strong oxidizing agents  
Strong Acids

### Hazardous Decomposition:

May form: carbon dioxide and carbon monoxide  
Hazardous polymerization will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Mixture Toxicity

Inhalation Toxicity LC50: 281mg/L

### Component Toxicity

616-38-6	Dimethyl Carbonate Dermal LD50: 5,000 mg/kg (RABBIT)
1330-20-7	Xylene Oral LD50: 4,300 mg/kg (RAT) Dermal LD50: 1,700 mg/kg (RABBIT) Inhalation LC50: 5,000 ppm (RAT)
64742-95-6	Solvent Nahptha Light Aromatic Dermal LD50: 3,400 mg/kg (RABBIT) Inhalation LC50: 10 mg/L (RAT)

### ROUTES OF ENTRY:

Inhalation      Skin Contact      Eye Contact      Ingestion

Exposure to this material may affect the following organs:

Blood    Eyes    Liver    Lungs    Central Nervous System    Skin

### Effects of Overexposure

Short Term Exposure

Ethyl benzene irritates the eyes, skin, and respiratory tract. Exposure to high concentrations can cause dizziness, lightheadedness and unconsciousness. Very high exposures (above the OEL) can cause difficult breathing, narcosis, coma, and even death. Swallowing the liquid may cause aspiration into the lungs, resulting in chemical pneumonitis. May affect the central nervous system. Concentration of 200 ppm can cause irritation. Trimethyl benzene can affect you when breathed in. Irritates the eyes, skin, and respiratory tract. Exposure can cause you to feel dizzy, lightheaded, and to pass out. Symptoms of exposure can also include headache, drowsiness, fatigue, dizziness, nausea, incoordination, vomiting, nervousness, tenseness, confusion. Liquid deposition in lungs causes bronchitis or chemical pneumonitis. Irritates the eyes, skin and respiratory tract. Skin contact may cause a burning sensation and/or rash. Higher levels can cause dizziness, lightheadedness, headaches, unconsciousness, narcosis, coma. Levels of 4,000 ppm may cause unconsciousness. The LD50 oral-rat is 1,400 mg/kg (slightly toxic).

Long Term Exposure

Repeated or prolonged exposure to the skin may cause drying, scaling and blistering. May cause kidney disease, liver disease, chronic respiratory disease, skin disease, as follows: EB is not nephrotoxic. Concern is expressed because the kidney is the primary route of excretion of EB and its metabolites. EB is not hepatotoxic. Since EB is metabolized by the liver, concern is expressed for these tissues. Exacerbation of pulmonary pathology might occur following exposure to EB. Individuals with impaired pulmonary function might be at risk. EB is a defatting agent and may cause dermatitis following prolonged exposure. Individuals with preexisting skin problems may be more sensitive to EB. There is limited evidence that EB may damage the developing fetus, and may cause mutations. Repeated exposures can cause headaches, tiredness, and a feeling of nervous tension. Can affect the blood cells and the blood's clotting ability; hypochromic anemia. Delayed or chronic health hazard is possible asthmatic bronchitis with coughing and/or shortness of breath. The use of alcoholic beverages enhances the effect. May cause liver damage. The liquid destroys the skin's natural oils, causing drying and cracking. Drying and cracking of the skin. May cause lung, liver, and kidney damage. Although cumene has not been adequately tested to determine whether brain or nerve damage could occur with repeated exposure, many solvents and other petroleum-based chemicals have been shown to cause such damage.

The following ingredients are listed as possible carcinogens:

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
100-41-4	Ethylbenzene	.1 to 1.0%	Ethylbenzene: California Proposition 65 The IARC has classified ethylbenzene as a possible carcinogen.
64742-95-6	Solvent Naphtha Light Aromatic	1 to 5%	Solvent Naphtha Light Aromatic:
25551-13-7	Trimethylbenzene	1 to 5%	Trimethylbenzene:
98-82-8	Cumene	.1 to 1.0%	Cumene:

**12. ECOLOGICAL INFORMATION**

This section will be updated as ecological reviews are complete.

**Component Ecotoxicity**

**13. DISPOSAL CONSIDERATIONS**

Waste material must be disposed of in accordance with all federal, state, and local environmental regulatory controls. Chemical additions, processing, or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or otherwise inappropriate.

**14. TRANSPORT**

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	PAINT	1263	III	3

**15. REGULATORY INFORMATION**

The regulatory information provided is not meant to be comprehensive. Other federal, state, and local regulation applies to this material.

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>
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**EU Risk Phrases**

**Safety Phrase**

- None

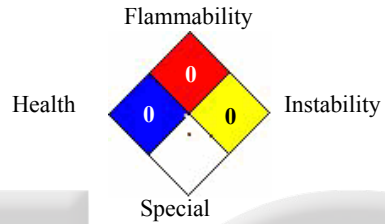
**16. OTHER INFORMATION**

**Hazardous Material Information System (HMIS)**

<b>HEALTH</b>	<input type="text" value="2"/>
<b>FLAMMABILITY</b>	<input type="text" value="2"/>
<b>PHYSICAL HAZARD</b>	<input type="text" value="1"/>
<b>PERSONAL PROTECTION</b>	<input type="text" value="G"/>

**HMIS & NFPA Hazard Rating Legend**  
\* = Chronic Health Hazard  
0 = INSIGNIFICANT  
1 = SLIGHT  
2 = MODERATE  
3 = HIGH

**National Fire Protection Association (NFPA)**



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Reviewer Revision

ENGINEERED MARINE COATINGS