

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: QUANTUM45 EPOXY PRIMER GRAY BASE Product Code: 45-SP-GRAY

Trade Name:

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	3	Reversible adverse effects in dermal tissue, Draize score: $\geq 1.5 < 2.3$
Eye corrosive	2	Eye Irritation: Reversible adverse effects on cornea, iris, conjunctiva, Draize score: Corneal opacity ≥ 1 , Iritis > 1 , Redness ≥ 2 , Chemosis ≥ 2
Carcinogen	2	Limited evidence of human or animal carcinogenicity

GHS Hazards

H226	Flammable liquid and vapour
H316	Causes mild skin irritation
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
P264	Wash hands thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313	IF exposed or concerned: Get medical advice/attention.

P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	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 %
Solvent Nahptha Light Aromatic	64742-95-6	5.00% - 10.00%
Trimethylbenzene	25551-13-7	5.00% - 10.00%
Trimethylbenzene 1,2,4-	95-63-6	1.00% - 5.00%
Tris - 2,4,6-(dimethylaminomethyl)phenol	90-72-2	1.00% - 5.00%
Silica, Crystalline	14808-60-7	0.10% - 1.00%
Cumene	98-82-8	0.10% - 1.00%
Ethylbenzene	100-41-4	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: 8.00

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
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/m ³) and the HSE STEL value is 35 ppm (170 mg/m ³).	Several states have set guidelines or standard for Trimethyl benzenes in ambient air ranging from 1.25 – 1.70 mg/m ³ (North Dakota) to 2.1 mg/m ³ (Virginia) to 2.5 mg/m ³ (Connecticut) to 2.976 mg/m ³ (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).
Tris - 2,4,6-(dimethylaminomethyl)phenol 90-72-2	TWA 400 ppm 980 mg/m3 USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 STEL 500 ppm 1,225 mg/m3 USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000	TWA 200 ppm USA. ACGIH Threshold Limit Values (TLV) STEL 400 ppm USA. ACGIH Threshold Limit Values (TLV)	Not Established
Silica, Crystalline 14808-60-7	PEL: 0.1 mg/M3 Exposure to airborne crystalline silica shall not exceed an 8-hour TWA limit as stated in 29 CFR 1910.1000 Table Z-3 for Mineral Dusts, specifically: "Silica: Crystalline: Quartz (respirable)."	TWA 0.025 mg/m3 USA. ACGIH Threshold Limit Values (TLV)	NTP/IARC Level 2A Grouping listed carcinogen as airborne dust.
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
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.

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>Appearance: Opaque Liquid</p> <p>Vapor Pressure: 7.9 hPa at 20 °C</p> <p>Vapor Density: 6.7</p> <p>Specific Gravity: 1.61</p> <p>Freezing point: No Data</p> <p>Boiling range: No Data</p> <p>Evaporation rate: No Data</p>	<p>Odor: Solvent</p> <p>Odor threshold: No Data</p> <p>pH: No Data</p> <p>Melting point: No Data</p> <p>Solubility: No Data</p> <p>Flash point: 99°F, 37°C</p> <p>Flammability: Flammable Liquid, Class 2</p>
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Explosive Limits: 1% - 8% Autoignition temperature: No Data Viscosity 40 - 50 Seconds	Partition coefficient (n- No Data octanol/water): Decomposition temperature: No Data Coating VOC (lbs/gal) 3.28
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10. REACTIVITY AND STABILITY

STABLE

Incompatibility:

Strong oxidizing agents

Hazardous Decomposition:

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

11. TOXICOLOGICAL INFORMATION

Mixture Toxicity

Inhalation Toxicity LC50: 115mg/L

Component Toxicity

64742-95-6 Solvent Naphtha 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

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). Irritates the eyes. Inhalation can cause cough, dyspnea (breathing difficulty), wheezing. 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.

Long Term Exposure

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. Can cause decreased pulmonary function, progressive respiratory symptoms; fibrosis (silicosis). A potential occupational carcinogen. Silicosis is a very serious lung disease and can cause with cough and shortness of breath. Silicosis can develop in a few weeks at very high exposures, or it may occur over many years with lower exposures. Silicosis can cause death. If silicosis develops, risk of developing tuberculosis is increased. The disease may progress with or without continued exposure. If it does, this can be crippling or even fatal. Very fine silica, or "silica flour" is even more hazardous. 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.

The following ingredients are listed as possible carcinogens:

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
64742-95-6	Solvent Naphtha Light Aromatic	5 to 10%	Solvent Naphtha Light Aromatic:
25551-13-7	Trimethylbenzene	5 to 10%	Trimethylbenzene:
98-82-8	Cumene	.1 to 1.0%	Cumene:
14808-60-7	Silica, Crystalline	.1 to 1.0%	Silica, Crystalline: NTP: YES IARC: YES (Level 2A Grouping)
100-41-4	Ethylbenzene	.1 to 1.0%	Ethylbenzene: California Proposition 65 The IARC has classified ethylbenzene as a possible carcinogen.

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.

Country **Regulation** **All Components Listed**

EU Risk Phrases

Safety Phrase

- None

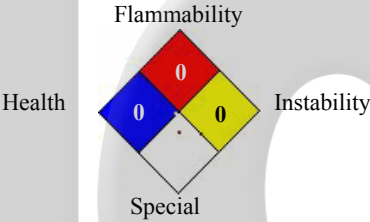
16. OTHER INFORMATION

Hazardous Material Information System (HMIS)

HEALTH	<input type="text" value="0"/>
FLAMMABILITY	<input type="text" value="0"/>
PHYSICAL HAZARD	<input type="text" value="0"/>
PERSONAL PROTECTION	<input type="text" value=""/>

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

National Fire Protection Association (NFPA)



The information set forth above is based on information which Engineered Marine Coatings, Inc. believes to be accurate. No warranty, expressed or implied, is intended. The information is provided solely for your information and consideration and EMC assumes no legal responsibility for its use or reliance thereon.

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Reviewer Revision

ENGINEERED MARINE COATINGS