

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: QUANTUM45 ADHESION PROMOTING SURFACE TREATMENT Product Code: 45-X-117

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: FOR PROFESSIONAL USE ONLY
Not recommended for:

2. HAZARD(S) IDENTIFICATION

GHS Ratings:

| | | |
|--------------------|----|--|
| Flammable liquid | 2 | Flash point < 23°C and initial boiling point > 35°C (95°F) |
| Skin corrosive | 2 | Reversible adverse effects in dermal tissue, Draize score: >= 2.3 < 4.0 or persistent inflammation |
| Eye corrosive | 1 | Serious eye damage: Irreversible damage 21 days after exposure, Draize score: Corneal opacity >= 3, Iritis > 1.5 |
| Skin sensitizer | 1 | Skin sensitizer |
| Carcinogen | 1B | Presumed Human Carcinogen, Based on demonstrated animal carcinogenicity |
| Reproductive toxin | 2 | Human or animal evidence possibly with other information |
| Aspiration hazard | 1 | Aspiration Toxicity Category 1: Known (regarded)- human evidence - hydrocarbons with kinematic viscosity ? 20.5 mm ² /s at 40° C. |

GHS Hazards

| | |
|------|---|
| H225 | Highly flammable liquid and vapour |
| H304 | May be fatal if swallowed and enters airways |
| H315 | Causes skin irritation |
| H317 | May cause an allergic skin reaction |
| H318 | Causes serious eye damage |
| H350 | May cause cancer |
| H361 | Suspected of damaging fertility or the unborn child |

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 |
| P310 | Immediately call a POISON CENTER or doctor/physician |
| P321 | Specific treatment (see precautionary statements on this label) |
| P331 | Do NOT induce vomiting |
| P362 | Take off contaminated clothing and wash before reuse |
| P363 | Wash contaminated clothing before reuse |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. |
| 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. |
| 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. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P370+P378 | In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction. |
| P405 | Store locked up |
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P501 | Dispose of contents/container to an approved waste disposal plant. |

Signal Word: **Danger**



3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS number | Weight Concentration % |
|---|-------------|------------------------|
| Toluene | 108-88-3 | 70.00% - 80.00% |
| Isopropanol | 67-63-0 | 5.00% - 10.00% |
| Amine | Proprietary | 5.00% - 10.00% |
| Epoxy Resin | 25068-38-6 | 1.00% - 5.00% |
| Xylene | 1330-20-7 | 1.00% - 5.00% |
| Propylene Glycol Monomethyl Ether Acetate | 108-65-6 | 1.00% - 5.00% |

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: 4 C (39 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 ire 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 |
|-------------------------|----------------------|-----------------------|-----------------------|
|-------------------------|----------------------|-----------------------|-----------------------|

| | | | |
|--|---|---|---|
| Toluene 108-88-3 | PEL 200.00 ppm - TWA PEL 300. 00 ppm - Ceiling VPEL 100.00 ppm - TWA VPEL 150.00 ppm STEL | TLV 50.00 ppm - TWA (Skin) STEL 150 ppm - STEL (Skin) | Not Established |
| Isopropanol 67-63-0 | The OSHA PEL, HSE TWA, DFG MAK, and the ACGIH TWA value is 400 ppm (980 mg/m3). | The OSHA PEL, HSE TWA, DFG MAK, and the ACGIH TWA value is 400 ppm (980 mg/m3). The STEL set by ACGIH, HSE is 500 ppm (1,225 mg/m3). | The NIOSH IDLH level is 2,000 ppm. |
| Amine Proprietary | OSHA PEL Not Available | ACGIH TLV Not Available | Not Established |
| Epoxy Resin 25068-38-6 | TWA 5 ppm (19 mg/m3) USA. Occupational Exposure Limits(OSHA) - Table Z-1 Limits for Air Contaminants | TWA 0.5 ppm USA. ACGIH Threshold Limit Values (TLV) | Not Established |
| Xylene 1330-20-7 | PEL 100 ppm - TWA STEL 150 ppm (655 mg/m3) TWA 100 ppm (435 mg/m3) USA. OSHA - TABLE Z-1 Limits for Air Contaminants -1910.1000 | 100 ppm - TWA 150 ppm - STEL | Not Established |
| Propylene Glycol Monomethyl Ether Acetate 108-65-6 | OSHA PEL Not Available | ACGIH TLV Not Available | TWA 50 ppm USA. Workplace Environmental Exposure Levels (WEEL) |

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: Clear Liquid</p> <p>Vapor Pressure: 23.1 mmHg @ 25C</p> <p>Vapor Density: 3.1</p> <p>Specific Gravity: 0.89</p> <p>Freezing point: No Data</p> <p>Boiling range: No Data</p> <p>Evaporation rate: No Data</p> <p>Explosive Limits: 1% - 13%</p> <p>Autoignition temperature: No Data</p> <p>Coating VOC (lbs/gal) 6.49</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: 39°F,4°C</p> <p>Flammability: Flammable Liquid, Class 2</p> <p>Partition coefficient (n- octanol/water): No Data</p> <p>Decomposition temperature: No Data</p> |
|---|---|

10. REACTIVITY AND STABILITY

STABLE

Incompatibility:

Strong oxidizing agents
May form explosive peroxides
Strong Acids

Acids, bases.

Hazardous Decomposition:

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

11. TOXICOLOGICAL INFORMATION

Mixture Toxicity

Inhalation Toxicity LC50: 37mg/L

Component Toxicity

ROUTES OF ENTRY:

Inhalation Skin Contact Eye Contact Ingestion

Exposure to this material may affect the following organs:

Blood Eyes Kidneys Liver Lungs Central Nervous System Reproductive System
Skin

Effects of Overexposure

Short Term Exposure

Isopropyl alcohol irritates the eyes, skin, and respiratory tract. Inhalation: Irritation of the nose and throat may occur at 400 ppm and above. Skin: 5% solution may cause irritation and dryness. Eyes: Vapor levels of 20 ppm or above may result in irritation. Liquid may cause corneal burns and eye damage. Ingestion: 22.5 ml (2/3 oz) has caused salivation, reddening of face, stomach pain, depression, dizziness, headache, vomiting and unconsciousness. Ingestion of 100 ml (3 oz) has caused death.

Long Term Exposure

Repeated or prolonged contact may cause dry, cracking skin. There is an increased incidence of nasal sinus cancer in workers involved in the manufacture of IPA by the strong acid process. Although this chemical has not been adequately evaluated, many solvents and similar petroleum-based chemicals have been shown to cause brain or other nerve damage.

The following ingredients are listed as possible carcinogens:

| <u>CAS Number</u> | <u>Description</u> | <u>% Weight</u> | <u>Carcinogen Rating</u> |
|-------------------|--------------------|-----------------|--------------------------|
|-------------------|--------------------|-----------------|--------------------------|

12. ECOLOGICAL INFORMATION

This section will be updated as ecological reviews are complete.

Component Ecotoxicity

Epoxy Resin

Toxicity
no data available
Persistence and degradability
Biodegradability Result: - According to the results of tests of biodegradability this product is not readily biodegradable.
Remarks: no data available
Bioaccumulative potential
no data available
Mobility in soil
no data available
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Toxic to aquatic life with long lasting effects.
no data available

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 | II | 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> |
|----------------|-------------------|------------------------------|
|----------------|-------------------|------------------------------|

EU Risk Phrases

Safety Phrase

- None

16. OTHER INFORMATION

Hazardous Material Information System (HMIS)

National Fire Protection Association (NFPA)

| | |
|---------------------|---|
| HEALTH | 2 |
| FLAMMABILITY | 3 |
| PHYSICAL HAZARD | 1 |
| PERSONAL PROTECTION | G |

HMIS & NFPA Hazard Rating Legend

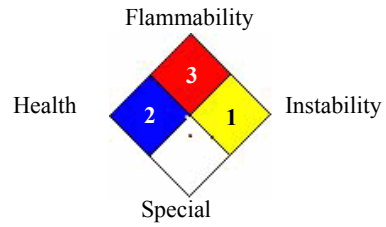
* = Chronic Health Hazard

0 = INSIGNIFICANT

1 = SLIGHT

2 = MODERATE

3 = HIGH



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Reviewer Revision

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