

SAFETY DATA SHEET

Date Printed: 9/7/2016

Date Revised: 6/1/2015

Page 1 of 8

Product Code: 45-ASC-RTU

1. Product and Company Identification

Product Name : Quantum45 Aluminum Surface Conditioner

Product Code : 45-ASC-RTU

Recommended Use:

For Industrial Use Only. To be used by Professional Applicators following Manufacturer's Instructions.

Company Identification:

ENGINEERED MARINE COATINGS, INC.

Manufacturing Address

4120 Hyde Park Blvd.

Niagara Falls, NY 14305

Corporate Address

PO Box 921

Isle of Palms, SC 29451

M-F 8AM-5PM Phone: 803-481-3400

Information Phone: 855-54GENIUS

Emergency Phone: 800-255-3924 CHEMTEL

2. Hazards Identification

GHS Classification and Hazard Statements:

ACUTE TOXICITY, ORAL-Category 4-H302 Harmful if swallowed.

ACUTE TOXICITY, DERMAL-Category 4-H312 Harmful in contact with skin.

ACUTE TOXICITY, INHALATION-Category 4-H332 Harmful if inhaled.

EYE DAMAGE-Category 1-H318 Causes serious eye damage.

EYE IRRITATION-Category 2A-H319 Causes serious eye irritation.

FLAMMABLE LIQUID-Category 4-H227 Combustible liquid.

SKIN CORROSIVES-Category 1A-H314 Causes severe skin burns and eye damage.

SKIN IRRITATION-Category 2-H315 Causes skin irritation.

SPECIFIC TARGET ORGAN TOXICITY(SINGLE EXPOSURE)-Category 3-H336 May cause drowsiness or dizziness.

GHS Precautionary Statements

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust or mists. (If inhalable particles of dusts or mists may occur during use)

Wash hands and arms thoroughly after handling.

Do not eat, drink, or smoke while using this product.

Use only outdoors or in well-ventilated area.

Wear protective gloves. Wear eye or face protection.

If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell.

If swallowed: rinse mouth. Do NOT induce vomiting.

If on skin(or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If inhaled: Remove victim to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center or doctor if you feel unwell.

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

Store in well-ventilated place. Keep container tightly closed.

Store in well ventilated place. Keep cool.

Store locked up.

Dispose of contents in accordance with local, regional, national and international regulations.

SAFETY DATA SHEET

Date Printed: 9/7/2016

Date Revised: 6/1/2015 12:

Page 2 of 8

Product Code: 45-ASC-RTU

GHS Label Symbol(s)

GHS 05 - CORROSION

GHS 07 - EXCLAMATION MARK

Signal word

DANGER

Emergency Overview:

KEEP OUT OF REACH OF CHILDREN. Avoid contact with eyes, skin and clothing. Harmful if swallowed. Use only with adequate ventilation.

3. Composition/Information on Ingredients

COMPONENT	CAS #	VAPOR PRESSURE		WEIGHT PERCENT
		mm Hg	@ TEMP	
* 2-BUTOXYETHANOL ACGIH TWA 20 ppm OSHA PEL TWA 240 mg/m3 OSHA PEL TWA 50 ppm	111-76-2	.89	25C	20-40
* PHOSPHORIC ACID OSHA-TWA 1mg/m3 OSHA-STEL 3mg/m3 TLV-TWA 1mg/m3 TLV-STEL 3mg/m3	7664-38-2	.01	N/A	5-10

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

4. First Aid Measures

Eyes:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Skin:

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion:

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious; give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. DO NOT INDUCE VOMITING. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention

SAFETY DATA SHEET

Date Printed: 9/7/2016

Date Revised: 6/1/2015 12:

Page 3 of 8

Product Code: 45-ASC-RTU

immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.

Note to Physicians:

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire Fighting Measures

Explosive Limits:

Lower explosive limit: N/A

Upper explosive limit: N/A

Hazardous Combustion Products:

None known.

Extinguishing Media:

Use dry chemical, carbon dioxide, water spray (fog) or foam. Do not use water jet.

Firefighting Procedures:

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

Small Spill:

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spill:

FOR NON-EMERGENCY PERSONNEL: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. FOR EMERGENCY RESPONDERS: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental Precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods/Materials for Containment and Cleaning Up:

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and Storage

SAFETY DATA SHEET

Date Printed: 9/7/2016

Date Revised: 6/1/2015 12:

Page 4 of 8

Product Code: 45-ASC-RTU

Handling:

PRECAUTIONS FOR SAFE HANDLING: Protective measures. Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Storage:

CONDITIONS FOR SAFE STORAGE: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls/Personal Protection

See Section 3 for Ingredient Occupational Exposure Limits

Engineering Controls:

Use only with adequate ventilation. Use process enclosures, local ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of a work day.

Personal Protective Equipment

Respiratory Protection:

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Skin Protection:

Hand Protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other Skin Protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Eye Protection:

SAFETY DATA SHEET

Date Printed: 9/7/2016

Date Revised: 6/1/2015 12:

Page 5 of 8

Product Code: 45-ASC-RTU

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible safety glasses with side-shields should be worn, unless the assessment indicates a higher degree of protection.

9. Physical and Chemical Properties

Boiling Point: 340F

Freezing Point/Melting Point: N/A

Flash Point: 153F

Flash Method: N/A

Vapor Pressure: (See Section 3 of this SDS)

Vapor Density: Heavier than air

Solubility in Water: Soluble

Evaporation Rate:

Flammability (solid, gas): Not flammable.

Specific Gravity: .9955

Odor: Characteristic

Odor Threshold: Not available.

Appearance: Clear liquid

Viscosity: Not available

Partition Coefficient: Not available.

Autoignition Temperature:

Decomposition Temperature:

10. Stability and Reactivity

Chemical Stability (Conditions to Avoid):

This product is stable under normal conditions of storage and use. Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. Avoid temperatures exceeding the flash point. Avoid contact with incompatible materials.

Incompatibility:

Strong oxidizing agents.

Hazardous Decomposition Products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous Polymerization:

Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological Information

Eye:

Causes serious eye damage.

Causes serious eye irritation.

Skin:

Irritating to skin.

Causes severe skin burns.

Ingestion:

Harmful if swallowed.

Causes digestive tract burns. Harmful if swallowed.

Inhalation:

Harmful if inhaled.

May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Subchronic:

SAFETY DATA SHEET

Date Printed: 9/7/2016

Date Revised: 6/1/2015 12:

Page 6 of 8

Product Code: 45-ASC-RTU

No known significant effects or critical hazards.

Chronic/Carcinogenicity:

No known significant effects or critical hazards.

International Agency for Research on Cancer (IARC)

No known significant effects or critical hazards.

National Toxicology Program (NTP)

No known significant effects or critical hazards.

Occupational Safety and Health Administration (OSHA)

No known significant effects or critical hazards.

Teratology:

No known significant effects or critical hazards.

Reproduction:

No known significant effects or critical hazards.

Mutagenicity:

No known significant effects or critical hazards.

Acute Toxicity Values:

The acute effects of this product have not been tested.

Data on individual components are tabulated below:

No known significant effects or critical hazards.

CAS#7664-38-2 Chemical name: Phosphoric Acid

Oral LD50 rat: 1530 mg/kg

Dermal LD50 rabbit: 2740 mg/kg

STOT-single exposure:

CAS#111-76-2 Chemical name: 2-Butoxyethanol

May cause drowsiness or dizziness.

STOT-repeated exposure:

No known significant effects or critical hazards.

Routes of Exposure:

No specific data.

12. Ecological Information

Environmental Fate:

Not available

Environmental Toxicity:

Not available

Chemical Fate Information:

Not available

Other Adverse Effects:

Not available

13. Disposal Considerations

Waste Disposal Method:

The generation of waste should be avoided or minimized whenever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Contaminated Materials:

Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

SAFETY DATA SHEET

Date Printed: 9/7/2016

Date Revised: 6/1/2015 12:

Page 7 of 8

Product Code: 45-ASC-RTU

Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information

Domestic (Land, DOT)

UN Number: NA1993

UN Proper Shipping Name: (REGULATED IN BULK CONTAINERS GREATER THAN 119 GALLONS CAPACITY)

Combustible liquid, n.o.s.

Transport Hazard Class: N/A

Packing Group: III

Special Precautions for User:

All packaging must be reviewed for suitability prior to shipment, and compliance with applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

DOT information on packaging may be different from that listed.

15. Regulatory Information

U.S. Federal Regulations

CAS#7664-38-2 Chemical name: Phosphoric Acid is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Comprehensive Environmental Response, Compensation & Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4.

CAS#111-76-2 Chemical name: 2-Butoxyethanol

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Acute Health Hazard
Chronic Health Hazard

CAS#7664-38-2 Chemical name: Phosphoric Acid is listed on CERCLA Hazardous Substance List (40 CFR 302.4).

Superfund Amendments and Reauthorization Act of 1986 (SARA):

Immediate Hazard

SARA Section 313: (See Section 3 of this SDS)

* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

CAS#111-76-2 Chemical name: 2-Butoxyethanol is subject to reporting requirements of SARA 313.

International Regulations

Canadian WHMIS:

No known significant effects or critical hazards.

Canadian Environmental Protection Act (CEPA):

No known significant effects or critical hazards.

European Inventory of Existing Commercial Chemical Substances (EINECS):

No known significant effects or critical hazards.

State Regulations:

CAS#7664-38-2 Chemical name: Phosphoric Acid

US California Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs. tit.22,69502.3, subd.(a)).

US Right-to-Know Act: Massachusetts, New Jersey, Pennsylvania and Rhode Island.

SAFETY DATA SHEET

Date Printed: 9/7/2016

Date Revised: 6/1/2015 12:

Page 8 of 8

Product Code: 45-ASC-RTU

CAS#111-76-2 Chemical name: 2-Butoxyethanol

Listed on the following states Right to Know inventories:

New Jersey, Pennsylvania

16. Other Information

HMIS CODES: **H F R P**
 2* 2 0 X

Volatile Organic Compounds (Less Water and Exempt Solvents,calc): 6.9 lb/gl

Abbreviation Key

MFR = Manufacturer Recommended Exposure Limit

PEL = Permissible Exposure Limit

STEL= Short Term Exposure Limit

C = Ceiling: Allowable Exposure Level Should Not Be Exceeded For Any Time Period

SKIN= Skin Absorption Must Be Considered As A Route Of Exposure

TWA = Time Weighted Average

IDLH = Immediatley Dangerous to Life or Health

PPM = Parts Per Million

Manufacturer Disclaimer:

The information contained herein is based on data considered to be accurate. While the information is believed to be reliable, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Since the use of this information and the conditions and the use of this product are controlled by the user, it is the user's obligation to determine the conditions of safe use of the product.

*****END OF SDS*****

ENGINEERED MARINE COATINGS