Safety Data Sheet

* * * Section 1 - Product and Company Identification * * *

Material: CERAM-KOTE AF Marine Part A

Manufacturer Information

CERAM-KOTE COATINGS INCORPORATED
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MIS1807449

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For Brazil: 0-800-591-6042, China: 400-120-0751,
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* * * Section 2 - Hazards Identification * * *

GHS Classification:

Flammable Liquids - Category 2
Skin Corrosion/Irritation - Category 2
Eye Damage/Irritation - Category 2
Skin Sensitization - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3
Aquatic Toxicity Chronic - Category 3

GHS LABEL ELEMENTS Symbol(s)

Signal Word

Danger

Hazard Statements

Highly flammable liquid and vapor. Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause respiratory irritation, drowsiness or dizziness. Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/eye protection/face protection.
Wash thoroughly after handling.
Avoid breathing mist/vapours/spray.
Contaminated work clothing should not be allowed out of the workplace.
Use only outdoors or in a well-ventilated area.

Response

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: get medical advice/attention.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
In case of fire: Use foam, carbon dioxide, or dry chemical for extinction.
Avoid release to the environment.

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
1344-28-1	Aluminum oxide	10-30
25068-38-6	Bisphenol A-epichlorohydrin polymer	6-20
1314-13-2	Zinc Oxide	10-15
28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether	1-8
41638-13-5	Oxirane, 2,2'-[oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bis-	2-6
78-93-3	MEK	2-5
108-38-3	Xylene	2-5

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes

Flush with running water for at least 15 minutes. Seek medical attention.

First Aid: Skin

Wash with flowing water. Remove contaminated clothing and launder before re-wearing. If irritation persists, seek medical attention.

First Aid: Ingestion

DO NOT induce vomiting. Seek medical attention.

First Aid: Inhalation

Remove individual to fresh air. If breathing is difficult, administer oxygen and obtain medical aid.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.
Highly flammable liquid and vapour. Prevent smoking, open flame, static and other electrical sparking. Excessive heat may cause lids of containers to pop open from excessive vapour pressure.

Hazardous Combustion Products

Primary combustion products are carbon monoxide, carbon dioxide, and low molecular weight hydrocarbons. Other undetermined compounds could be released in small quantities.

Extinguishing Media

Use foam, carbon dioxide, or dry chemical.

Unsuitable Extinguishing Media

None.

Fire Fighting Equipment/Instructions

Treat as a flammable liquid type fire. In a sustained fire wear self-contained breathing apparatus and full protective gear.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Stop the flow of material, if this is without risk.

Materials and Methods for Clean-Up

Land Spill: Prevent material from entering sewers or waterways. Remove all ignition sources. Ventilate area. Absorb with inert materials (e.g. vermiculite or sand) and place in a closed container for proper disposal. Wash spill area well with trisodium phosphate and water.

Water Spill: Material is mostly insoluble. The material will sink. Notify local environmental, health and wildlife authorities, and water intake operators. Contain with booms and minimize spread on water. Disperse any remaining residue to reduce aquatic harm.

Air Release: Spills of this material may release volatile organic compounds into the air. Spills should be cleaned or covered to prevent volatilization.

Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

Wear appropriate protective equipment and clothing during clean-up.

Environmental Precautions

Avoid release to the environment.

Prevention of Secondary Hazards

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapors or mists of this product. Ground/bond container and receiving equipment. Use non-sparking tools.

Storage Procedures

Keep away from heat and ignition source.

Incompatibilities

Avoid organic peroxides and oxidizers.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Substance Exposure Limits

Aluminum oxide (215-691-6)

Austria:	10 mg/m3 STEL [KZW] (alveolar dust, respirable fraction, smoke, 2 X 60 min)
	5 mg/m3 TWA [TMW] (alveolar dust, respirable fraction, smoke)
Belgium:	1 mg/m3 TWA (as Al)
Denmark:	5 mg/m3 TWA (total, as Al); 2 mg/m3 TWA (respirable, as Al)
France:	10 mg/m3 TWA [VME]
Germany:	4 mg/m3 TWA MAK (dust, inhalable fraction); 1.5 mg/m3 TWA MAK (dust, respirable fraction)
Greece:	10 mg/m3 TWA (inhalable fraction); 5 mg/m3 TWA (respirable fraction)
Portugal:	10 mg/m3 TWA [VLE-MP] (particulate matter containing no Asbestos and < 1% Crystalline silica)
Spain:	10 mg/m3 TWA [VLA-ED]
Sweden:	5 mg/m3 LLV (total dust, as Al); 2 mg/m3 LLV (respirable dust, as Al)

Xylene (203-550-1) and MEK (78-93-9)

ACGIH:	75 ppm STEL 20 ppm TWA
Austria:	50 ppm STEL [KZW] (4 X 15 min); 208 mg/m3 STEL [KZW] (4 X 15 min) 20 ppm TWA [TMW]; 83 mg/m3 TWA [TMW] skin notation
Belgium:	50 ppm STEL; 208 mg/m3 STEL 20 ppm TWA; 83 mg/m3 TWA 20 ppm
Denmark:	TWA; 83 mg/m3 TWA Potential for cutaneous absorption
Finland:	50 ppm STEL; 210 mg/m3 STEL 20 ppm TWA; 80 mg/m3 TWA
France:	50 ppm STEL [VLCT]; 208 mg/m3 STEL [VLCT] 20 ppm TWA [VME] (restrictive limit); 83 mg/m3 TWA [VME] (restrictive limit)
Germany:	20 ppm TWA AGW (exposure factor 2); 83 mg/m3 TWA AGW (exposure factor 2) 3.5 mg/L Medium: urine Time: end of shift Parameter: 4-Methylpentan-2-one 20 ppm TWA MAK; 83 mg/m3 TWA MAK 40 ppm Peak; 166 mg/m3 Peak
Greece:	100 ppm STEL; 410 mg/m3 STEL 100 ppm TWA; 410 mg/m3 TWA 50 ppm
Ireland:	STEL; 208 mg/m3 STEL 20 ppm TWA; 83 mg/m3 TWA Potential for cutaneous absorption
Italy:	20 ppm TWA; 83 mg/m3 TWA
Netherlands:	208 mg/m3 STEL 104 mg/m3 TWA
Portugal:	50 ppm TWA [VLE-MP]
Spain:	50 ppm STEL [VLA-EC]; 208 mg/m3 STEL [VLA-EC] 20 ppm TWA [VLA-ED] (indicative limit value); 83 mg/m3 TWA [VLA-ED] (indicative limit value)
Sweden:	25 ppm LLV; 100 mg/m3 LLV 50 ppm STV; 200 mg/m3 STV

Engineering Measures

General dilution ventilation and/or exhaust ventilation should be provided as necessary to maintain exposures below regulatory limits.

Personal Protective Equipment: Respiratory

If irritation occurs, or if the TLV or PEL is exceeded, use a NIOSH approved air purifying respirator with organic vapor cartridges or canisters, or supplied air respirators.

Personal Protective Equipment: Hands

Use chemical resistant gloves such as neoprene or natural rubber gloves.

Personal Protective Equipment: Eyes

Chemical protective goggles.

Personal Protective Equipment: Skin and Body

Loose fitting long sleeved shirt and long pants are recommended.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Translucent	**Odor:**	Aromatic
Physical State:	Liquid	**pH:**	Slight Acidic
Vapor Pressure:	ND	**Vapor Density:**	3.2 (Air=1)
Boiling Point:	116°C (241°F)	**Melting Point:**	ND
Solubility (H2O):	Insoluble	**Specific Gravity:**	ND
Evaporation Rate:	ND	**VOC:**	1.76 lb/gal (210.92 g/l) less water
Viscosity:	1200 to 2000 cP	**Bulk Density:**	13 lb/gal (5.9 kg)
Octanol/H2O Coeff.:	ND	**Flash Point:**	17.8°C (64°F) when catalyzed
Flash Point Method:	ND	**Upper Flammability Limit (UFL):**	8.0
Lower Flammability Limit (LFL):	1.2	**Burning Rate:**	ND
Auto Ignition:	399°C (750°F)		

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Product may undergo hazardous polymerization.

Conditions to Avoid

Avoid excessive heat, contamination and prolonged storage above 70°F (21.1°C).

Incompatible Products

Avoid organic peroxides and oxidizers.

Hazardous Decomposition Products

May form: carbon dioxide, carbon monoxide, and low molecular weight hydrocarbons.

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

Component Analysis - LD50/LC50

Aluminum oxide (1344-28-1)

Oral LD50 Rat >5000 mg/kg

Bisphenol A-epichlorohydrin polymer (25068-38-6)

Oral LD50 Rat 11400 mg/kg

Methyl ethyl ketone (78-93-3)

Inhalation LC50 Mouse 32 g/m3 4 h; Oral LD50 Rat 2737 mg/kg; Dermal LD50 Rabbit 6480 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

May cause dryness, cracking and possible dermatitis with prolonged or repeated contact.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Direct eye contance may cause immediate irritation with redness, burning, tearing and blurred vision.

Potential Health Effects: Ingestion

May cause mouth, throat and gastrointestinal irritation, nausea, vomiting, and diarrhea if ingested.

Potential Health Effects: Inhalation

May cause respiratory irritation.

Respiratory Organs Sensitization/Skin Sensitization

May cause an allergic skin reaction.

Generative Cell Mutagenicity

Product is not reported to have any mutagenic effects.

Carcinogenicity

A: General Product Information

Product is not reported to have any carcinogenic effects.

B: Component Carcinogenicity

Talc (14807-96-6)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (containing no asbestos fibers)

IARC: Monograph 93 [2010] (inhaled); Supplement 7 [1987]; Monograph 42 [1987] (Group 3 (not classifiable))

Methyl ethyl ketone (78-93-3) and Xylene (108-38-3)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC: Monograph 101 [2012] (Group 2B (possibly carcinogenic to humans))

Reproductive Toxicity

Product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

May cause respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgment, and general weakness. In lab animals, overexposure by inhalation to MIBK has been reported to cause liver and kidney abnormalities, and lung and brain damage.

Specified Target Organ General Toxicity: Repeated Exposure

Product is not reported to have any specific target organ toxicity repeat exposure effects.

Aspiration Respiratory Organs Hazard

Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

Harmful to aquatic life with long lasting effects.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Test & Species		Conditions
96 Hr LC50 Brachydanio rerio	>100 g/L [semi-static]	

Methyl ethyl ketone (78-93-3)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	3130 - 3320 mg/L [flow-through]	
48 Hr EC50 Daphnia magna	>520 mg/L	
48 Hr EC50 Daphnia magna	5091 mg/L	
48 Hr EC50 Daphnia magna	4025 - 6440 mg/L [Static]	

Xylene (108-38-3)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	496 - 514 mg/L [flow-through]	
96 Hr EC50 Pseudokirchneriella subcapitata	400 mg/L	
48 Hr EC50 Daphnia magna	170 mg/L	

Persistence/Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for the product.

* * * Section 13 - Disposal Considerations * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 14 - Transportation Information * * *

IATA Information

Shipping Name: Resin Solution
UN #: 1866 **Hazard Class:** 3 **Packing Group:** III

ICAO Information

Shipping Name: Resin Solution
UN #: 1866 **Hazard Class:** 3 **Packing Group:** III

IMDG Information

Shipping Name: Resin Solution
UN #: 1866 **Hazard Class:** 3 **Packing Group:** III

* * * Section 15 - Regulatory Information * * *

EU MARKING AND LABELLING:

Symbol(s):

F Xi

Risk Phrases:

R11 Highly flammable.

R36/38 Irritating to eyes and skin.

Substance Analysis - Inventory

Component/CAS	EC #	EEC	CAN	TSCA
Aluminum oxide 1344-28-1	215-691-6	EINECS	DSL	Yes
Bisphenol A-epichlorohydrin polymer 25068-38-6	500-033-5	No	DSL	Yes
Methyl ethyl ketone 78-93-3	201-159-0	EINECS	DSL	Yes
Phenol, polymer with formaldehyde, glycidyl ether 28064-14-4	-	No	DSL	Yes
Oxirane, 2,2'-[oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bis- 41638-13-5	-	No	DSL	Yes
Methyl isobutyl ketone 108-10-1	203-550-1	EINECS	DSL	Yes

* * * Section 16 - Other Information * * *

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; AS = Standards Australia; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EU = European Union; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IMO = International Maritime Organization; IATA = International Air Transport Association; MAK = Maximum Concentration Value in the Workplace; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NOHSC = National Occupational Health & Safety Commission; NTP = National Toxicology Program; STEL = Short-term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average

Literature References

Available on request.

End of Sheet