



## Safety Data Sheet

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

**Material Name: CERAM-KOTE TZM Part A**

#### Manufacturer Information

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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

#### GHS LABEL ELEMENTS

##### Symbol(s)



##### Signal Word

Danger

##### Hazard Statements

- Highly flammable liquid and vapour.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause an allergic skin reaction.
- May cause respiratory irritation, drowsiness or dizziness.

##### 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.

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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	42-75
25068-38-6	Bisphenol A-epichlorohydrin polymer	10-25
78-93-3	Methyl ethyl ketone	7-15
67762-90-7	Dimethyl silicone polymer with silica	1-3

### \*\*\* 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.

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## 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 sources.

### Incompatibilities

Avoid organic peroxides and oxidizers.

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

### Substance Exposure Limits

#### Aluminum oxide (215-691-6)

Austria:	10 mg/m <sup>3</sup> STEL [KZW] (alveolar dust, respirable fraction, smoke, 2 X 60 min) 5 mg/m <sup>3</sup> TWA [TMW] (alveolar dust, respirable fraction, smoke)
Belgium:	1 mg/m <sup>3</sup> TWA (as Al)
Denmark:	5 mg/m <sup>3</sup> TWA (total, as Al); 2 mg/m <sup>3</sup> TWA (respirable, as Al)
France:	10 mg/m <sup>3</sup> TWA [VME]
Germany:	4 mg/m <sup>3</sup> TWA MAK (dust, inhalable fraction); 1.5 mg/m <sup>3</sup> TWA MAK (dust, respirable fraction)
Greece:	10 mg/m <sup>3</sup> TWA (inhalable fraction); 5 mg/m <sup>3</sup> TWA (respirable fraction)
Portugal:	10 mg/m <sup>3</sup> TWA [VLE-MP] (particulate matter containing no Asbestos and < 1% Crystalline silica)
Spain:	10 mg/m <sup>3</sup> TWA [VLA-ED]
Sweden:	5 mg/m <sup>3</sup> LLV (total dust, as Al); 2 mg/m <sup>3</sup> LLV (respirable dust, as Al)

#### Methyl ethyl ketone (201-159-0)

ACGIH:	300 ppm STEL 200 ppm TWA
Austria:	200 ppm STEL [KZW] (4 X 30 min); 590 mg/m <sup>3</sup> STEL [KZW] (4 X 30 min) 100 ppm TWA [TMW]; 295 mg/m <sup>3</sup> TWA [TMW] skin notation
Belgium:	300 ppm STEL; 900 mg/m <sup>3</sup> STEL 200 ppm TWA; 600 mg/m <sup>3</sup> TWA
Denmark:	50 ppm TWA; 145 mg/m <sup>3</sup> TWA Potential for cutaneous absorption 100
Finland:	ppm STEL; 300 mg/m <sup>3</sup> STEL Potential for cutaneous absorption
France:	300 ppm STEL [VLCT] (restrictive limit); 900 mg/m <sup>3</sup> STEL [VLCT] (restrictive limit) 200 ppm TWA [VME] (restrictive limit); 600 mg/m <sup>3</sup> TWA [VME] (restrictive limit)
Germany:	200 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 1); 600 mg/m <sup>3</sup> TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 1) 5 mg/L Medium: urine Time: end of shift Parameter: 2-Butanone 200 ppm TWA MAK; 600 mg/m <sup>3</sup> TWA MAK 200 ppm Peak; 600 mg/m <sup>3</sup> Peak 300
Greece:	ppm STEL; 900 mg/m <sup>3</sup> STEL 200 ppm TWA; 600 mg/m <sup>3</sup> TWA
Ireland:	300 ppm STEL; 900 mg/m <sup>3</sup> STEL 200 ppm TWA; 600 mg/m <sup>3</sup> TWA Potential for cutaneous absorption
Italy:	200 ppm TWA; 600 mg/m <sup>3</sup> TWA
Netherlands:	900 mg/m <sup>3</sup> STEL 590 mg/m <sup>3</sup> TWA skin notation
Portugal:	200 ppm TWA [VLE-MP]
Spain:	300 ppm STEL [VLA-EC]; 900 mg/m <sup>3</sup> STEL [VLA-EC] 200 ppm TWA [VLA-ED] (indicative limit value); 600 mg/m <sup>3</sup> TWA [VLA-ED] (indicative limit value)
Sweden:	50 ppm LLV; 150 mg/m <sup>3</sup> LLV 100 ppm STV; 300 mg/m <sup>3</sup> STV

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## 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 \*\*\*

<b>Appearance:</b>	Translucent	<b>Odor:</b>	Aromatic
<b>Physical State:</b>	Liquid	<b>pH:</b>	Slight Acidic
<b>Vapor Pressure:</b>	ND	<b>Vapor Density:</b>	3.2 (Air=1)
<b>Boiling Point:</b>	116°C (241°F)	<b>Melting Point:</b>	ND
<b>Solubility (H<sub>2</sub>O):</b>	Insoluble	<b>Specific Gravity:</b>	1.98 +/- 0.1
<b>Evaporation Rate:</b>	ND	<b>VOC:</b>	1.76 lb/gal (210.92 g/l) less water
<b>Viscosity:</b>	700 to 1000 cP	<b>Bulk Density:</b>	15.2 lb/gal (6.9 kg) +/- 0.50
<b>Octanol/H<sub>2</sub>O Coeff.:</b>	ND	<b>Flash Point:</b>	23.2°C (74°F)
<b>Flash Point Method:</b>	ND	<b>Upper Flammability Limit (UFL):</b>	8.0
<b>Lower Flammability Limit (LFL):</b>	ND	<b>Burning Rate:</b>	ND
<b>Auto Ignition:</b>	ND		

### \*\*\* 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)

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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/m<sup>3</sup> 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 contact 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**

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

### **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.

### **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.

<b>*** Section 12 - Ecological Information ***</b>
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### **Ecotoxicity**

#### **A: General Product Information**

#### **B: Component Analysis - Ecotoxicity - Aquatic Toxicity**

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## 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 \*\*\*

### ADR Information

**Shipping Name:** Resin Solution

**UN #:** 1866 **Hazard Class:** 3 **Packing Group:** III

### 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 N

#### Risk Phrases:

R11 Highly flammable.

R36/38 Irritating to eyes and skin.

R43 May cause sensitisation by skin contact

R67 Vapours may cause drowsiness and dizziness

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## 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
Dimethyl silicone polymer with silica 67762-90-7	-	No	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