



®

Safety Data Sheet

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

Material Name: CERAM-KOTE 54 Part B (LMA-MR005 Form 1 Spec)

Manufacturer Information

CERAM-KOTE® COATINGS INCORPORATED
1800 Industrial Drive
Big Spring, TX USA 79720

Phone: 432-263-8497

Emergency # CHEMTREC +001 703-527-3887

*** Section 2 - Hazards Identification ***

GHS Classification:

- Acute Toxicity Oral - Category 4
- Acute Toxicity Dermal - Category 4
- Skin Corrosion/Irritation - Category 1B
- Skin Sensitization - Category 1
- Toxic to Reproduction - Category 2
- Specific Target Organ Toxicity (Single Exposure) - Category 3

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

Danger

Hazard Statements

- Harmful if swallowed
- Harmful in contact with skin.
- Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility. May cause respiratory irritation.

Precautionary Statements

Prevention

- Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe vapours.
- Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear respiratory protection.
- Wash thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.

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Obtain special instructions before use.

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

Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwe.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Storage

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
111-40-0	Diethylenetriamine	30-60
80-05-7	Bisphenol A	13-30

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

First Aid: Eyes

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.

First Aid: Skin

Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

First Aid: 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. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. 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.

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First Aid: Inhalation

Get medical attention immediately. Call a poison center or physician. 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. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Protection of First-Aiders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

General Fire Hazards

See Section 9 for Flammability Properties.
In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous Combustion Products

Decomposition products may include the following materials: carbon dioxide, carbon monoxide and nitrogen oxides.

Extinguishing Media

Use an extinguishing agent suitable for the surrounding fire.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

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

Recovery and Neutralization

Attempt to reclaim the free product, if this is possible.

Materials and Methods for Clean-Up

Small spill: Stop leak if without risk. Move containers from spill area. 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: Stop leak if without risk. Move containers from spill area. Approach the 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 spilled product.

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Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

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 spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Put on appropriate personal protective equipment.

Environmental Precautions

Avoid dispersal of spilt 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).

Prevention of Secondary Hazards

None.

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

Handling Procedures

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 vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage Procedures

Store between the following temperatures: 2 to 40°C (35.6 to 104°F). Store in accordance with local regulations. 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. 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.

Incompatibilities

Strong acids, strong bases, strong oxidising agents.

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

Component Exposure Limits

Diethylenetriamine (203-865-4)

ACGIH:	1 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route
Austria:	1 ppm TWA [TMW]; 4 mg/m ³ TWA [TMW]
Belgium:	1 ppm TWA; 4.3 mg/m ³ TWA Skin
Denmark:	1 ppm TWA; 4 mg/m ³ TWA Potential for cutaneous absorption
Finland:	3 ppm STEL; 13 mg/m ³ STEL 1 ppm TWA; 4.3 mg/m ³ TWA Potential for cutaneous absorption
France:	1 ppm TWA [VME]; 4 mg/m ³ TWA [VME]
Greece:	1 ppm TWA; 4 mg/m ³ TWA 1 ppm
Ireland:	TWA; 4 mg/m ³ TWA Potential for cutaneous absorption
Portugal:	1 ppm TWA [VLE-MP]
Spain:	1 ppm TWA [VLA-ED]; 4.3 mg/m ³ TWA [VLA-ED] skin - potential for cutaneous exposure sensitizer
Sweden:	1 ppm LLV; 4.5 mg/m ³ LLV 2 ppm STV; 10 mg/m ³ STV

Bisphenol A (201-245-8)

Austria:	5 mg/m ³ STEL [KZW] (inhalable fraction) 5 mg/m ³ TWA [TMW] (inhalable fraction) Sensitizer
Belgium:	10 mg/m ³ TWA
Denmark:	3 mg/m ³ TWA (particulate matter)
France:	10 mg/m ³ TWA [VME] (inhalable particulates)
Germany:	5 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, inhalable fraction, exposure factor 1) 5 mg/m ³ TWA MAK (inhalable fraction) 5 mg/m ³ Peak (inhalable fraction)
Netherlands:	10 mg/m ³ TWA (respirable)
Spain:	10 mg/m ³ TWA [VLA-ED] (indicative limit value)

Engineering Measures

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protective Equipment: Respiratory

In case of inadequate ventilation wear respiratory protection. 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.

Personal Protective Equipment: Hands

Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.

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Personal Protective Equipment: Eyes

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.

Personal Protective Equipment: Skin and Body

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.

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

Appearance:	Yellow, clear	Odor:	Amine-like
Physical State:	Liquid	pH:	11 (Conc. % w/w): 50%
Vapor Pressure:	0.1 kPA (20°C)	Vapor Density:	Not Available
Boiling Point:	>200°C	Melting Point:	Not Available
Solubility (H₂O):	Partially soluble	Specific Gravity:	Not Available
Evaporation Rate:	Not Available	VOC:	Not Available
Viscosity:	Dynamic: 3400-5000 mPas @25°C	Octanol/H₂O Coeff.:	Not Available
Flash Point:	110°C	Flash Point Method:	PMCC
Upper Flammability Limit (UFL):	Not Available	Lower Flammability Limit (LFL):	Not Available
Burning Rate:	Not Available	Auto Ignition:	Not Available

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

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

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

Conditions to Avoid

No specific data.

Incompatible Products

Strong acids, strong bases, strong oxidising agents.

Hazardous Decomposition Products

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

*** Section 11 - Toxicological Information ***

Acute Toxicity

Component Analysis - LD50/LC50

Diethylenetriamine (111-40-0)

Oral LD50 Rat 819 mg/kg; Dermal LD50 Rabbit 672 mg/kg

Bisphenol A (80-05-7)

Oral LD50 Rat 3200 mg/kg; Dermal LD50 Rabbit 3000 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

Causes severe burns. Harmful in contact with skin.

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Potential Health Effects: Eye Critical Damage/ Stimulativeness

Causes serious eye damage.

Potential Health Effects: Ingestion

May cause burns to mouth, throat and stomach.

Potential Health Effects: Inhalation

May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Respiratory Organs Sensitization/Skin Sensitization

May cause an allergic skin reaction.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects.

Carcinogenicity

A: General Product Information

This 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

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

May cause respiratory irritation.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ toxicity repeated exposure effects.

Aspiration Respiratory Organs Hazard

Not an aspiration hazard.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

This product is not reported to have any ecotoxicity effects.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Diethylenetriamine (111-40-0)

Test & Species

Conditions

96 Hr LC50 Leuciscus idus	430 mg/L [semi-static]
96 Hr LC50 Poecilia reticulata	248 mg/L [static]
96 Hr LC50 Poecilia reticulata	1014 mg/L [semi-static]
72 Hr EC50 Pseudokirchneriella subcapitata	1164 mg/L
96 Hr EC50 Pseudokirchneriella subcapitata	345.6 mg/L
96 Hr EC50 Desmodesmus subspicatus	592 mg/L
24 Hr EC50 Daphnia magna	37 mg/L
48 Hr EC50 Daphnia magna	16 mg/L

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Bisphenol A (80-05-7)

Test & Species

96 Hr LC50 Pimephales promelas	3.6-5.4 mg/L [flow-through]	Conditions
96 Hr LC50 Pimephales promelas	4.0-5.5 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	4 mg/L	
96 Hr LC50 Brachydanio rerio	9.9 mg/L [static]	
96 Hr EC50 Pseudokirchneriella subcapitata	2.5 mg/L	
48 Hr EC50 Daphnia magna	10.2 mg/L	
48 Hr EC50 Daphnia magna	3.9 mg/L	
48 Hr EC50 Daphnia magna	9.2 - 11.4 mg/L [Static]	

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: Diethylenetriamine

UN #: 2079 **Hazard Class:** 8 **Packing Group:** II

ICAO Information

Shipping Name: Diethylenetriamine

UN #: 2079 **Hazard Class:** 8 **Packing Group:** II

IMDG Information

Shipping Name: Diethylenetriamine

UN #: 2079 **Hazard Class:** 8 **Packing Group:** II

*** Section 15 - Regulatory Information ***

Regulatory Information

EU MARKING AND LABELING:

Symbol(s):

C

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Risk Phrases:

R34 Causes burns.
R21/22 Harmful in contact with skin and if swallowed. R43
May cause sensitization by skin contact. R62 Possible risk
of impaired fertility.

Substance Analysis - Inventory

Component/CAS	EC #	EEC	CAN	TSCA
Diethylenetriamine 111-40-0	203-865-4	EINECS	DSL	Yes
Bisphenol A 80-05-7	201-245-8	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