Safety Data Sheet

Section 1 – Product and Company Identification

Material: Ceram-Kote Wearshield Part B

Manufacterer Information:

CERAM-KOTE COATINGS INCORPORATED
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Big Spring, TX 79720
MIS1807449

Phone:	+1 432-263-8497
Emergency # ChemTel:	+1 800-255-3924
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Australia:	+1 300-954-583
Brazil:	+0 800-100-4086
China:	400-120-0751
India:	000-800-100-4086
Mexico:	800-099-0731

Section 2 – Hazards Identification

GHS Classification:

Skin Irrit. 2	H315
Eye Dam. 1	H318
Skin Sens. 1	H317
Aquatic Chronic 2	H411

Classification according to Directive 67/548/EEC [DSD]

Xi:	R41, R38, R43
N:	R51, R53

See section 16 for the full text of the R Phrases or H statements declared above.
See section 11 for more detailed information on health effects and symptoms

Label Elements:

Hazard pictograms

Signal word: Danger

Hazard Statements:
H318 – Causes serious eye damage
H315 – Causes skin irritation
H317 – May cause an allergic skin reaction
H411 – toxic to aquatic life with long lasting effects

Precautionary Statements:
P264 – Wash hands thoroughly after handling
P272 – Contaminated work clothing must not be allowed out of the workplace
P273 – Avoid release to the environment
P280 – Wear protective gloves/protective clothing/eye protection/face protection
P302+P352 – IF ON SKIN: Wash with plenty of soap and water
P305 – IF IN EYES: Rinse cautiously with water for several minutes. Immediately call a poison center or physician
P321 – See first aid section of this safety data sheet
P332+P313 – If skin irritation occurs, get medical advice/attention.

P333+P313 – If skin irritation or rash occurs, get medical advice/attention.
P362_P364 – Take off contaminated clothing and wash it before reuse.
P363 – Wash contaminated clothing before reuse.
P391 – Collect spillage
P501 – Dispose of contents/container in accordance with local, regional, national, international regulations

Section 3 – Composition / information on ingredients

Name	Product Identifier	%	GHS classification
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	CAS 68082-29-1	60 – 100	Skin Irrit. 2 H315 Eye Irrit 2 H319 Skin Sens 1 H317 Aquatic Chronic 2, H411

*** Section 4 – First Aid Measures***

Description of first aid measures

Eye contact: 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.

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 my be delayed. The exposed person may need to be kept under sedation.

Skin contact: 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.

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 to 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.

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.

Most important symptoms and effects, both acute and delayed

Eye Contact:	Causes serious eye damage
Inhalation:	May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact:	Causes skin irritation. Irritation. May cause an allergic skin reaction.
Ingestion:	May cause burns to mouth, throat and stomach

Indication of any immediate medical attention and special treatment needed

Notes to physician:	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.
Specific treatments:	Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48-hours.

*** Section 5 – Firefighting Measures***

Extinguishing Media

Suitable extinguishing media:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media:	None known

Special hazards arising from the substance or mixture

Hazards from the substance or mixture:	In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides

Advice for firefighters

Firefighting instructions:	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.
Protection during firefighting:	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.
Additional information:	Not explosive

*** Section 6 – Accidental release measures***

Personal precautions, protective equipment and emergency procedures

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 spilt material. Do not breathe 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 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and material for containment and cleaning 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

*** Section 7 – Handling and Storage***

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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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.
Hygiene measures:	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.

Conditions for safe storage, including any incompatibilities

Storage:	Store between the following temperatures: 2 to 40C (35.6 to 104F). 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.
Storage Class:	Storage class 10, Environmentally hazardous liquids

Specific end use(s)

No additional information available

*** Section 8 – Exposure controls/personal protection***

Control parameters

Occupational exposure limits	No exposure limit value known
Recommended monitoring procedures	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN689 (Workplace atmospheres – Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres – Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents). European Standard EN 482 (Workplace atmospheres – General requirements for the performance of procedures for the measurement of chemical

Derived effect levels

No DEL's available

Predicted effect concentrations

No PEC's available

Exposure Controls:

Appropriate engineering controls:	Ensure good ventilation of the workstation.
Personal protective equipment:	Avoid all unnecessary exposure.
Hand protection:	Wear protective gloves.
Eye protection:	Chemical goggles or safety glasses. Safety glasses.
Skin and body protection:	Wear suitable protective clothing.
Respiratory protection:	Wear appropriate mask.
Environmental exposure controls:	Avoid release to the environment.
Other information:	Do not eat, drink, or smoke during use.

*** Section 9 – Physical and chemical properties***

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	Brown
Odor:	Amine-like
Freezing point:	No data available
Boiling point:	No data available
Flash point:	Closed cup >200°C
Relative evaporation rate	No data available
Percent Solids (calculated)	100
Density (calculated)	1.7 g/l
Viscosity at 20°C	Viscous
Water solvability	Insoluble
pH:	10.8

*** Section 10 – Stability and reactivity***

Reactivity:
The product is non-reactive under normal conditions of use, storage, and transport.
Chemical stability:
The product is stable
Possibility of hazardous reactions
Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:
No specific data
Incompatible materials:
Strong acids. Strong bases. Strong oxidizing agents.
Hazardous decomposition products:
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

*** Section 11 – Toxicological information***

Acute toxicity

Product / ingredient	Endpoint	Species	Result	Exposure
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	LD 50 Dermal	Rat – Male, Female	>2000 mg/kg	-
	LD 50 Oral	Rat - Female	>2000 mg/kg	-

Conclusion / Summary: No additional information

Irritation / Corrosion:

Product / ingredient	Test	Species	Route of exposure	Result
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	OECD 439 – In Vitro Skin Irritation – reconstructed Human epidermis Test Method	Human skin model	Skin	Irritant
	OECD 405 – Acute Eye Irritation / Corrosion	Rabbit	Eyes	Severe irritant

Conclusion / Summary

Skin: Fatty acids, C18-unsaturated, irritating to skin. Dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine

Eyes: Fatty acids, C18-unsaturated, Severely irritating to eyes. Dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine.

Respiratory: No additional information

Sensitizer:

Product / ingredient	Test	Route of exposure	Species	Result
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	OECD 429 Skin Sensitation: Local Lymph Node Assay	Skin	Mouse	Sensitizing

Conclusion / Summary:

Skin: No additional information

Respiratory: No additional information

Mutagenicity:

Product / ingredient	Test	Result
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	OECD 471 Bacterial Reverse Mutation Test	Negative
	OECD 476 in vitro Mammalian Cell Gene Mutation Test	Negative
	OECD 487 – In vitro Mammalian Cell Micronucleus Test	Negative

Conclusion / Summary: No additional information

Carcinogenicity:

Conclusion / Summary: No additional information

Reproductive toxicity:

Product / ingredient	Test	Specis	Result	Target Organs
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	Rat	Oral: Noael	-

Conclusion / Summary: No additional information

Teratogenicity:

Conclusion / Summary: No additional information

Specific target organ toxicity (single exposure):

Not available

Specific target organ toxicity (repeated exposure):

Not available

Aspiration hazard:
Not available

Information on the likely routes of exposure: Not available

Potential acute health effects:

Inhalation:	May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure:
Ingestion:	May cause burns to mouth, throat and stomach.
Skin contact:	Causes skin irritation. May cause an allergic skin reaction.
Eye contact:	Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics:

Inhalation:	No specific data
Ingestion:	Adverse symptoms may include the following: stomach pains.
Skin contact:	Adverse symptoms may include the following: pain or irritation, redness, blistering may occur.
Eye contact:	Adverse symptoms may include the following: pain,, watering redness

Delayed and immediate effects and also chronic effects from short and long term exposure:

Short term exposure

Potential immediate effects:	No specific data.
Potential delayed effects:	No specific data.

Long term exposure

Potential immediate effects:	No specific data.
Potential delayed effects:	No specific data.

Potential chronic health effects:

Product / ingredient	Test	Result Type	Result	Target Organs
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	OECD 422 Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	NOAEL	1000 mg/kg/d	-

Conclusion / Summary: No additional information
General: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

*** Section 12 – Ecological information***

Toxicity:

Product / ingredient	Test	Endpoint	Exposure	Species	Result
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	OECD 201 Alga, Growth Inhibition Test	Acute EC50	72 hrs static	Algae	4.34 mg/l
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute EC50	3 hrs static	Bacteria	384 mg/l
	OECD 202 *Daphnia sp.* Acute Immobilization Test	Acute EC50	48 hrs static	Daphnia	7.07 mg/l
	OECD 203 Fish, Acute Toxicity Test	Acute LC50	96 hrs	Fish	7.07 mg/l
	OECD 201 Alga, Growth Inhibition Test	Chronic EC10	72 hrs static	Algae	1.78 mg/l

Conclusion / Summary: No additional information

Persistence and degradability:

Product / ingredient	Test	Period	Result
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	OECD 301B Ready Biodegradability – CO2 Evolution Test	74 days	0 – 70%

Conclusion / Summary: No additional information

Bioaccumulative potential:

Product / ingredient	$LogP_{ow}$	BCF	Potential
Fatty acids, C18-unsatd., dimers oligomeric reaction products with tall-oil fatty acids and triethylenetriamine	10.34	-	high

*** Section 13 – Disposal considerations***

Waste treatment methods:

Product

Methods of disposal:	The generation of waste should be avoided or minimized wherever 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.
Hazardous waste:	Yes.

European waste catalogue (EWC)

Waste Code:	07 02 04
Waste designation:	Other organic solvents, washing liquids and mother liquor

Packaging

Methods of disposal:	The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special Precautions:	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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

*** Section 14 – Transport information***

Department of Transportation (DOT)

In accordance with DOT	Not regulated

Transport by Sea (IMDG)

UN Number:	3082
Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (Dimer fatty acid (c18) polyamidoamine resin)
Class:	9
Packing Group:	III

Transport by Air (IATA)

UN Number:	3082
Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S. (Dimer fatty acid (c18) polyamidoamine resin)
Class:	9
Packing Group:	III
Instruction “cargo” (ICAO)	964
Instruction “passenger” (ICAO)	964
Instruction “passenger” - Limited Quantities (ICAO)	Y964

*** Section 15 – Regulatory Information***

Laws and regulation about health, safety and environment specific to the substance or mixture:
Classification in agreement with CEE 67/548 (29th APT); DM 28/02/2006 and Dm 22/03/2007; D.Lgs. 14/03/2003 n. 65, Dlgs 260/2004, DM 3 april 2007; 1999/45 pilicy, 60/2001, 8/2006 – Dlgs. 145/2008; DM 5 may 2008 and with GHS criteria.

Chemical Safety Assessment (CSA): Non available data

For professional users only:
The user will have to be careful and refer to the following regulation:
Dlgs 81/2008 – (Safety Single Reference – Text) Evaluation of the risk of exposure to chemical agents.
Dlgs 152/2006 – Single text on the environment

*** Section 16 – Other Information***

R-Phrases list:
R21 Harmful in contact with skin
R21/23 Harmful in contact with skin and by inhalation
R26 Very toxic by inhalation
R34 Causes burns
R37 Irritating to respiratory system
R41 Risk of serious damage to eyes
R43 May cause sensitization by skin contact
R52 Harmful to aquatic organisms
R53 May cause long term adverse effects in the aquatic environment

List of H-hazard statements:
H302 Harmful if swallowed
H312 Harmful in contact with skin
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H330 Fatal if inhaled
H335 May cause respiratory irritation
H361F Suspected damage of fertility
H412 Harmful to aquatic life with long lasting effects

This safety data sheet revokes and substitutes all the previous ones. Changes made with respect to the previous version: all sections have been modified in compliance with Reg. CE 453/2010 regulation.

The information in this sheet is based on our knowledge on the above reported date. They refer exclusively to the product and can not represent warranty of any particular quality. The user has to make sure of the suitability and thoroughness of that information as related to the specific use he has to make of it. This sheet cancels and substitutes any previous edition. The product must not be used for purposes other than those indicated at point 1. Responsibilities are not taken for improper use: the user must always respect the general and special safety and hygiend regulations of the work as well as of health and environment protection.