

Product Name: CERAMER
Product No.: 01 KYWA005
Substance Code: 75232
Version Date: 06/15/2003
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Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: CERAMER or CERAMER PLUS
PRODUCT NO.: 01 KYWA005
SUBSTANCE CODE: 75232

SYNONYMS: POLYPHENYLENE SULFONE
BENZENE, 1,4-DICHLORO-, POLYMER WITH SODIUM SULFIDE, OXIDIZED

MANUFACTURER: CERAMER GmbH
Gottlieb - Keim - Strasse 60
D - 95448 Bayreuth
GERMANY

CERAMER is a registered trademark of Ticona.

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER
US EPA TSCA NAME AND CAS: BENZENE, 1,4-DICHLORO-, POLYMER WITH SODIUM SULFIDE, OXIDIZED	200644-84-4
POLY(1,4-PHENYLENE SULFONE)	31833-61-1

This product is not hazardous as defined by the OSHA Hazard Communications Standard (29CFR 1910.1200).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Appearance and odor: Light beige / grey powder with mild odor.

Combustion and decomposition may produce hazardous vapors/gases. Polymer dust/powder has a dust explosion hazard class rating of ST-1 (capable of dust explosion). Hot polymer can cause thermal burns on contact with skin or eyes.

POTENTIAL HEALTH EFFECTS:

Routes of Exposure:

Skin and eye contact, inhalation.

Signs and Symptoms of Exposure:

No specific information available.

IMMEDIATE EFFECTS:

Skin:

Hot material has the potential to cause thermal burns.

Eyes:

No specific information available. Polymer particulates may cause mechanical irritation.

Inhalation:

No specific information available. Polymer particulates may be considered an inert nuisance particulate. Overheating in processing may generate hazardous vapors/gases.

Ingestion:

Practically non-toxic. See Section 11.

EMERGENCY:

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E-MAIL: emergency@ceramer.com

PRODUCT INFORMATION:

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3. HAZARDS IDENTIFICATION (continued)

DELAYED/LONG TERM EFFECTS:

No specific information available.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

No specific information available.

4. FIRST AID MEASURES

SKIN:

Wash with soap and water after handling.

EYES:

Flush with plenty of water. Seek medical attention if discomfort persists, and to remove foreign body.

INHALATION:

Remove to fresh air. Seek medical attention if difficulties in breathing occur.

INGESTION:

If a significant quantity has been swallowed, give two glasses of water to dilute. Seek medical attention.

NOTE TO PHYSICIANS:

This product is essentially inert and nontoxic. However, if it is heated at too high a temperature or if it is burns, gases may be released (see Sections 5 and 10 for off-gases). Gases that may be formed are extremely foul smelling, even at low and relatively non-toxic concentrations. Patients who have been exposed to off-gases may need to have their arterial blood gases and carboxyhemoglobin levels checked. If the carboxyhemoglobin levels are normal, the patients may still have suffered asphyxia from carbon dioxide replacing oxygen if they were exposed in an enclosed space. While it is unlikely that enough hydrogen sulfide would be formed to cause hydrogen sulfide poisoning, the possibility should be considered if the clinical picture is consistent (similar to cyanide toxicity). Sulfur oxides are respiratory tract irritants. Other irritant gases may also have formed in lesser amounts. If patients may have inhaled high concentrations of irritating fumes, they should be monitored for delayed onset pulmonary edema. Sulfides and mercaptanes can cause nausea and headache as a result of their foul odor.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flashpoint: Not applicable

Ignition Temperature: > 480 deg C (> 896 deg F)

Polymer dust/powder has a dust explosion hazard class rating of ST-1 (capable of dust explosion).

HAZARDOUS PRODUCTS OF COMBUSTION:

Carbon monoxide and sulfur dioxide.

EXTINGUISHING MEDIA:

Water spray, foam, carbon dioxide, or dry chemical.

FIRE FIGHTING INSTRUCTIONS:

Firefighters should wear self-contained breathing apparatus and full fire-fighting turn-out gear (bunker gear). Keep personnel removed from and upwind of fire. Water should be used to keep fire-exposed containers cool. Water, foam and dry chemical may cause damage to electrical equipment.

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6. ACCIDENTAL RELEASE MEASURES

* For more information, see regulatory section 15.

PROCEDURES IN CASE OF SPILL OR LEAK:

Contain any dust to minimize contaminated area and facilitate clean up and disposal. Sweep or gather up and place in proper container for recovery or disposal. Dispose of all waste materials in accordance with Federal, State and local requirements.

7. HANDLING AND STORAGE

HANDLING:

Do not handle hot material without appropriate protective equipment. Maintain good housekeeping in work areas. Do not exceed recommended process temperatures to minimize release of decomposition products. Do not smoke in areas where polymer dust is present. Appropriate measures should be taken to control the generation and accumulation of dust during processing operations. Polymer dust/powder has a dust explosion hazard class rating of ST-1 (capable of dust explosion).

STORAGE:

No special storage procedures are necessary. May be stored indefinitely at a temperature of < 40 deg C (<104 deg F).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Local Exhaust:

Recommended when appropriate to control employee exposure to dust or process vapors.

General:

May not be adequate as the sole means to control employee exposure.

GENERAL PROTECTIVE MEASURES:

Avoid skin or eye contact with hot material.

PERSONAL PROTECTIVE EQUIPMENT:

Skin:

When thermal or melt processing, wear long pants, long sleeves, well insulated gloves, and face shield when there is a chance of contact.

Eyes:

Wear protective safety eye wear, as appropriate, to prevent contact with dust from processing operations.

Inhalation:

A NIOSH approved respirator is recommended if there is a possibility of dust generation above permissible exposure limits, or if decomposition vapors may be generated.

EXPOSURE GUIDELINES:

OSHA PEL (nuisance/inert dust):	15 mg/cu m (total)
	5 mg/cu m (respirable)
ACGIH TLV (nuisance particulates)**	10 mg/cu m (total)
	3 mg/cu m (respirable)

** Ceramer GmbH recommended limit.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Light beige/grey powder
ODOR: Mild
PHYSICAL STATE: Solid
MELTING POINT: Decomposes
SOLUBILITY (H2O): Insoluble
DENSITY: Ceramer: 1.44 g/cm³ at 20 deg C (68 deg F)
Ceramer Plus: 1.54 g/cm³ at 20 deg C (68 deg F)
VAPOR PRESSURE: Not applicable
GLASS TRANSITION TEMPERATURE: > 330 deg C (> 626 deg F)

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:
Stable under ordinary conditions of use and storage.

CONDITIONS TO AVOID:
Do not heat above 450 deg C (842 deg F) (thermal decomposition).

INCOMPATIBILITY:
No specific information available.

HAZARDOUS DECOMPOSITION PRODUCTS:
Sulfur dioxides, phenyl sulfides, dichlorobenzene, phenyl mercaptan, hydrogen sulfide, aromatic compounds, chlorinated aromatic compounds, carbonyl sulfide, and sulfur compounds.

HAZARDOUS POLYMERIZATION:
Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY:
LD50 > 5000 mg/kg (rat).

12. ECOLOGICAL INFORMATION

Product is insoluble in water.
This material has no harmful effect on the environment.

13. DISPOSAL CONSIDERATIONS

Incinerate or landfill in accordance with Federal, State and local regulations. Incinerator must be approved for sulfur containing wastes. This product as shipped, would not be designated a RCRA hazardous waste under present EPA regulations.

Recycling is encouraged. For recycling information, consult manufacturer.

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14. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME:
Not regulated.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS:

Ceramer (Poly(1,4-phenylene sulfone)) is not currently listed on the TSCA Inventory, but meets the requirements for the TSCA Polymer Exemption.

This product does not contain any toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40 CFR 372.

16. OTHER INFORMATION

HAZARD RATINGS:

	HEALTH	FLAMM	REACT	OTHER
NFPA	1	1	0	
HMIS	0	1	0	

Note: These ratings are as determined by Ticona.

DISCLAIMER:

The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Ceramer GmbH makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

The enclosed information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.

This product is not intended for use in medical or dental implants.

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