



Material Safety Data Sheet

**CHEMTREC Transportation
Emergency Phone: 800-424-9300**

**Pittsburgh Poison Control
Center
Health Emergency No.: 412-681-6669**

•NOTE: The CHEMTREC Transportation
•Emergency Phone is to be used only in the
•event of chemical emergencies involving a
•spill, leak, fire, exposure or accident involving
•chemicals

Section 1 - Chemical Product / Company Information

Product Name: CARBOMASTIC 15 PART A
Revision Date: 01/26/2006
Identification Number: PLMSDS 0185A1NL
Supercedes : 12/20/2005
Product Use/Class: Epoxy Mastic - FOR INDUSTRIAL USE ONLY
Preparer: Regulatory, Department
Manufacturer: Carboline Company
350 Hanley Industrial Ct.
St. Louis, MO 63144

Section 2 - Composition / Information On Ingredients

Chemical Name	CAS Number	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA-CEIL
EPOXY RESIN	025068-38-6	55.0	NE	NE	NE	NE
ALUMINUM	007429-90-5	20.0	5 MGM3	N/E	15 MGM3	NE
TRIPHENYL PHOSPHITE	000101-02-0	15.0	NE	N/E	NE	NE

Section 3 - Hazards Identification

Emergency Overview: Warning! May cause allergic skin reactions. May cause irritation.

Effects Of Overexposure - Eye Contact: May cause eye irritation.

Effects Of Overexposure - Skin Contact: May cause allergic skin reaction. Direct skin contact may cause irritation.

Effects Of Overexposure - Inhalation: May cause nose and throat irritation.

Effects Of Overexposure - Ingestion: May be harmful if swallowed.

Effects Of Overexposure - Chronic Hazards: No Information.

Primary Route(s) Of Entry: Skin Contact, Inhalation

Medical Conditions Prone to Aggravation by Exposure: If sensitized to amines, epoxies, or other chemicals do not use. See a physician if a medical condition exists.

Section 4 - First Aid Measures

First Aid - Eye Contact: If material gets into eyes, flush with water immediately for 15 minutes. Consult a physician.

First Aid - Skin Contact: In case of contact, wash skin immediately with soap and water.

First Aid - Inhalation: If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe.

First Aid - Ingestion: If swallowed do not induce vomiting. Seek immediate medical attention.

Section 5 - Fire Fighting Measures

Flash Point, F: 201 F (93 C)
(Setaflash)

Lower Explosive Limit, %: Not Applicable
Upper Explosive Limit, %: Not Applicable

Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam, Water Fog

Unusual Fire And Explosion Hazards: This product contains less than 1% volatile components. The amount of vapors that could accumulate are minimal. However, vapors are heavier than air and could travel long distances, ignite, and flashback. Eliminate all ignition sources. Keep away from sparks, open flames, and heat sources. All electrical equipment and installations should be made and grounded in accordance with the National Electrical Code. In areas where explosion hazards exist, workers should be required to use nonferrous tools and to wear conductive and non-sparking shoes.

Special Firefighting Procedures: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and equipment. Follow exposure controls/personal protection guidelines in Section 8. Contain and soak up residual with an absorbent (clay or sand). Take up absorbant material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section 15 for SARA Title III and CERCLA information.

Section 7 - Handling And Storage

Handling: Do not get in eyes, on skin, or on clothing. Keep container tightly closed when not in use. Wear personal protection equipment. Do not breathe vapors. Wash thoroughly after handling. If pouring or transferring materials, ground all containers and tools. Do not weld, heat, cut or drill on full or empty containers. Use only in accordance with Carboline application instructions, container label and Product Data Sheet. Avoid breathing vapors or spray mist.

Storage: Keep away from heat, sparks, open flames and oxidizing agents. Keep containers closed. Store in a cool, dry place with adequate ventilation.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

Respiratory Protection: Use only with ventilation to keep levels below exposure guidelines listed in Section 2. User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure, or not able to monitor, use MSHA/NISOH approved supplied air respirator. Follow all current OSHA requirements for respirator use.

Skin Protection: Recommend impervious gloves and clothing to avoid skin contact. If material penetrates to skin, change gloves and clothing. The use of protective creams may be beneficial to certain individuals. Protective creams should be applied before exposure.

Eye Protection: Recommend safety glasses with side shields or chemical goggles to avoid eye contact.

Other protective equipment: Eye wash and safety showers should be readily available.

Hygienic Practices: Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and allow hazardous materials to pass through. Check shoes carefully after soaking before reuse.

Section 9 - Physical And Chemical Properties

Boiling Range:	Not Determined - Not Determined	Vapor Density:	Heavier than Air
Odor:	Epoxy	Odor Threshold:	N/D
Appearance:	Viscous Liquid, Aluminum, Red or Green in color	Evaporation Rate:	Slower than Ether
Solubility in H2O:	Not Determined		
Freeze Point:	N/A	Specific Gravity:	1.24
Vapor Pressure:	Not Determined	PH:	Not Determined
Physical State:	Liquid		

(See section 16 for abbreviation legend)

Section 10 - Stability And Reactivity

Conditions To Avoid: Heat, sparks and open flames.

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe any fumes or smoke from these operations.

Hazardous Polymerization: Will not occur under normal conditions.

Stability: This product is stable under normal storage conditions.

Section 11 - Toxicological Information

Product LD50: N/D

Product LC50: N/D

Chemical Name	CAS Number	LD50	LC50
EPOXY RESIN	025068-38-6	11.4G/KG RAT,ORAL	>20ML/KG SKIN,SENSITIZER
ALUMINUM	007429-90-5	NOT AVAILABLE	NOT AVAILABLE
TRIPHENYL PHOSPHITE	000101-02-0	NOT AVAILABLE	NOT AVAILABLE

Section 12 - Ecological Information

Ecological Information: No data

Section 13 - Disposal Information

Disposal Information: Dispose of in accordance with State, Local, and Federal Environmental regulations. Responsibility for proper waste disposal is with the owner of the waste.

Section 14 - Transportation Information

DOT Proper Shipping Name:	Paint, Not Regulated	Packing Group:	N/A
DOT Technical Name:	N/A	Hazard Subclass:	N/A
DOT Hazard Class:	None	Resp. Guide	N/A
		Page:	
DOT UN/NA Number:	None		

Section 15 - Regulatory Information

CERCLA - SARA HAZARD CATEGORY

This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS Number
ALUMINUM	007429-90-5

TOXIC SUBSTANCES CONTROL ACT

All components of this product are listed on the TSCA inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

Chemical Name	CAS Number
POLYTETRAFLUOROETHYLENE	9002-84-0

U.S. STATE REGULATIONS AS FOLLOWS:

NEW JERSEY RIGHT-TO-KNOW

The following materials are non-hazardous, but are among the top five components in this product.

<u>Chemical Name</u>	<u>CAS Number</u>
POLYSTYRENE	9003-53-6
IRON OXIDE	1332-37-2

PENNSYLVANIA RIGHT-TO-KNOW

The following non-hazardous ingredients are present in the product at greater than 3%.

<u>Chemical Name</u>	<u>CAS Number</u>
POLYSTYRENE	9003-53-6
IRON OXIDE	1332-37-2

CALIFORNIA PROPOSITION 65

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

No California Proposition 65 Carcinogens exist

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards:

No California Proposition 65 Reproductive Toxins exist

INTERNATIONAL REGULATIONS AS FOLLOWS:

CANADIAN WHMIS

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: D2B

Section 16 - Other Information

HMIS Ratings

Health: 2 **Flammability:** 1 **Reactivity:** 1 **Personal Protection:** X

VOLATILE ORGANIC COMPOUNDS, GR/LTR MIXED (UNTHINNED): 88

REASON FOR REVISION: Changes made in Section(s): 15

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations



Material Safety Data Sheet

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Emergency Phone: 800-424-9300**

**Pittsburgh Poison Control
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Health Emergency No.: 412-681-6669**

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•Emergency Phone is to be used only in the
•event of chemical emergencies involving a
•spill, leak, fire, exposure or accident involving
•chemicals

Section 1 - Chemical Product / Company Information

Product Name: CARBOMASTIC 15 PART B
Revision Date: 01/26/2006
Identification Number: PLMSDS 0185B1NL
Supercedes : 07/29/2005
Product Use/Class: Epoxy Mastic - FOR INDUSTRIAL USE ONLY
Preparer: Regulatory, Department
Manufacturer: Carboline Company
350 Hanley Industrial Ct.
St. Louis, MO 63144

Section 2 - Composition / Information On Ingredients

Chemical Name	CAS Number	Weight %	Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA-CEIL
MICA	012001-26-2	45.0		N/E	N/E	N/E	N/E
MICROCRYSTALLINE SILICA	014808-60-7	20.0		0.05 MG/M3 (respirable)	N/E	0.1 MG/M3 (respirable)	N/E
BENZYL ALCOHOL	000100-51-6	10.0		N/E	N/E	N/E	N/E
ALIPHATIC POLYAMINE	CTS-112	10.0		NE	NE	NE	NE
DIAMINOCYCLOHEXANE	000694-83-7	5.0		N/E	N/E	N/E	N/E
TOLUENE	108-88-3	5.0		50 PPM	N/E	150 PPM	NE
META-XYLENE	000108-38-3	5.0		434 Mg/M3	651 Mg/M3	434 Mg/M3	N/E
PM ACETATE	108-65-6	5.0		100PPM	NE	150PPM	NE
SILICA, CRYSTALLINE FREE	112945-52-5	5.0		10 MG/M3, inhalable particles	N/E	5 MG/M3 respirable fraction	N/E
PARA-XYLENE	000106-42-3	5.0		434 Mg/M3	651 Mg/M3	434 Mg/M3	N/E
ETHYL BENZENE	100-41-4	5.0		100 PPM	125 PPM	435 MGM3	N/E

Section 3 - Hazards Identification

Emergency Overview: FLAMMABLE liquid and vapor. Contains SILICA which can cause cancer. Risk of Cancer depends on duration and level of exposure. Skin and eye irritant.

Effects Of Overexposure - Eye Contact: May cause eye burns.

Effects Of Overexposure - Skin Contact: May cause skin burns. May cause allergic skin reaction. May be harmful if absorbed through the skin.

Effects Of Overexposure - Inhalation: Harmful if inhaled, may affect the brain or nervous system, causing dizziness, headache, or nausea. May cause nose and throat irritation. May cause lung irritation. May cause allergic respiratory reaction, effects may be permanent.

Effects Of Overexposure - Ingestion: Harmful if swallowed.

Effects Of Overexposure - Chronic Hazards: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Crystalline silica is known to cause silicosis, a noncancerous lung disease. Exposure is by route of inhalation. If material is in a liquid matrix it is unlikely to be inhaled.

Primary Route(s) Of Entry: Skin Contact, Skin Absorption, Inhalation

Medical Conditions Prone to Aggravation by Exposure: If you have a condition that could be aggravated by exposure to dust or organic vapors, see a physician prior to use. If sensitized to amines, epoxies, or other chemicals do not use. See a physician if a medical condition exists.

Section 4 - First Aid Measures

First Aid - Eye Contact: If material gets into eyes, flush with water immediately for 15 minutes. Consult a physician.

First Aid - Skin Contact: In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Launder clothing before reuse. If rash or irritation develops, consult a physician.

First Aid - Inhalation: If inhaled, remove to fresh air. Administer oxygen if necessary. Consult a physician if symptoms persist or exposure was severe.

First Aid - Ingestion: If swallowed do not induce vomiting. Seek immediate medical attention.

Section 5 - Fire Fighting Measures

Flash Point, F: 76 F (24 C)
(Setaflash)

Lower Explosive Limit, %: 1.0%
Upper Explosive Limit, %: 13.1%

Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam, Water Fog

Unusual Fire And Explosion Hazards: Flammable Liquid. Vapors are heavier than air and will accumulate. Vapors will form explosive concentrations with air. Vapors travel long distances and will flashback. Use mechanical ventilation when necessary to keep percent vapor below the "Lower Explosion Level" (LEL). Eliminate all ignition sources. Keep away from sparks, open flames and heat sources. All electric equipment and installations should be made and grounded in accordance with the National Electrical Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and to wear conductive and non-sparking shoes.

Special Firefighting Procedures: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure. Flammable. Cool fire-exposed containers using water spray.

Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and equipment. Follow exposure controls/personal protection guidelines in Section 8. Contain and soak up residual with an absorbent (clay or sand). Take up absorbant material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section 15 for

SARA Title III and CERCLA information.

Section 7 - Handling And Storage

Handling: Do not get in eyes, on skin, or on clothing. Keep container tightly closed when not in use. Wear personal protection equipment. Do not breathe vapors. Wash thoroughly after handling. If pouring or transferring materials, ground all containers and tools. Do not weld, heat, cut or drill on full or empty containers. Use only in accordance with Carboline application instructions, container label and Product Data Sheet. Avoid breathing vapors or spray mist.

Storage: Keep away from heat, sparks, open flames and oxidizing agents. Keep containers closed. Store in a cool, dry place with adequate ventilation.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

Respiratory Protection: Use only with ventilation to keep levels below exposure guidelines listed in Section 2. User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure, or not able to monitor, use MSHA/NIOSH approved supplied air respirator. Follow all current OSHA requirements for respirator use.

Skin Protection: Recommend impervious gloves and clothing to avoid skin contact. If material penetrates to skin, change gloves and clothing. The use of protective creams may be beneficial to certain individuals. Protective creams should be applied before exposure.

Eye Protection: Recommend safety glasses with side shields or chemical goggles to avoid eye contact.

Other protective equipment: Eye wash and safety showers should be readily available.

Hygienic Practices: Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and allow hazardous materials to pass through. Check shoes carefully after soaking before reuse.

Section 9 - Physical And Chemical Properties

Boiling Range:	232F (111C) - 300F (148C)	Vapor Density:	Heavier than Air
Odor:	Epoxy	Odor Threshold:	N/D
Appearance:	Viscous Liquid	Evaporation Rate:	Slower than Ether
Solubility in H2O:	Not Determined		
Freeze Point:	N/A	Specific Gravity:	1.56
Vapor Pressure:	Not Determined	PH:	Not Determined
Physical State:	Liquid		

(See section 16 for abbreviation legend)

Section 10 - Stability And Reactivity

Conditions To Avoid: Heat, sparks and open flames.

Incompatibility: Keep away from strong oxidizing agents, heat and open flames.

Hazardous Decomposition Products: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe any fumes or smoke from these operations.

Hazardous Polymerization: Will not occur under normal conditions.

Stability: This product is stable under normal storage conditions.

Section 11 - Toxicological Information

Product LD50: N/D

Product LC50: N/D

Chemical Name	CAS Number	LD50	LC50
MICA	012001-26-2	NOT AVAILABLE	NOT AVAILABLE
MICROCRYSTALLINE SILICA	014808-60-7	NOT AVAILABLE	NOT AVAILABLE
BENZYL ALCOHOL	000100-51-6	1230MG/KG RAT,ORAL	1000PPM/8HRS RAT,INHALATION
ALIPHATIC POLYAMINE	CTS-112	>2300 MG/KG ORAL RAT EST	>10 MG/L / 1 HR EST
DIAMINOCYCLOHEXANE	000694-83-7	1752 MG/KG,RAT,ORAL	NOT AVAILABLE
TOLUENE	108-88-3	5.0 G/KG RAT ORAL, 14G/KG RABBIT DERMAL	8000 PPM/4HRS, RAT, INHALATION
META-XYLENE	000108-38-3	NOT AVAILABLE	NOT AVAILABLE
PM ACETATE	108-65-6	NOT AVAILABLE	NOT AVAILABLE
SILICA, CRYSTALLINE FREE	112945-52-5	>10000 MG/KG, ORAL, RAT	0.139 MG/L / 4 HRS RAT, INH
PARA-XYLENE	000106-42-3	NOT AVAILABLE	NOT AVAILABLE
ETHYL BENZENE	100-41-4	3500 MG/KG RAT,ORAL	NOT AVAILABLE

Section 12 - Ecological Information

Ecological Information: No data

Section 13 - Disposal Information

Disposal Information: Dispose of in accordance with State, Local, and Federal Environmental regulations. Responsibility for proper waste disposal is with the owner of the waste.

Section 14 - Transportation Information

DOT Proper Shipping Name:	Paint	Packing Group:	III
DOT Technical Name:	N/A	Hazard Subclass:	N/A
DOT Hazard Class:	3	Resp. Guide	128
		Page:	
DOT UN/NA Number:	1263		

Section 15 - Regulatory Information

CERCLA - SARA HAZARD CATEGORY

This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

<u>Chemical Name</u>	<u>CAS Number</u>
TOLUENE	108-88-3
META-XYLENE	000108-38-3
PARA-XYLENE	000106-42-3
ETHYL BENZENE	100-41-4

TOXIC SUBSTANCES CONTROL ACT

All components of this product are listed on the TSCA inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

<u>Chemical Name</u>	<u>CAS Number</u>
PARA-XYLENE	000106-42-3

U.S. STATE REGULATIONS AS FOLLOWS:

NEW JERSEY RIGHT-TO-KNOW

The following materials are non-hazardous, but are among the top five components in this product.

<u>Chemical Name</u>	<u>CAS Number</u>
HYDROCARBON RESIN	TRADE SECRET

PENNSYLVANIA RIGHT-TO-KNOW

The following non-hazardous ingredients are present in the product at greater than 3%.

<u>Chemical Name</u>	<u>CAS Number</u>
HYDROCARBON RESIN	TRADE SECRET

CALIFORNIA PROPOSITION 65

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

<u>Chemical Name</u>	<u>CAS Number</u>
MICROCRYSTALLINE SILICA	014808-60-7
ETHYL BENZENE	100-41-4

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards:

<u>Chemical Name</u>	<u>CAS Number</u>
TOLUENE	108-88-3

INTERNATIONAL REGULATIONS AS FOLLOWS:

CANADIAN WHMIS

This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

CANADIAN WHMIS CLASS: B2 D2A D2B

Section 16 - Other Information

HMIS Ratings

Health: 2

Flammability: 3

Reactivity: 0

Personal Protection: X

VOLATILE ORGANIC COMPOUNDS, GR/LTR MIXED (UNTHINNED): 88

REASON FOR REVISION: Changes made in Section(s) : 15

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations