

Material Safety Data Sheet

PC-CLEAR, part A

MSDS No. 90831-71

Date of Preparation: 8-31-2009

Revision:2

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: PC-CLEAR, part A

Chemical Formula: Mixture

CAS Number: Mixture

General Use: Adhesive

Manufacturer: Protective Coating Company, Inc., 221 S. Third St., Allentown, PA 18102-4922, Phone (610) 432-3543, FAX (610) 432-5043 (9AM-5PM EST)

Section 2 - Composition / Information on Ingredients

| Ingredient Name | | CAS Number | | | | | |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Glycidyl Ethers of Bisphenol A Resin | | 25068-38-6 | | 100% | | | |
| Ingredient | OSHA PEL | | ACGIH TLV | | NIOSH REL | | NIOSH IDLH |
| | TWA | STEL | TWA | STEL | TWA | STEL | |
| Glycidyl Ethers of Bisphenol A Resin | None estab. | None estab. | None estab. | None estab. | None estab. | None estab. | None estab. |

Section 3 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

HMIS

H 1

F 1

R 0

PPE^{†B}

[†]Sec. 8

Potential Health Effects

Acute Effects

Inhalation: Inhalation only possible at elevated temperatures. May cause irritation.

Ingestion: Ingestion may cause gastrointestinal irritation.

Skin Contact: May cause skin irritation, sensitization or other allergic responses.

Eye Contact: May cause eye irritation, sensitization, or other allergic responses.

Carcinogenicity: IARC, NTP, and OSHA do not list PC-Clear, part A as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: skin and eye conditions.

Section 4 - First Aid Measures

Inhalation: Remove to fresh air.

Eye Contact: Flush with water, consult a physician.

Skin Contact: Wash with water, consult a physician.

Ingestion: Seek medical advice.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

Flash Point: 480° F

Flash Point Method: Closed Cup

Flammability Classification: IIIB

Extinguishing Media: Water spray, CO₂, dry chemicals.

Unusual Fire or Explosion Hazards: None known.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, aldehydes

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Remove with absorbent material or transfer to container suitable for transport.

Avoid allowing material to enter into any waterways: streams, rivers, sewers, etc.

Disposal: Incinerate in furnace or bury in landfill according to applicable regulations; not a hazardous waste.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Ventilation: Provide general or local exhaust ventilation systems if product is sanded or ground.

Respiratory Protection: Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.

Protective Clothing/Equipment: Wear chemically protective gloves to prevent skin contact. Wear protective eyeglasses or chemical safety goggles.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Handling Precautions: None

Storage Requirements: Storage temperature: <90°F(32°C). Store in a cool, dry, well ventilated area.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 8 - Exposure Controls / Personal Protection

Ventilation: Provide general or local exhaust ventilation systems if product is sanded or ground.

Respiratory Protection: Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.

Protective Clothing/Equipment: Wear chemically protective gloves to prevent skin contact. Wear protective eyeglasses or chemical safety goggles.

Section 9 - Physical and Chemical Properties

Physical State: liquid

Appearance and Odor: Clear, mild odor

Density: 9.7 lbs./ gallon

Specific Gravity (H₂O=1, at 4 °C): 1.17

Water Solubility: Insoluble in water

Other Solubilities: alcohols

Boiling Point: No data

% Volatile: < 1 %

Section 10 - Stability and Reactivity

Stability: PC-Clear, part A is stable.

Polymerization: Hazardous polymerization cannot occur.

Section 11- Toxicological Information

Toxicity Data:

| Lethal Dose Information(mg/kg) | | Oral (mg/kg) | Skin (mg/kg) |
|--------------------------------|--|--------------|--------------|
| Bisphenol A Epoxy Resin | | >5000 rat | 20000 rabbit |

Section 12 - Ecological Information

Ecotoxicity: No data

Environmental Fate: No data

Environmental Degradation: No data

Soil Absorption/Mobility: No data

Section 13 - Disposal Considerations

Disposal: Incinerate in furnace or bury in landfill according to applicable regulations; not a hazardous waste.

Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Not regulated

Shipping Symbols: Not applicab.

Hazard Class: Not Hazardous

ID No.: Not applicable.

Packing Group: Not determined

Label: Not required

Special Provisions (172.102):

None

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261.): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ), Not listed.

SARA 311/312 Codes: None.

SARA Toxic Chemical (40 CFR 372.65): Not listed.

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed.

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance, none

State Regulations:

Section 16 - Other Information

Storage Requirements: Storage temperature: <90°F(32°C). Store in a cool, dry, well ventilated area.

Personal Hygiene: Wash thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities.

Wash contaminated goggles, faceshield, and gloves.

Prepared By: Charles Moloney

Notes: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions- in addition to those described herein- are required. Any health hazard and safety information herein should be passed on to your customers or employees as the case may be.

Disclaimer: 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 the use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other natures are made hereunder with respect to the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

Material Safety Data Sheet

PC-CLEAR, part B

MSDS No. 90831-72

Date of Preparation: 8-31-2009

Revision:2

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: PC-CLEAR, part B

Chemical Formula: Mixture

CAS Number: Mixture

General Use: Adhesive

Manufacturer: Protective Coating Company, Inc., 221 S. Third St., Allentown, PA 18102-4922, Phone (610) 432-3543, FAX (610) 432-5043 (9AM-5PM EST)

Section 2 - Composition / Information on Ingredients

| Ingredient Name | CAS Number | |
|--------------------------|--------------|----------|
| Mercaptan Polymer | Trade Secret | 85 - 95% |
| Modified polyamine | 28063-82-3 | 5 - 10% |
| Diethylenetriamine(DETA) | 111-40-0 | 1 - 3% |

Section 3 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

HMIS
H 2
F 1
R 0
PPE†B
†Sec. 8

Potential Health Effects

Acute Effects

Inhalation: Can cause respiratory tract irritation. May cause nose, throat, and lung irritation.

Eye: May cause severe irritation with corneal injury, which may result in the permanent impairment of vision, even blindness.

Skin: May cause severe irritation to skin following prolonged or repeated contact, and may cause skin sensitization or other allergic responses.

Ingestion: If ingested, may cause burns of the mouth and throat.

Carcinogenicity: IARC, NTP, and OSHA do not list PC-CLEAR, part B as a carcinogen.

Medical Conditions Aggravated by Long-Term Exposure: skin and eye conditions.

Section 4 - First Aid Measures

Inhalation: Remove to fresh air. If effects occur, seek immediate medical attention.

Eye Contact: Flush with water for at least 30 minutes. Obtain immediate medical attention.

Skin Contact: Flush skin immediately with plenty of water for at least 15 minutes. Remove any contaminated clothing. Seek immediate medical attention.

Ingestion: Do not induce vomiting without medical advice. Drink 1 or 2 glasses of water. If a person vomits when lying on his back, place him in the recovery position. Prevent aspiration of vomit. Turn victim's head to the side. Note: Never give anything by mouth to an unconscious person.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

Flash Point: 480° F

Flash Point Method: Closed Cup

Flammability Classification: IIIB

Extinguishing Media: Water spray, CO₂, dry chemicals.

Unusual Fire or Explosion Hazards: None known.

Hazardous Combustion Products: Carbon monoxide, carbon dioxide, aldehydes

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Remove with absorbent material or transfer to container suitable for transport.

Avoid allowing material to enter into any waterways: streams, rivers, sewers, etc.

Disposal: Incinerate in furnace or bury in landfill according to applicable regulations; not a hazardous waste.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Ventilation: Provide general or local exhaust ventilation systems if product is sanded or ground.

Respiratory Protection: Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.

Protective Clothing/Equipment: Wear chemically protective gloves to prevent skin contact. Wear protective eyeglasses or chemical safety goggles

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Handling Precautions: None

Storage Requirements: Storage temperature: <90°F(32°C). Store in a cool, dry, well ventilated area.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 8 - Exposure Controls / Personal Protection

Ventilation: Provide general or local exhaust ventilation systems if product is sanded or ground.

Respiratory Protection: Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator.

Protective Clothing/Equipment: Wear chemically protective gloves to prevent skin contact. Wear protective eyeglasses or chemical safety goggles.

| Ingredient | OSHA PEL | | ACGIH TLV | | NIOSH REL | | NIOSH IDLH |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | TWA | STEL | TWA | STEL | TWA | STEL | |
| Mercaptan Polymer | None estab. | None estab. | None estab. | None estab. | None estab. | None estab. | None estab. |
| Modified polyamine | None estab. | none estab. | none estab. | none estab. | none estab. | none estab. | None estab. |
| Diethylenetriamine | 1 ppm. | none estab. | 1 ppm | none estab. | 1 ppm | none estab. | None estab. |

Section 9 - Physical and Chemical Properties

Physical State: liquid

Appearance and Odor: clear, mercaptan odor

Density: 9.7 lbs./ gallon

Specific Gravity (H₂O=1, at 4 °C): 1.17

Water Solubility: Insoluble in water

Other Solubilities: alcohols

Boiling Point: No data

% Volatile: < 1 %

Section 10 - Stability and Reactivity

Stability: PC-CLEAR, part B is stable.

Polymerization: Hazardous polymerization cannot occur.

Section 11- Toxicological Information

Toxicity Data:

| Lethal Dose Information(mg/kg) | | Oral (mg/kg) rat | Skin (mg/kg) - rabbit | Inhalation -4hrs. (mg/l) - rat |
|--------------------------------|--|------------------|-----------------------|--------------------------------|
| Diethylenetriamine | | 1080 | 1090 | >0.07 - <0.3 |

Section 12 - Ecological Information

Ecotoxicity: No data

Environmental Fate: No data

Environmental Degradation: No data

Soil Absorption/Mobility: No data

Section 13 - Disposal Considerations

Disposal: Incinerate in furnace or bury in landfill according to applicable regulations; not a hazardous waste. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

| | |
|--|---|
| Shipping Name: Not regulated | Packing Group: Not determined |
| Shipping Symbols: Not applicable. | Label: Not required |
| Hazard Class: Not Hazardous | Special Provisions (172.102): None |
| ID No.: Not applicable. | |

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)
 RCRA Hazardous Waste Classification (40 CFR 261.): Not classified
 CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112
 CERCLA Reportable Quantity (RQ), Not listed.
 SARA 311/312 Codes: None.
 SARA Toxic Chemical (40 CFR 372.65): Not listed.
 SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed.

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed
 OSHA Specifically Regulated Substance, none

State Regulations:

Section 16 - Other Information

Storage Requirements: Storage temperature: <90°F(32°C). Store in a cool, dry, well ventilated area.

Personal Hygiene: Wash thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Wash contaminated goggles, faceshield, and gloves.

Prepared By: Charles Moloney

Notes: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions- in addition to those described herein- are required. Any health hazard and safety information herein should be passed on to your customers or employees as the case may be.

Disclaimer: 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 the use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other natures are made hereunder with respect to the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.