

MATERIAL SAFETY DATA SHEET

MANUFACTURER: EMECOLE, INC.

P.O. BOX 7486, ROMEOVILLE, IL 60446

EMERGENCY TELEPHONE 800-535-5053

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: EMECOLE 302 SURFACE SEAL, PART A

SYNONYM: THERMOSETTING RESIN

CHEMICAL FAMILY: MODIFIED EPOXY RESIN

DATE: APRIL 15, 2011

SECTION II - HAZARDOUS INGREDIENTS AND OTHER COMPONENTS

<u>INGREDIENT</u>	<u>% BY WEIGHT</u>	<u>EXPOSURE LIMITS</u>	<u>CAS #</u>
Bisphenol a/diglycidyl Ether Resin	30-90	NE.	25068-38-6
Inert Powder	0-50	NE.	14807-96-6
Fumed silica	0-5		067762-90-7

SECTION III - PHYSICAL DATA

Boiling Point: >200°C

VP: >1 TORR @ 180°C

VD: >1 (air = 1)

Evaporation Rate: <1 (butyl acetate = 1)

Solubility in Water: Insoluble

SP GR: 1.32 (water = 1)

% Volatile by VL: Nil

Color: White

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: >200°F (TCC)

Flammable Limits: Acrid smoke/fumes

Extinguishing Media: Carbon dioxide, dry chemicals, foam, water spray.

Explosive Limits: LEL – NE

UEL – NE

Special fire fighting procedures: Use self-contained breathing apparatus.

Unusual fire and explosion hazards: Decomposition and combustion products may be toxic.

SECTION V – HEALTH HAZARD DATA

Primary Route(s) of Entry: Inhalation, skin contact

Toxicological Data: LD SOs provided are the lowest values for type of bisphenol A diglycidal ether resins used.

Oral LD₅₀: (rabbit) > 4000 mg/kg

Skin Irritation: (rabbits) Moderate irritation

Eye Irritation: (rabbits) Mild irritation

Sensitization: Sensitizer

PART A (CONT'D)

Effects of Overexposure: Irritation, sensitization, and dermatitis.

Medical Conditions Generally Aggravated by Exposure: Allergy, eczema, skin conditions

Carcinogenicity: None of the components of this material are listed as carcinogens by NTP, IARC, or OSHA.

In order to comply with California Proposition 65, we feel obligated to advise that some of our products may conceivably contain trace contaminants of some of the listed chemicals. While not necessarily added to our products as ingredients, some listed chemicals may be present in the raw materials from suppliers and over which we have no control. Therefore, even though some of the listed substances may not be present, a significant risk as defined by the regulations in order to comply with California law, we feel obligated to make the following statement:

WARNING: Our products may contain trace amounts of some chemicals considered by the State of California to be carcinogens or reproductive toxicants.

Emergency and first aid procedures:

Eyes: Flush with water for at least 15 minutes. If any ill effects develop, seek medical attention.

Skin: Wash with soap and water. Wash contaminated clothing before reuse.

Inhalation: Remove to fresh air and give oxygen if breathing is difficult.

Ingestion: Give large quantities of water and induce vomiting. Get medical attention.

SECTION VI – REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Elevated temperatures

Incompatibility Materials to Avoid: Strong oxidizers, strong acids or bases in bulk.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, aldehydes and other organics.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Avoid all personal contact. Wipe with rag for small spills. For larger spills, use absorbent material. Collect waste in designated container. Flush contaminated areas with water.

Waste Disposal Method: Dispose in accordance with federal, state and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Avoid breathing vapors. Use adequate ventilation.

Ventilation: Good mechanical ventilation and local exhaust.

Eye Protection: Safety glasses.

Protective Gloves: Rubber or polyethylene.

Protective Equipment: Disposable containers and paper on work area. Use of barrier cream recommended. Use appropriate equipment to prevent eye or skin contact.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Causes irritation. May cause allergic skin reaction. Avoid contact with eyes, skin or clothing. Store in cool, dry area in closed cartridges.

Other precautions: Avoid breathing vapors, use with good ventilation. Wash hands thoroughly with soap and water after every use.

Health	Flammability	Reactivity	Personal Protection
2	1	0	B

All statements, technical information and recommendations contained herein are based upon available scientific test or data which we believe to be reliable since we cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. Emecole makes no warranties, express or implied, and assumes no responsibility in connection with any use of this information.

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SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: EMECOLE 302 SURFACE SEAL, PART B

SYNONYM: EPOXY HARDENER

CHEMICAL FAMILY: MODIFIED POLYMERCAPTAN

DATE: APRIL 15, 2011

SECTION II - HAZARDOUS INGREDIENTS AND OTHER COMPONENTS

<u>INGREDIENT</u>	<u>% BY WEIGHT</u>	<u>EXPOSURE LIMITS</u>	<u>CAS #</u>
Proprietary Polymercaptans	20-40	NE.	-----
Inert Powder	60-80	NE.	14807-96-6
Fumed silica	0-5	NE.	067762-90-7

SECTION III - PHYSICAL DATA

Appearance: Paste

Boiling Point: Not Determined (>200°F)

VP: N.D.

VD: Not determined (air = 1)

Evaporation Rate: <1 (butyl acetate = 1)

Solubility in Water: Appreciable

Color: Black

SP GR: 1.91 +/- .02 (water = 1)

% Volatile by VL: <1

Odor: Skunk like, pinc -0. 1

Color: Gray

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: 185°F (PMCC)

Flammable Limits: Unknown

Extinguishing Media: Foam, dry chemicals, CO2

Explosive Limits: LEL - NE

UEL - NE

Special fire fighting procedures: Avoid breathing smoke. Use self-contained breathing apparatus.

Unusual fire and explosion hazards: None

SECTION V - HEALTH HAZARD DATA

Primary Route(s) of Entry: Inhalation, skin contact

Toxicological Data: Polyamine Resin

Oral LD0: (rat) LD50-<5 CC/KG

Skin Irritation: (rabbits) Mild irritant

Eye Irritation: (rabbits) Conjunctival irritant

PART B (CONT'D)

Effects of Overexposure: **Acute:** Will cause burns to skin and eyes. High concentrations of vapor can cause irritation of respiratory tract, nausea, and vomiting. **Chronic:** Prolonged or repeated exposure may cause asthma and skin sensitization or other allergic response.

Medical Conditions Generally Aggravated by Exposure: Allergy, eczema, skin conditions

Carcinogenicity: None of the components of this material are listed as carcinogens by NTP, IARC, or OSHA.

In order to comply with California Proposition 65, we feel obligated to advise that some of our products may conceivably contain trace contaminants of some of the listed chemicals. While not necessarily added to our products as ingredients, some listed chemicals may be present in the raw materials from suppliers and over which we have no control. Therefore, even though some of the listed substances may not be present, a significant risk as defined by the regulations in order to comply with California law, we feel obligated to make the following statement:

WARNING: Our products may contain trace amounts of some chemicals considered by the State of California to be carcinogens or reproductive toxicants.

Emergency and first aid procedures:

Eyes: Flush with water for at least 15 minutes. Seek medical attention.

Skin: Immediately deluge skin with plenty of water. Remove contaminated clothing and shoes.

Inhalation: Remove to fresh air and give oxygen if breathing is difficult. Seek medical attention

Ingestion: If swallowed and conscious, give plenty of water and induce vomiting. Seek medical attention.

SECTION VI – REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Mixing with oxidizers or epoxy resins in quantities over 1#.

Incompatibility Materials to Avoid: Strong oxidizing agents, acids.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, nitrogen oxides.

Hazardous Polymerization: Will not occur.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Soak up with inert material or scrape up. Collect waste in designated waste containers. Avoid personal contact. Flush contaminated area with water.

Waste Disposal Method: Dispose in accordance with federal, state and local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: Avoid breathing vapors. Use adequate ventilation.

Ventilation: Normal ventilation should be adequate. Local if vapors are vented.

Eye Protection: Safety glasses.

Protective Gloves: Rubber or impervious gloves recommended.

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: Store away from heat and open flame.

Other precautions: Avoid breathing vapors of heated material. Wash hands with soap and water after every use.

Adequate ventilation: Keep containers tightly closed when not in use.

Health	Flammability	Reactivity	Personal Protection
2	1	0	B

All statements, technical information and recommendations contained herein are based upon available scientific test or data which we believe to be reliable since we cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. Emecole makes no warranties, express or implied, and assumes no responsibility in connection with any use of this information.