



SAFETY DATA SHEET

Revision Date: 14-Oct-2016

Revision Number: 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name EPOXY MASTIC DEEP BASE
Product Code V160-87FR
Alternate Product Code A16087
Product Class EPOXY
Color All
Recommended use Paint
Restrictions on use No information available

Manufactured For

Benjamin Moore & Co., Limited
8775 Keele Street
Concord ON L4K 2N1
Phone: 1-800-361-5898
corotechcoatings.ca

Manufacturer

Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
Phone: 800-225-5554
corotechcoatings.com

Emergency Telephone Number(s)

CANUTEC: 613-996-6666

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the Hazardous Products Regulations (HPR: SOR/2015-17)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Aspiration toxicity	Category 1
Flammable liquids	Category 3

Label elements

Danger**Hazard statements**

Causes skin irritation
 Causes serious eye irritation
 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 May cause an allergic skin reaction
 May cause cancer
 Suspected of damaging fertility or the unborn child
 May cause respiratory irritation. May cause drowsiness or dizziness
 Causes damage to organs through prolonged or repeated exposure
 May be fatal if swallowed and enters airways
 Flammable liquid and vapor

**Appearance** liquid**Odor** solvent**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 In case of inadequate ventilation wear respiratory protection
 Contaminated work clothing should not be allowed out of the workplace
 Do not breathe dust/fume/mist/vapors/spray
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces, no smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof electrical/ventilating/lighting/equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

If exposed or concerned get medical attention

Eyes

If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists get medical attention

Skin

If skin irritation or rash occurs get medical attention

If on skin (or hair) take off immediately all contaminated clothing. Rinse skin with water

Wash contaminated clothing before reuse

Inhalation

If experiencing respiratory symptoms: Call a POISON CENTER or physician

If inhaled remove victim to fresh air and keep at rest in a position comfortable for breathing

Ingestion

If swallowed immediately call a POISON CENTER or physician

Do NOT induce vomiting

Fire

In case of fire use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

No information available

Other hazards

IMPORTANT: Designed to be mixed with other components. Mixture will have hazards of all components. Before opening packages, read all warning labels. Follow all precautions.

3. COMPOSITION INFORMATION ON COMPONENTS

Chemical Name	CAS-No	Weight % (max)
Polyamine adduct	UH0550-00-1	10 - 30%
Zinc phosphate	7779-90-0	10 - 30%
Silica, crystalline	14808-60-7	7 - 13%
Benzyl alcohol	100-51-6	5 - 10%
Titanium dioxide	13463-67-7	5 - 10%
Xylene	1330-20-7	5 - 10%
Talc	14807-96-6	5 - 10%
Propylene glycol monomethyl ether	107-98-2	1 - 5%
Ethyl benzene	100-41-4	1 - 5%
Triethylenetetramine	112-24-3	1 - 5%
Solvent naphtha, petroleum, light aromatic	64742-95-6	1 - 5%
Phenol, 2,4,6-tris[(dimethylamino)methyl]-	90-72-2	0.25 - 0.5%

4. FIRST AID MEASURES

General Advice

If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation

Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. Call a physician immediately.

Ingestion

Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician.

Protection Of First-Aiders	Use personal protective equipment.
Most Important Symptoms/Effects	No information available.
Notes To Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties	Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause flash fire.
Suitable Extinguishing Media	Foam, dry powder or water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Protective Equipment And Precautions For Firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
Hazardous Combustion Products	Burning may result in carbon dioxide, carbon monoxide and other combustion products of varying composition which may be toxic and/or irritating.
Specific Hazards Arising From The Chemical	Flammable. Flash back possible over considerable distance. Keep product and empty container away from heat and sources of ignition. Closed containers may rupture if exposed to fire or extreme heat. Thermal decomposition can lead to release of irritating gases and vapors.
Sensitivity To Mechanical Impact	No
Sensitivity To Static Discharge	Yes
Flash Point Data	
Flash Point (°F)	80
Flash Point (°C)	27
Flash Point Method	PMCC
Flammability Limits In Air	
Lower Explosion Limit	Not available
Upper Explosion Limit	Not available

NFPA **Health:** 1 **Flammability:** 3 **Instability:** 0 **Special:** Not Applicable

NFPA Legend

- 0 - Not Hazardous
- 1 - Slightly
- 2 - Moderate
- 3 - High
- 4 - Severe

The ratings assigned are only suggested ratings, the contractor/employer has ultimate responsibilities for NFPA ratings where this system is used.

Additional information regarding the NFPA rating system is available from the National Fire Protection Agency (NFPA) at www.nfpa.org.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Remove all sources of ignition. Take precautions to
-----------------------------	---

prevent flashback. Ground and bond all containers and handling equipment. Take precautionary measures against static discharges. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Other Information

Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Environmental Precautions

See Section 12 for additional Ecological Information.

Methods For Clean-Up

Dam up. Soak up with inert absorbent material. Use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not breathe vapors or spray mist. Use only in ventilated areas. Prevent vapor build-up by providing adequate ventilation during and after use.

Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Ignition and/or flash back may occur.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children.

Incompatible Materials

Incompatible with strong acids and bases and strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

No exposure limits have been established for this product.

Chemical Name	ACGIH	Alberta	British Columbia	Ontario	Quebec
Silica, crystalline	0.025 mg/m ³ - TWA	0.025 mg/m ³ - TWA	0.025 mg/m ³ - TWA	0.10 mg/m ³ - TWA	0.1 mg/m ³ - TWAEV
Titanium dioxide	10 mg/m ³ - TWA	10 mg/m ³ - TWA	10 mg/m ³ - TWA 3 mg/m ³ - TWA	10 mg/m ³ - TWA	10 mg/m ³ - TWAEV
Xylene	100 ppm - TWA 150 ppm - STEL	100 ppm - TWA 434 mg/m ³ - TWA 150 ppm - STEL 651 mg/m ³ - STEL	100 ppm - TWA 150 ppm - STEL	100 ppm - TWA 150 ppm - STEL	100 ppm - TWAEV 434 mg/m ³ - TWAEV 150 ppm - STEV 651 mg/m ³ - STEV
Talc	2 mg/m ³ - TWA	2 mg/m ³ - TWA	2 mg/m ³ - TWA	2 mg/m ³ - TWA	3 mg/m ³ - TWAEV

Propylene glycol monomethyl ether	50 ppm - TWA 100 ppm - STEL	100 ppm - TWA 369 mg/m ³ - TWA 150 ppm - STEL 553 mg/m ³ - STEL	50 ppm - TWA 75 ppm - STEL	50 ppm - TWA 100 ppm - STEL	100 ppm - TWAEV 369 mg/m ³ - TWAEV 150 ppm - STEV 553 mg/m ³ - STEV
Ethyl benzene	20 ppm - TWA	100 ppm - TWA 434 mg/m ³ - TWA 125 ppm - STEL 543 mg/m ³ - STEL	20 ppm - TWA	20 ppm - TWA	100 ppm - TWAEV 434 mg/m ³ - TWAEV 125 ppm - STEV 543 mg/m ³ - STEV
Triethylenetetramine	N/E	N/E	N/E	0.5 ppm - TWA 3 mg/m ³ - TWA Danger of cutaneous absorption	N/E

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
 Alberta - Alberta Occupational Exposure Limits
 British Columbia - British Columbia Occupational Exposure Limits
 Ontario - Ontario Occupational Exposure Limits
 Quebec - Quebec Occupational Exposure Limits
 N/E - Not established

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment**Eye/Face Protection**

Safety glasses with side-shields.

Skin Protection

Protective gloves and impervious clothing.

Respiratory Protection

Use only with adequate ventilation. In operations where exposure limits are exceeded, use a NIOSH approved respirator that has been selected by a technically qualified person for the specific work conditions. When spraying the product or applying in confined areas, wear a NIOSH approved respirator specified for paint spray or organic vapors.

Hygiene Measures

Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	liquid
Odor	solvent
Odor Threshold	No information available
Density (lbs/gal)	11.75 - 11.85
Specific Gravity	1.40 - 1.42
pH	No information available
Viscosity (cps)	No information available
Solubility	No information available
Water Solubility	No information available
Evaporation Rate	No information available
Vapor Pressure	No information available
Vapor Density	No information available
Wt. % Solids	80 - 90
Vol. % Solids	70 - 80
Wt. % Volatiles	10 - 20
Vol. % Volatiles	20 - 30
VOC Regulatory Limit (g/L)	<250
Boiling Point (°F)	248
Boiling Point (°C)	120
Freezing Point (°F)	No information available
Freezing Point (°C)	No information available
Flash Point (°F)	80
Flash Point (°C)	27

Flash Point Method	PMCC
Flammability (solid, gas)	Not applicable
Upper Explosion Limit	Not applicable
Lower Explosion Limit	Not applicable
Autoignition Temperature (°F)	No information available
Autoignition Temperature (°C)	No information available
Decomposition Temperature (°F)	No information available
Decomposition Temperature (°C)	No information available
Partition Coefficient (n-octanol/water)	No information available

10. STABILITY AND REACTIVITY

Reactivity	Not Applicable
Chemical Stability	Stable under normal conditions. Hazardous polymerisation does not occur.
Conditions To Avoid	Keep away from open flames, hot surfaces, static electricity and sources of ignition. Sparks. Elevated temperature.
Incompatible Materials	Incompatible with strong acids and bases and strong oxidizing agents.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors.
Possibility Of Hazardous Reactions	None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Product Information

Information on likely routes of exposure

Principal Routes of Exposure Eye contact, skin contact and inhalation.

Acute Toxicity

Product Information

Repeated or prolonged exposure to organic solvents may lead to permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling vapors may be harmful or fatal.

Information on toxicological effects

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact	Contact with eyes may cause irritation.
Skin contact	May cause skin irritation and/or dermatitis. Prolonged skin contact may defat the skin and produce dermatitis.
Inhalation	Harmful by inhalation. High vapor / aerosol concentrations are irritating to the eyes, nose, throat and lungs and may cause headaches, dizziness, drowsiness, unconsciousness, and other central nervous system effects.
Ingestion	Harmful if swallowed. Ingestion may cause irritation to mucous membranes. Small amounts of this product

Sensitization:**Neurological Effects
Mutagenic Effects
Reproductive Effects****Developmental Effects
Target Organ Effects
STOT - single exposure****STOT - repeated exposure****Other adverse effects
Aspiration Hazard**

aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

May cause sensitization by inhalation.

May cause sensitization by skin contact.

No information available.

No information available.

Possible risk of impaired fertility. Possible risk of harm to the unborn child.

No information available.

No information available.

May cause disorder and damage to the. Respiratory system.

Causes damage to organs through prolonged or repeated exposure if inhaled. Contains: Crystalline Silica which has been determined to be carcinogenic to humans by IARC (1) when in respirable form. Risk of cancer depends on duration and level of inhalation exposure to spray mist or dust from sanding the dried paint. Central nervous system (CNS). Causes damage to organs through prolonged or repeated exposure.

No information available.

May be harmful if swallowed and enters airways. Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	2098 mg/kg
ATEmix (dermal)	4039 mg/kg
ATEmix (inhalation-dust/mist)	7.6 mg/L
ATEmix (inhalation-vapor)	1281.9 mg/L

ComponentSilica, crystalline

LD50 Oral: 500 mg/kg (Rat)

Benzyl alcohol

LD50 Oral: 1230-1660 mg/kg (Rat)

LD50 Dermal: 2,000 mg/kg (Rabbit)

LC50 Inhalation (Vapor): > 5,000 mg/m³ (Rat)

Titanium dioxide

LD50 Oral: > 10000 mg/kg (Rat)

Xylene

LD50 Oral: 4300 mg/kg (Rat)

LD50 Dermal: > 1700 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 5000 ppm (Rat, 4 hr.)

Propylene glycol monomethyl ether

LD50 Oral: 6,600 mg/kg (Rat)

LD50 Dermal: 13,000 mg/kg (Rabbit)

LC50 Inhalation (Vapor): 10,000 ppm (Rat)

Ethyl benzene

LD50 Oral: mg/kg (Rat)

LD50 Dermal: > mg/kg (Rabbit)

LC50 Inhalation (Vapor): mg/m³ (Rat, 2 hr.)

Triethylenetetramine

LD50 Oral: 2500 mg/kg (Rat)

LD50 Dermal: 805 mg/kg (Rabbit)

Solvent naphtha, petroleum, light aromatic

LD50 Oral: 8400 mg/kg (Rat)

Phenol, 2,4,6-tris[(dimethylamino)methyl]-

LD50 Oral: 1200 mg/kg (Rat)

LD50 Dermal: 1280 mg/kg (Rat)

Chronic Toxicity**Carcinogenicity***The information below indicates whether each agency has listed any ingredient as a carcinogen:.*

Chemical Name	IARC	NTP
Silica, crystalline	1 - Human Carcinogen	Known Human Carcinogen
Titanium dioxide	2B - Possible Human Carcinogen	
Ethyl benzene	2B - Possible Human Carcinogen	

- Crystalline Silica has been determined to be carcinogenic to humans by IARC (1) when in respirable form. Risk of cancer depends on duration and level of inhalation exposure to spray mist or dust from sanding the dried paint.
- Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

Legend

IARC - International Agency for Research on Cancer

NTP - National Toxicity Program

OSHA - Occupational Safety & Health Administration

12. ECOLOGICAL INFORMATION**Ecotoxicity Effects**

The environmental impact of this product has not been fully investigated.

Product Information**Acute Toxicity to Fish**

No information available

Acute Toxicity to Aquatic Invertebrates

No information available

Acute Toxicity to Aquatic Plants

No information available

Persistence / Degradability

No information available.

Bioaccumulation / Accumulation

No information available.

Mobility in Environmental Media

No information available.

Ozone

No information available

Component**Acute Toxicity to Fish**Titanium dioxide

LC50: > 1000 mg/L (Fathead Minnow - 96 hr.)

Xylene

LC50: 13.5 mg/L (Rainbow Trout - 96 hr.)

Ethyl benzene

LC50: 12.1 mg/L (Fathead Minnow - 96 hr.)

Acute Toxicity to Aquatic InvertebratesEthyl benzene

EC50: 1.8 mg/L (Daphnia magna - 48 hr.)

Acute Toxicity to Aquatic PlantsEthyl benzene

EC50: 4.6 mg/L (Green algae (Scenedesmus subspicatus), 72 hrs.)

13. DISPOSAL CONSIDERATIONS**Waste Disposal Method**

Dispose of in accordance with federal, state, provincial, and local regulations. Local requirements may vary, consult your sanitation department or state-designated environmental protection agency for more disposal options.

Empty Container Warning

Emptied containers may retain product residue. Follow label warnings even after container is emptied. Residual vapors may explode on ignition.

14. TRANSPORT INFORMATION**TDG****Proper Shipping Name**

Paint

Hazard Class

3

UN-No

UN1263

Packing Group

III

Description

UN1263, Paint, , 3, III

ICAO / IATA

Contact the preparer for further information.

IMDG / IMO

Contact the preparer for further information.

15. REGULATORY INFORMATION**International Inventories**

TSCA: United States Yes - All components are listed or exempt.
DSL: Canada Yes - All components are listed or exempt.

National Pollutant Release Inventory (NPRI)

NPRI Parts 1- 4

This product contains the following Parts 1-4 NPRI chemicals:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight % (max)</u>	<u>NPRI Parts 1- 4</u>
Zinc phosphate	7779-90-0	10 - 30%	Listed
Benzyl alcohol	100-51-6	5 - 10%	Listed
Xylene	1330-20-7	5 - 10%	Listed
Propylene glycol monomethyl ether	107-98-2	1 - 5%	Listed
Ethyl benzene	100-41-4	1 - 5%	Listed

NPRI Part 5

This product contains the following NPRI Part 5 Chemicals:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight % (max)</u>	<u>NPRI Part 5</u>
Xylene	1330-20-7	5 - 10%	Listed
Solvent naphtha, petroleum, light aromatic	64742-95-6	1 - 5%	Listed

WHMIS Regulatory Status

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

16. OTHER INFORMATION

HMIS - Health: 1* Flammability: 3 Reactivity: 0 PPE: -

HMIS Legend

- 0 - Minimal Hazard
- 1 - Slight Hazard
- 2 - Moderate Hazard
- 3 - Serious Hazard
- 4 - Severe Hazard
- * - Chronic Hazard

X - Consult your supervisor or S.O.P. for "Special" handling instructions.

Note: The PPE rating has intentionally been left blank. Choose appropriate PPE that will protect employees from the hazards the material will present under the actual normal conditions of use.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer, has chosen to provide them. HMIS® ratings are to be used only in conjunction with a fully implemented HMIS® program by workers who have received appropriate HMIS® training. HMIS® is a registered trade and service mark of the NPCA. HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by logging onto Health Canada @ http://www.hc-sc.gc.ca/ewh-semnt/contaminants/lead-plomb/asked_questions-questions_posees-eng.php.

Prepared By

Product Stewardship Department

Benjamin Moore & Co.
101 Paragon Drive
Montvale, NJ 07645
855-724-6802

Revision Date: 14-Oct-2016
Reason For Revision Not available

Disclaimer

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, provincial, and local laws and regulations.

END OF SAFETY DATA SHEET