

EPOXY COAT 7000 GREY RESIN

This product appears in the following stock number(s):

12710

Last revised: 12/09/1999

Printed: 12/4/2001

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Tradename:** EPOXY COAT 7000 GREY RESIN**Product Identifier:** EPOXY RESIN**General use:** This information applies to the resin component of the two-part kit; handle freshly-mixed resin and hardener as recommended for the hardener. After curing, the product is not hazardous.**Chemical family:** Epoxy resin**MANUFACTURER**ITW Devcon
30 Endicott St.
Danvers, MA 01923**EMERGENCY INFORMATION****Emergency telephone number**
(CHEMTREC): (800) 424-9300
Other Calls: (978) 777-1100**2. COMPOSITION/INFORMATION ON INGREDIENTS****HAZARDOUS CONSTITUENTS****Exposure limits**

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Propylene carbonate		108327	1-10	n/e	n/e	n/e
Microcrystalline silica		1317959	< 1	0.1mg/m ³	10/(%Q+2) mg	0.1mg/m ³ (Canada)
Crystalline silica		14808607	30-60	0.05 mg/m ³	10/(%Q+2) mg	0.10 mg/m ³ (Canada)
Bisphenol A diglycidyl ether resin	DGEBPA	25068386	30-60	n/e	n/e	n/e
Butyrolactone		96480	< 10	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance, form, odor: viscous liquid with little odor.

WARNING! Eye and skin irritant. Potential skin sensitizer.

Potential health effects

Primary routes of exposure: Skin contact Skin absorption Eye contact Inhalation Ingestion

Symptoms of acute overexposure:

Skin: Moderate irritant. Contact at elevated temperatures can cause thermal burns. May cause skin sensitization (rashes, hives).

Eyes: Moderate to severe irritant. Contact at elevated temperatures can cause thermal burns.

Inhalation:

The low vapor pressure of the resin makes inhalation unlikely in normal use.

Ingestion:

Acute oral toxicity is low. May cause gastric distress.

Effects of chronic overexposure:

Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure. Studies have shown bisphenol A diglycidyl ether resin to be a sensitizing agent causing allergic contact dermatitis.

Carcinogenicity -- OSHA regulated: No

ACGIH: No

National Toxicology Program: Yes

International Agency for Research on Cancer: Yes

Cancer-suspect constituent(s) : Silica

Medical conditions which may be aggravated by exposure:

Preexisting eye and skin disorders. Development of preexisting skin or lung allergy symptoms may increase.

Other effects:

Over exposure to butyrolactone is expected to cause symptoms of Central Nervous System depression. Also see section 11.

4. FIRST AID MEASURES**First aid for eyes:**

Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.

First aid for skin:

Immediately remove contaminated clothing and excess contaminant. Flush skin with water. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:

Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention if symptoms persist.

First aid for ingestion:

Do NOT induce vomiting. Give two glasses of water to dilute if patient is conscious. Get medical attention.

Note to physician :

In general, emesis induction is unnecessary in high viscosity, low volatility products, e.g., neat epoxy resins.

5. FIRE FIGHTING MEASURES**Extinguishing media:**

Water Carbon dioxide Dry chemical Foam Alcohol foam

Flash Point (°F): >400

Method: PMCC

Explosive limits in air (percent) -- Lower: n/d

Upper: n/d

Special firefighting procedures:

Material will not burn unless preheated. Do not enter confined space without full bunker gear. Firefighters should wear self-contained breathing apparatus and protective clothing. Cool fire exposed containers with water.

Unusual fire and explosion hazards:

Heat may rupture closed containers Heating above 300 deg F in the presence of air may cause slow oxidative decomposition and above 500 deg F may cause polymerization. Vapors are heavier than air and may travel along floor to an ignition source.

Hazardous products of combustion:

When heated to decomposition it emits fumes of Cl⁻ , carbon monoxide, other fumes and vapors varying in composition and toxicity.

6. ACCIDENTAL RELEASE MEASURES**Spill control:**

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Flush area with water to remove trace residue.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters.

7. HANDLING AND STORAGE**Handling precautions:**

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities.

Laundry contaminated clothing and protective gear before reuse. Discard contaminated leather articles.

Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against silica dust during sanding/grinding of cured product.

Storage:

Store in a cool, dry area away from high temperatures and flames.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering controls****Ventilation :**

Local exhaust ventilation is preferred although good general mechanical ventilation is usually adequate for most industrial applications. Local exhaust is recommended for confined areas.

Other engineering controls :

Have emergency shower and eye wash available.

Personal protective equipment**Eye and face protection:**

Safety glasses with side shields or splash goggles.

Skin protection:

Chemical-resistant gloves and other gear as required to prevent skin contact.

Respiratory protection:

None required at normal handling temperatures and conditions. Use NIOSH approved organic vapor cartridges for uncured resin and dust/particle respirators during grinding/sanding operations of cured resin as exposure levels dictate.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.1-1.3	Boiling point (°F):	>400
Melting point (°F):	n/d	Vapor density (air = 1):	>1
Vapor pressure (mmHg):	n/d at 171 °F	Evaporation rate (butyl acetate = 1):	<<1
VOC (grams/liter):	0	Solubility in water:	Negligible
Percent volatile by volume:	0	pH (5% solution or slurry in water):	neutral
Percent solids by weight:	100		

10. STABILITY AND REACTIVITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid :

Open flame and extreme heat, oxidizing conditions.

Incompatible materials:

Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines).

Hazardous products of decomposition:

Oxides of carbon; aldehydes, acids and other organic substances may be formed during combustion or elevated temperature (>500 deg F) degradation.

Conditions under which hazardous polymerization may occur:

Heat is generated when resin is mixed with curing agents; Run-a-way cure reactions may char and decompose the resin, generating unidentified fumes and vapors which may be toxic.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): > 1000 mg/kg

Changes in neurotransmitter levels has been reported in experimental animals dosed orally or by injection with butyrolactone.

Acute dermal effects: LD50 (rabbit): Not available.

Acute inhalation effects: LC50 (rat): Not available.

Exposure: 8 hours.

Eye irritation:

Not available.

Subchronic effects:

No data available.

Carcinogenicity, teratogenicity, and mutagenicity:

Both the resin and the diglycidyl ether of bisphenol A (a component of this product) have proved to be inactive when tested by In Vivo mutagenicity assays. Both have shown activity by In Vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells.

Other chronic effects:

2-year bioassays in mice exposed by the dermal route to EPON 828, DGEBA, or other commercial resins yielded limited evidence of weak carcinogenicity. The authors concluded that the renal tumor evidence with EPON 828 "was of no biological significance" and that the resin "is not a systemic carcinogen when applied to the dorsal skin of CF1 mice."

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Propylene carbonate	29100 uL/kg	>20 mL/kg	n/d
Microcrystalline silica	n/d	n/d	n/d
Crystalline silica	n/d	n/d	n/d
Bisphenol A diglycidyl ether resin	11.4 g/kg	>20 ml/kg	no deaths
Butyrolactone	> 500 mg/kg	n/d	> 2.5 g/m3

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION**Ecotoxicity:**

No data available.

Mobility and persistence:

No data available.

Environmental fate:

No data available.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

If this resin becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated
Technical name : N/A
Hazard class : N/A
UN number: N/A
Packing group: N/A
Emergency Response Guide no.: N/A
IMDG page number: N/A
Other: N/A

15. REGULATORY INFORMATION**U.S. Federal Regulations****TSCA**

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:

None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Propylene carbonate	No	No	0.0	Not required
Microcrystalline silica	No	No	0.0	Not required
Crystalline silica	No	No	0.0	Not required
Bisphenol A diglycidyl ether resin	No	No	0.0	Not required
Butyrolactone	No	No	0.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -

Canadian regulations

WHMIS hazard class(es) : D2B; D2A

All components of this product are on the Domestic Substances List or the Non-Domestic Substances List

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health 2*	Flammability 1	Reactivity 1
--	----------------------------	---------------------------------	-------------------------------

Revisions for this issue:

MSDS section	Revisions
2	Formula change
15	Components changed

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

EPOXY COAT 7000 (NO VOC) HARDENER

This product appears in the following stock number(s):

12710

Last revised: 12/28/1999

Printed: 12/4/2001

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: EPOXY COAT 7000 (NO VOC) HARDENER
Product Identifier: EPOXY HARDENER
General use: This product is a 100% solids, two-component, self-levelling epoxy floor coating. The following information applies to the hardener component only.
Chemical family: Modified cycloaliphatic polyamine.

MANUFACTURER

ITW Devcon
 30 Endicott St.
 Danvers, MA 01923

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS**HAZARDOUS CONSTITUENTS****Exposure limits**

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Benzyl alcohol	BZOH	100516	30-60	n/e	n/e	10 ppm (AIHA)
4, 4'-Methylenebiscyclohexanamine		1761713	1-5	n/e	n/e	n/e
2,4,6-Tris(Dimethylaminomethyl)phenol	DMP	90722	5-10	n/e	n/e	n/e
Cycloaliphatic amine		*	30-60	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit. "n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION**Emergency Overview**

Appearance, form, odor: Light straw liquid with amine odor.

WARNING! Eye, skin and respiratory irritant. Harmful if absorbed through skin. Potential skin sensitizer.
--

Potential health effects

Primary routes of exposure: Skin contact Skin absorption Eye contact Inhalation Ingestion

Symptoms of acute overexposure:

Skin: May cause skin irritation (defatting, itching, rash, redness, discomfort). Product is absorbed through skin and may cause nausea, headache, and general discomfort.

Eyes: May cause severe eye irritation. Vapors can cause lacrimation, conjunctivitis and corneal edema when absorbed in the tissue of the eye. May cause burns, necrosis and permanent injury (blindness).

Inhalation:

Inhalation of vapors may cause irritation of the respiratory tract. Coughing and chest pain may result. May severely damage contacted tissue and cause scarring.

Ingestion:

Liquid can cause damage to mucous membrane if swallowed. May cause burns of mouth and throat. May cause gastrointestinal irritation or ulceration.

Effects of chronic overexposure:

Repeated or prolonged exposure may cause allergic reaction / sensitization. Adverse eye effects include conjunctivitis and corneal damage. Adverse skin effects include defatting, rash, irritation and corrosion. May cause nervous system disorders (narcosis, behavioral changes or decrease in motor function). May cause muscular dysfunction.

Carcinogenicity -- OSHA regulated: No

ACGIH: No

National Toxicology Program: No

International Agency for Research on Cancer:No

Cancer-suspect constituent(s) : None

Medical conditions which may be aggravated by exposure:

Chronic respiratory diseases (e.g. Bronchitis, Emphysema), eye disease, skin disorders and allergies. Neurological disorders.

Other effects:

Exposure to vapor may also cause minor transient edema of the corneal epithelium (blue-haze). This effect produces a blurring of vision against a general bluish haze and the appearance of halos around bright objects. The effect is transient and has no known residual effect.

4. FIRST AID MEASURES**First aid for eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get prompt medical attention.

First aid for skin:

Immediately remove contaminated clothing. Flush with plenty of soap and water for at least 15 minutes.

First aid for inhalation:

Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention if effects occur.

First aid for ingestion:

Do not induce vomiting. Give large amounts of water or milk if available. Seek medical attention immediately.

5. FIRE FIGHTING MEASURES**General fire and explosion characteristics:**

Class IIIB, combustible liquid.

Extinguishing media:

Water

Carbon dioxide

Dry chemical

Foam

Alcohol foam

Flash Point (°F): >200**Method:** PMCC**Explosive limits in air (percent) -- Lower:** n/d **Upper:** n/d**Special firefighting procedures:**

Use water to keep fire-exposed containers cool. If a spill is ignited, use water spray to disperse the vapors. Protective clothing and self-contained respirators should be worn by firefighters in area where product is stored.

Unusual fire and explosion hazards:

Personnel in vicinity and downwind should be evacuated.

Hazardous products of combustion:

Toxic fumes will be evolved when this product is involved in a fire. May generate carbon monoxide and nitrogen oxide gases. Ammonia gas.

6. ACCIDENTAL RELEASE MEASURES**Spill control:**

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable material. Prevent spill from entering drainage/sewer systems, waterways, and surface waters.

Cleanup:

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Minor spills may be neutralized with sodium bisulfate to reduce vapors. Flush area with water to remove trace residue.

Special procedures:

Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing.

7. HANDLING AND STORAGE**Handling precautions:**

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles. Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against nuisance dust during sanding/grinding of cured product. CAUTION! N-nitrosamines (many of which are known to be potent carcinogens) may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.

Storage:

Store in a cool, dry area away from high temperatures and flames. Keep away from acids, alkalis and oxidizers. Keep closed when not in use in a well ventilated area. Do not store in iron or other reactive metal containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering controls****Ventilation :**

Good industrial hygiene practice dictates that the work area be provided with adequate local exhaust ventilation and/or other controls to prevent irritation.

Other engineering controls :

Provide eye wash and safety shower stations.

Personal protective equipment**Eye and face protection:**

Safety glasses or goggles.

Skin protection:

Chemical resistant rubber gloves and long sleeve clothing.

Respiratory protection:

None needed in normal use with proper ventilation. In poorly ventilated areas a NIOSH-approved organic vapor respirator may be required. For confined spaces, an approved SCBA may be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.06	Boiling point (°F):	432 F
Melting point (°F):	n/d	Vapor density (air = 1):	n/d
Vapor pressure (mmHg):	n/d at 0 °F	Evaporation rate (butyl acetate = 1):	n/d
VOC (grams/liter):	0	Solubility in water:	Slight
Percent volatile by volume:	0	pH (5% solution or slurry in water):	n/d
Percent solids by weight:	100		

10. STABILITY AND REACTIVITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid :

Avoid mixing with large quantities of resin as heat is evolved. Product slowly corrodes copper, aluminum, zinc, and galvanized surfaces.

Incompatible materials:

Acids. Reducing & oxidizing agents. Reactive metals. Sodium or calcium hypochlorite. Nitrous acid. Nitrites. Nitrous oxide. Amines. Peroxides. Mat'ls reactive with hydroxyl cmpds.

Hazardous products of decomposition:

Carbon monoxide, carbon dioxide, and oxides of nitrogen. Ammonia. Nitric acid. Nitrosamines. Aldehydes. Organic acid vapors. Other irritating and toxic smoke.

Conditions under which hazardous polymerization may occur:

Heat is generated when mixed with epoxy resin. Use caution when mixing large quantities.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): > 1000 mg/kg (estimate)

Acute dermal effects: LD50 (rabbit): > 1000 mg/kg (estimate)

Moderate irritant to skin of rabbit.

Acute inhalation effects: LC50 (rat): not available
Moderate respiratory tract irritant.

Exposure: hours.

Eye irritation:
Severe eye irritant.

Subchronic effects:
Subchronic exposure of components in animals has caused central nervous system abnormalities.

Carcinogenicity, teratogenicity, and mutagenicity:
Test data not known.

Other chronic effects:
Component has caused allergic sensitization in animals.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Benzyl alcohol	1230 mg/kg	2000 mg/kg	> 2000 ppm
4, 4'-Methylenebiscyclohexanamine	> 625 mg/kg	> 2110 mg/kg	>10 mg/l
2,4,6-Tris(Dimethylaminomethyl)phenol	1670 mg/kg	1400 mg/kg	> 0.5 mg/L
Cycloaliphatic amine	n/d	n/d	n/d

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:
Not determined.

Mobility and persistence:
Not determined.

Environmental fate:
Not determined.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

Dispose of in accordance with Federal, State and Local regulations. Incineration is the preferred method of disposal.

14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated
Technical name : N/A
Hazard class : N/A
UN number: N/A
Packing group: N/A
Emergency Response Guide no.: N/A
IMDG page number: N/A
Other: N/A

15. REGULATORY INFORMATION**U.S. Federal Regulations****TSCA**

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:

None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Benzyl alcohol	No	No	0.0	Not required
4, 4'-Methylenebis(cyclohexyl)amine	No	No	0.0	Not required
2,4,6-Tris(Dimethylaminomethyl)phenol	No	No	0.0	Not required
Cycloaliphatic amine	No	No	0.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -

Canadian regulations

WHMIS hazard class(es) : D2B

All components of this product are on the Domestic Substances List.

16. OTHER INFORMATION

**Hazardous Materials
Identification System (HMIS)
ratings:**

Health
3*

Flammability
1

Reactivity
1

Revisions for this issue:

MSDS section	Revisions
3	Health
7	Handling And Storage
10	Reactivity
11	Toxicology

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.