

FLOOR PATCH (FAST CURE) RESIN

This product appears in the following stock number(s):
13110

Last revised: 12/06/01
Printed: 6/25/2004

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: FLOOR PATCH (FAST CURE) 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
Bisphenol A diglycidyl ether resin	DGEBPA	25068386	60-90	n/e	n/e	n/e
Alkyl Glycidyl Ether		68609972	10-30	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 which may result in permanent damage. May cause skin sensitization (itching, redness, rashes, hives, burning, swelling).

Eyes: Moderate irritant (stinging, burning sensation, tearing, redness, swelling). Contact at elevated temperatures can cause thermal burns which may result in permanent damage or blindness.

Inhalation:

The low vapor pressure of the resin makes inhalation unlikely in normal use. In applications where vapors (caused by high temperature) or mists (caused by mixing) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

Ingestion:

Acute oral toxicity is low. May cause gastric distress (nausea, vomiting, diarrhea).

Effects of chronic overexposure:

Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure.

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:

Preexisting eye and skin disorders (e.g. eczema). Development of preexisting skin or lung allergy symptoms may increase.

Other effects:

See section 11.

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

Flush eye with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

First aid for skin:

Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. 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. Rinse mouth out with water, then sip water to remove taste from mouth. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get medical attention.

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

Water

Carbon dioxide

Dry chemical

Foam

Alcohol foam

Flash Point (°F): > 300

Method: estimate

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:

Heating above 300 deg F in the presence of air may cause slow oxidative decomposition and above 500 deg F may cause polymerization. Personnel in vicinity and downwind should be evacuated.

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. Collect run-off water and transfer to drums or tanks for later disposal. Notify local health authorities and other appropriate agencies if such contamination occurs.

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 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 :

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to the lowest feasible levels when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred (see ACGIH - Industrial Ventilation). Local exhaust may be required for confined areas (see OSHA 1910.146).

Other engineering controls :

Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:

Chemical goggles if liquid contact is likely, or Safety glasses with side shields.

Skin protection:

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

Respiratory protection:

None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved organic vapor cartridge respirator for uncured resin, dust/particle respirator during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.1-1.3	Boiling point (°F):	>500
Melting point (°F):	n/d	Vapor density (air = 1):	>1
Vapor pressure (mmHg):	0.03 mm Hg 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

Incompatible materials:

Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (esp. primary and secondary aliphatic amines). Sodium or calcium hypochlorite. Peroxides.

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): > 10 g/kg

Acute dermal effects: LD50 (rabbit): > 4.5 g/kg

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

Exposure: hours.

Eye irritation:

Not available.

Subchronic effects:

Alkyl Glycidyl Ether: a 20 day exposure to rabbit skin to 2 ml of 5% solution/kg/day showed no histological evidence of toxicity.

Carcinogenicity, teratogenicity, and mutagenicity:

1) MUTAGENICITY: Liquid resins based on diglycidyl ether of Bisphenol A (DGEbPA), have proved to be inactive

when tested by in vivo mutagenicity assays. These resins have shown activity in in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown. 2) CARCINOGENICITY: Recent 2-year bioassays in rats and mice exposed by the dermal route to DGEBPA yielded no evidence of carcinogenicity to the skin or any other organs. This study clarifies prior equivocal results from a 2-year mouse skin painting study, which were suggestive, but not conclusive, for weak carcinogenic activity. 3) The International Agency for Research on Cancer (IARC) concluded that DGEBPA is not classifiable as a carcinogen (IARC group 3), that is human and animal evidence of carcinogenicity is inadequate.

Other chronic effects:

DGEBPA: 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 cause allergic contact dermatitis. Alkyl Glycidyl Ether: Sensitization has occurred in laboratory animals after repeated exposures.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Bisphenol A diglycidyl ether resin	11.4 g/kg	>20 ml/kg	no deaths
Alkyl Glycidyl Ether	>19.2 g/kg	> 4.5 g/kg	n/d

'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. 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
Bisphenol A diglycidyl ether resin	No	No	0.0	Not required
Alkyl Glycidyl Ether	No	No	0.0	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 or the Non-Domestic Substances List

16. OTHER INFORMATION

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

Health**2*****Flammability****1****Reactivity****1**

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.

FLOOR PATCH PRIMER RESIN

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

13110

Last revised: 12/07/01

Printed: 6/25/2004

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Tradename:** FLOOR PATCH PRIMER 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
Bisphenol A diglycidyl ether resin	DGEBPA	25068386	50-75	n/e	n/e	n/e
Phenol, polymer with formaldehyde, glycidyl ether		28064144	10-20	n/e	n/e	n/e
Alkyl Glycidyl Ether		68609972	15-30	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 which may result in permanent damage. May cause skin sensitization (itching, redness, rashes, hives, burning, swelling).**Eyes:** Moderate irritant (stinging, burning sensation, tearing, redness, swelling). Contact at elevated temperatures can

cause thermal burns which may result in permanent damage or blindness.

Inhalation:

The low vapor pressure of the resin makes inhalation unlikely in normal use. In applications where vapors (caused by high temperature) or mists (caused by mixing) are created, breathing may cause a mild burning sensation in the nose, throat and lungs.

Ingestion:

Acute oral toxicity is low. May cause gastric distress (nausea, vomiting, diarrhea).

Effects of chronic overexposure:

Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure.

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:

Preexisting eye and skin disorders (e.g. eczema). Development of preexisting skin or lung allergy symptoms may increase.

Other effects:

See section 11.

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

Flush eye with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

First aid for skin:

Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. 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. Rinse mouth out with water, then sip water to remove taste from mouth. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get medical attention.

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

Water

Carbon dioxide

Dry chemical

Foam

Alcohol foam

Flash Point (°F): > 300

Method: estimate

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:

Heating above 300 deg F in the presence of air may cause slow oxidative decomposition and above 500 deg F may cause polymerization. Personnel in vicinity and downwind should be evacuated.

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. Collect run-off water and transfer to drums or tanks for later disposal. Notify local health authorities and other appropriate agencies if such contamination occurs.

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 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 :**

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to the lowest feasible levels when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred (see ACGIH - Industrial Ventilation). Local exhaust may be required for confined areas (see OSHA 1910.146).

Other engineering controls :

Have emergency shower and eye wash available.

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

Chemical goggles if liquid contact is likely, or Safety glasses with side shields.

Skin protection:

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

Respiratory protection:

None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved organic vapor cartridge respirator for uncured resin, dust/particle respirator during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.1-1.3	Boiling point (°F):	>500
Melting point (°F):	n/d	Vapor density (air = 1):	>1
Vapor pressure (mmHg):	0.03 mm Hg 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

Incompatible materials:

Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (esp. primary and secondary aliphatic amines). Sodium or calcium hypochlorite. Peroxides.

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): > 10 g/kg

Acute dermal effects: LD50 (rabbit): > 4.5 g/kg

Acute inhalation effects: LC50 (rat): No data available.

Exposure: hours.

Eye irritation:

Not available.

Subchronic effects:

Alkyl Glycidyl Ether: a 20 day exposure to rabbit skin to 2 ml of 5% solution/kg/day showed no histological evidence of toxicity.

Carcinogenicity, teratogenicity, and mutagenicity:

1) **MUTAGENICITY:** Liquid resins based on diglycidyl ether of Bisphenol A (DGEBPA), have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown. 2) **CARCINOGENICITY:** Recent 2-year bioassays in rats and mice exposed by the dermal route to DGEBPA yielded no evidence of carcinogenicity to the skin or any other organs. This study clarifies prior equivocal results from a 2-year mouse skin painting study, which were suggestive, but not conclusive, for weak carcinogenic activity. 3) The International Agency for Research on Cancer (IARC) concluded that DGEBPA is not classifiable as a carcinogen (IARC group 3), that is human and animal evidence of carcinogenicity is inadequate.

Other chronic effects:

DGEBPA: 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 cause allergic contact dermatitis. Alkyl Glycidyl Ether: Sensitization has occurred in laboratory animals after repeated exposures.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Bisphenol A diglycidyl ether resin	11.4 g/kg	>20 ml/kg	no deaths
Phenol, polymer with formaldehyde, glycidyl ether	> 5000 mg/kg	> 6000 mg/kg	> 1.7 mg/L
Alkyl Glycidyl Ether	>19.2 g/kg	> 4.5 g/kg	n/d

'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. 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
Bisphenol A diglycidyl ether resin	No	No	0.0	Not required
Phenol, polymer with formaldehyde, glycidyl ether	No	No	0.0	Not required
Alkyl Glycidyl Ether	No	No	0.0	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**2*****Flammability****1****Reactivity****1**

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.

10 LB FLOOR PATCH (FC) AGGREGATE

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

13110

Last revised: 06/11/04

Printed: 6/25/2004

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Tradename:** 10 LB FLOOR PATCH (FC) AGGREGATE**General use:** This information applies to the sand component of the concrete patching compound kit. After mixing, handle uncured material as for the hardener; after curing, product is not hazardous.**Chemical family:** Silica**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
Crystalline silica		14808607	60-100	0.05 mg/m ³	10/(%Q+2) mg/m ³	0.10 mg/m ³ (Canada)

"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: Tan granules with no odor.

CAUTION! Mechanical irritant. Dusts may cause respiratory irritation.**Potential health effects****Primary routes of exposure:** Skin contact Skin absorption Eye contact Inhalation Ingestion**Symptoms of acute overexposure:****Skin:** Abrasive, but not otherwise hazardous on skin contact.**Eyes:** Mechanical irritant which may cause abrasion of the cornea.**Inhalation:**

If dust is produced, high concentrations are respiratory irritants. The product has no respirable dust as shipped.

Ingestion:

No data.

Effects of chronic overexposure:

Silicosis, lung cancer, scleroderma, tuberculosis and nephrotoxicity.

Carcinogenicity -- OSHA regulated: Yes

ACGIH: No

National Toxicology Program: Yes

International Agency for Research on Cancer: Yes

Cancer-suspect constituent(s) : Respirable Silica

Medical conditions which may be aggravated by exposure:

The condition of individuals with lung disease may be aggravated by exposure.

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

Avoid rubbing particles into the eyes. Flush eye with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Contact a physician if irritation persists.

First aid for skin:

Flush skin with water for at least 15 minutes. 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:

Consult a physician.

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

Crystalline silica (quartz) is non-flammable and non-explosive).

Extinguishing media:

Water

Carbon dioxide

Dry chemical

Foam

Alcohol foam

Flash Point (°F): None

Method: not applicable

Explosive limits in air (percent) -- Lower: none **Upper:** none

Special firefighting procedures:

Does not support combustion with oxygen. Use extinguishing media appropriate to the surrounding fire.

Unusual fire and explosion hazards:

None

Hazardous products of combustion:

None

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

Avoid inhalation of dusts, if any are raised use an appropriate respirator.

Containment:

Not applicable

Cleanup:

Shovel up for reuse or disposal, do not dry sweep.

Special procedures:

None.

7. HANDLING AND STORAGE

Handling precautions:

Avoid creating and inhaling dusts of this product. 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 clean protective gear before reuse.

Storage:

Store in closed containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation :

Mechanical ventilation as required to keep dust concentration below the TLV.

Other engineering controls :

Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:

Safety glasses with side shields or dust-tight goggles.

Skin protection:

Long-sleeved clothing.

Respiratory protection:

Should dust be raised in handling (unlikely), wear NIOSH-approved dust respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	2.65	Boiling point (°F):	4046
Melting point (°F):	2930	Vapor density (air = 1):	No vapor
Vapor pressure (mmHg):	None at 78 °F	Evaporation rate (butyl acetate = 1):	None
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 :

None

Incompatible materials:

Extremely powerful oxidizers(e.g. fluorine, oxygen difluoride, manganese trioxide, chlorine trifluoride). Silica will dissolve in hydrofluoric acid & produce silicon tetrafluoride

Hazardous products of decomposition:

None

Conditions under which hazardous polymerization may occur:

None

11. TOXICOLOGICAL INFORMATION**Acute oral effects:** LD50 (rat): No data available.**Acute dermal effects:** LD50 (rabbit): No data available.**Acute inhalation effects:** LC50 (rat): No data available.

Exposure: hours.

Eye irritation:

No data available.

Subchronic effects:

No data available.

Carcinogenicity, teratogenicity, and mutagenicity:

No data available.

Other chronic effects:

Respirable crystalline quartz may cause chronic lung injury (silicosis). Acute or rapid silicosis may occur in a short period of time in heavy exposure in certain occupations such as sandblasters. Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death. Pulmonary function may be reduced by inhalation of respirable crystalline silica. It may produce lung scarring which may lead to a progressive massive fibrosis, increasing susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Crystalline silica	n/d	n/d	n/d

'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:

The aggregate may be discarded in landfills as non-hazardous waste.

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
Crystalline silica	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: - Delayed health hazard -

Canadian regulations**WHMIS hazard class(es) :** D2B; D2A

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

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health	Flammability	Reactivity
	1*	0	0

Revisions for this issue:

MSDS section	Revisions
3	Chronic health effects

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.

10 LB FLOOR PATCH (FC) HARDENER

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

13110

Last revised: 08/26/03

Printed: 6/25/2004

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Tradename:** 10 LB FLOOR PATCH (FC) HARDENER**General use:** The following health hazard data pertain to the hardener only. When fully cured, the mixed product is non-hazardous.**Chemical family:** Epoxy Hardener**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	>5	n/e	n/e	10 ppm (AIHA)
Benzyl dimethylamine		103833	<5	n/e	n/e	n/e
Aminoethylpiperazine	AEP	140318	<40	n/e	n/e	n/e
Nonylphenol		25154523	>20	n/e	n/e	n/e
Bisphenol A		80057	>30	n/e	n/e	5 mg/m ³ (DFG-MAK)

"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: straw yellow Liquid with ammoniacal odor.

DANGER! Corrosive. Eye, skin and respiratory irritant. Toxic by skin absorption. May cause skin or respiratory sensitization.
--

Potential health effects

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

Symptoms of acute overexposure:

Skin: Causes severe irritation, burns, necrosis, and permanent injury. Toxic by skin absorption. Possible sensitization.

Eyes: Corrosive to eyes. Severe irritant. May cause lacrimation, conjunctivitis, corneal edema, irritation, burning, necrosis and permanent injury (blindness).

Inhalation:

May cause irritation in respiratory tract, coughing, and chest pains. May cause respiratory sensitization

Ingestion:

May cause death if not treated properly. May cause malaise, headache, and discomfort unless treated promptly.

Effects of chronic overexposure:

Defatting, rash, irritation, corrosion of skin. Conjunctivitis or corneal damage of the eye. Coughing, tightness of chest, or shortness of breath. Nonyphenol has caused allergic sensitization in humans. This product may cause respiratory sensitization and lung toxicity.

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:

Eye diseases; skin disorders and allergies; chronic respiratory diseases; asthma.

Other effects:

Corneal edema may give rise to a perception of 'blue haze' around lights. It is transient and has no known residual effect.

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

While holding eyelids apart immediately flush with large amounts of water for at least 15 minutes. Seek medical attention.

First aid for skin:

Remove contaminated clothing and wash affected area with water for 15 minutes. Get medical attention if irritation persists.

First aid for inhalation:

If affected, move to fresh air and call a physician immediately. Prevent aspiration of vomit.

First aid for ingestion:

Do NOT induce vomiting. Immediately drink two large glasses of water. Call a physician (Physician see precautions)

Note to physician :

This product is highly injurious to all tissues, similar to that of ammonia or ammonia gas. Chemical pneumonitis, pulmonary edema, laryngeal edema, and delayed scarring of the airway or other affected tissues may occur following exposure. Clinical management is based on supportive treatment, which is similar to that of thermal burns.

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

Water

Carbon dioxide

Dry chemical

Foam

Alcohol foam

Flash Point (°F): > 212**Method:** PMCC**Explosive limits in air (percent) -- Lower:** n/d **Upper:** n/d**Special firefighting procedures:**

Wear full protective butyl rubber clothing and self-contained breathing apparatus with full faceshield. Use water spray to cool containers.

Unusual fire and explosion hazards:

May generate toxic or irritating combustion products.

Hazardous products of combustion:

Carbon oxides, nitrogen oxides, ammonia. If oxygen starved-nitriles, cyanic acid, isocyanates, nitroamines, amides.

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

Stop the leak. Ventilate the area. Remove ignition sources.

Containment:

Use dike to prevent spreading, apply clay or other absorbent material.

Cleanup:

Cover small spills with bisulfate to neutralize vapors. Spray with water and place in metal containers for disposal. Clean-up personnel must wear self contained breathing apparatus and butyl clothing.

Special procedures:

Evacuate all personnel upwind from the spill. Carbon monoxide and nitrous oxides may be generated. Product is soluble in water. Notify health officials if drinking water contamination occurs.

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 dusts 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 :**

Provide sufficient ventilation to maintain exposure below level of overexposure, especially if handling heated material.

Other engineering controls :

Have emergency shower and eye wash stations available.

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

Chemical splash goggles in compliance with OSHA regulations and a full faceshield are advised.

Skin protection:

Wear protective rubber gloves (butyl, Neoprene, Nitrile), rubber apron, rubber boots.

Respiratory protection:

Not required under normal conditions of use; however, a NIOSH/MSHA approved respirator with ammonia vapor canister may be used to protect from effects of overexposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.05	Boiling point (°F):	> 392
Melting point (°F):	n/d	Vapor density (air = 1):	>1
Vapor pressure (mmHg):	< 1 (est) at 70 °F	Evaporation rate (butyl acetate = 1):	n/d
VOC (grams/liter):	n/d	Solubility in water:	slight
Percent volatile by volume:	n/d	pH (5% solution or slurry in water):	alkaline
Percent solids by weight:	n/d		

10. STABILITY AND REACTIVITY

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

Conditions to avoid :

High temperatures and/or open flames. Material slowly corrodes copper, aluminum, zinc & galvanized surfaces. N-nitroseamines may form if in contact with nitrous acids, oxides, or nitrates.

Incompatible materials:

Oxidizing materials. Mineral or organic acids. Reactive metals. Peroxides. Materials reactive with hydroxyl compounds.

Hazardous products of decomposition:

Carbon oxides, nitrogen oxides, ammonia. If oxygen starved-nitriles, cyanic acid, isocyanates, nitroseamines, amides.

Conditions under which hazardous polymerization may occur:

None known.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): > 500 mg/kg (estimate)

Acute dermal effects: LD50 (rabbit): > 880 mg/kg (estimate)

Severe irritant to the skin of a rabbit.

Acute inhalation effects: LC50 (rat): No data available

Exposure: hours.

Eye irritation:

Severe irritant to the eyes of a rabbit.

Subchronic effects:

No data.

Carcinogenicity, teratogenicity, and mutagenicity:

Nonylphenol has caused allergic sensitization in humans.

Other chronic effects:

No data.

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
Benzyl dimethylamine	265 mg/kg	1660 mg/kg	2062 mg/m ³
Aminoethylpiperazine	2140 mg/kg	880 mg/kg	n/d
Nonylphenol	1620 mg/kg	2140 mg/kg	>1 mg/L
Bisphenol A	3250 mg/kg	3 mL/kg	n/d

'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:

Remove to a waste disposal facility operating in compliance with state and local regulations.

14. TRANSPORT INFORMATION

Proper shipping name: Corrosive liquid, basic, organic, n.o.s.
Technical name : N-Aminoethylpiperazine and Nonylphenol
Hazard class : 8
UN number: 3267
Packing group: III
Emergency Response Guide no.: 153
IMDG page number: N/A
Other: Marine Pollutant (Nonyl Phenol)

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
Benzyl dimethylamine	No	No	0.0	Not required
Aminoethylpiperazine	No	No	0.0	Not required
Nonylphenol	No	No	0.0	Not required
Bisphenol A	No	Yes	0.0	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) : E;D1B;D2A;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 0
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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.

10 # FLOOR PATCH FC PRIMER HARDENER

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

13110

Last revised: 12/19/01

Printed: 6/25/2004

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Tradename:** 10 # FLOOR PATCH FC PRIMER HARDENER**General use:** The information below applies only to the primer hardener component of a kit. After proper mixing and curing, product is not hazardous.**Chemical family:** Modified cycloaliphatic amine**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	>40	n/e	n/e	10 ppm (AIHA)
Isophorone diamine		2855132	<50	n/e	n/e	n/e
Salicylic acid		69727	<15	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: mobile, amber liquid with fishy odor.

DANGER! Corrosive. Causes eye and skin burns. Eye, skin and respiratory irritant. Toxic by skin absorption. May cause skin sensitization.

Potential health effects

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

Symptoms of acute overexposure:

Skin: Corrosive. Can cause severe irritation, chemical burns, blistering, possible tissue destruction. Absorption may cause nausea, headache and general discomfort.

Eyes: Corrosive. Severe irritation or burns. May cause lacrimation, conjunctivitis, corneal damage and may cause

permanent injury (including blindness).

Inhalation:

If the hardener is poorly ventilated, strongly heated or atomized, the vapor or mist can cause severe irritation of the respiratory tract, damage contacted tissue and produce scarring. Coughing and chest pain may result, nausea and vomiting in severe cases.

Ingestion:

Causes severe damage to mucous membranes if swallowed. Burning of mouth, throat, and stomach with abdominal and chest pain. May cause malaise, headache, discomfort, bleeding and vomiting of blood, collapse. Aspiration may result in lung damage.

Effects of chronic overexposure:

Repeated skin contact or inhalation may cause sensitization, with asthmatic or allergic symptoms on subsequent exposure (itching, rash, defatting, swelling, nausea, faintness, headache). Repeated or prolonged exposure may cause adverse respiratory effects (dryness of nasal passages, cough, tightness of chest, shortness of breath), eye effects (conjunctivitis, corneal damage), or skin effects (rash, irritation, corrosion). Effects from inhalation of vapors may be delayed.

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:

Eye disease, skin disorders (e.g. eczema) and allergies, asthma and respiratory diseases (e.g. Bronchitis, Emphysema).

Other effects:

Repeated and/or prolonged exposure to low concentrations of vapor may cause: sore throat, eye irritation, which are transient. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights which is transient and has no known residual effect.

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

Flush eye with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

First aid for skin:

Immediately remove contaminated clothing and excess contaminant. Flush skin with water for at least 15 minutes. 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. Administer 3-4 glasses of milk or water. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips (if sitting) or to the side (if lying down) to prevent aspiration. Get immediate medical attention.

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

Class IIIB. Ignition will give rise to a class B fire.

Extinguishing media:

Water

Carbon dioxide

Dry chemical

Foam

Alcohol foam

Flash Point (°F): > 199.99**Method:** CC**Explosive limits in air (percent) -- Lower:** n/d **Upper:** n/d**Special firefighting procedures:**

Cool fire-exposed containers with water. Firefighters should wear self-contained breathing apparatus and full protective gear. Retain expended liquids for later disposal.

Unusual fire and explosion hazards:

Sudden reaction and fire may result if product is mixed with an oxidizing agent. Personnel in vicinity and downwind should be evacuated. Contact of liquid with skin must be prevented.

Hazardous products of combustion:

Oxides of carbon, oxides of nitrogen, ammonia and unidentified organic combustion products.

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

Avoid personal contact. Evacuate area. 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. Clean-up waste water should be placed in appropriate containers for proper disposal.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Collect run-off water and transfer to drums or tanks for later disposal. Notify local health authorities and other appropriate agencies if such contamination occurs.

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.

Storage:

Keep away from acids, alkalis, oxidizers. Store in a cool, dry area away from high temperatures and flames. Keep cover closed and store in ventilated area. Do not store in reactive metal containers (i.e. iron).

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

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits (or to the lowest feasible levels when limits have not been established). Although good general mechanical ventilation is usually adequate for most industrial applications, local exhaust ventilation is preferred (see ACGIH - Industrial Ventilation). Local exhaust may be required for confined areas (see OSHA 1910.146).

Other engineering controls :

Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:

Full face shield with goggles underneath.

Skin protection:

Chemical-resistant rubber (e.g. neoprene, butyl rubber, nitrile) gloves and other protective gear as needed to prevent skin contact.

Respiratory protection:

None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved organic vapor cartridge respirator for uncured resin, dust/particle respirator during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.00	Boiling point (°F):	401
Melting point (°F):	n/d	Vapor density (air = 1):	n/d
Vapor pressure (mmHg):	< 10.34 mm Hg at 70 °C	Evaporation rate (butyl acetate = 1):	<<1
VOC (grams/liter):	n/d	Solubility in water:	1.6 %
Percent volatile by volume:	n/d	pH (5% solution or slurry in water):	alkaline
Percent solids by weight:	n/d		

10. STABILITY AND REACTIVITY

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

Conditions to avoid :

Slowly corrodes copper, aluminum, zinc and galvanized surfaces.

Incompatible materials:

Mineral & organic acids, alkalis, reducing agents, oxidizing agents, reactive metals. Sodium or calcium hypochlorite. Amines. Peroxides. Materials reactive with hydroxyl compounds.

Hazardous products of decomposition:

Oxides of carbon and nitrogen; amines, ammonia, nitric acid, aldehydes, organic acid vapors and other unknown toxic gases and vapors.

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 (estimate)

Acute dermal effects: LD50 (rabbit): > 2800 mg/kg (estimate)

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

Exposure: hours.

Eye irritation:

Not available.

Subchronic effects:

Not available.

Carcinogenicity, teratogenicity, and mutagenicity:

A component has been shown to cause reproductive / teratogenic effects in laboratory animals.

Other chronic effects:

Not available.

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
Isophorone diamine	1030 mg/kg	n/d	n/d
Salicylic acid	891 mg/kg	>10gm/kg	n/d

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:

No data available.

Mobility and persistence:

No data available.

Environmental fate:

Isophoronediamine is biodegradable.

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. Incineration is the preferred method of disposal.

14. TRANSPORT INFORMATION

Proper shipping name: Isophoronediamine solution *

Technical name : N/A

Hazard class : 8

UN number: 2289

Packing group: III

Emergency Response Guide no.: 153

IMDG page number: N/A

Other:

*Depending upon the size and type of container, this material may be reclassified as "Consumer Commodity, ORM-D" for shipments within the United States, or "Limited Quantity" elsewhere. Refer to the appropriate regulation.

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
Isophorone diamine	No	No	0.0	Not required
Salicylic acid	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; E

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****0**

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.