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 Devcon Home Brand  
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## Material Safety Data Sheet

### 1. PRODUCT IDENTIFICATION

**Product Name:** DEVCON FLOW-MIX 2 TON EPOXY (RESIN)  
**Item No:** 23145  
**Product Type:** Epoxy resin

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component:	Weight%	ACGIH; TLV-TWA	OSHA PEL
EPOXY RESIN (EPICHLOROHYDRIN, BISPENOL A) 25085-99-8	100	Not listed	Not listed

### 3. HAZARDS IDENTIFICATION

**Toxicity:** Causes moderate eye irritation. Causes moderate skin irritation. May cause skin sensitization.  
**Primary Routes of Entry:** Eye and skin contact, ingestion, inhalation  
**Signs and Symptoms of Exposure:** May cause pain, redness or swelling of the eyes and excessive blinking and tear production. Repeated skin contact may cause allergic skin reactions. Contact with product at elevated temperatures can result in thermal burns. Ingestion may cause nausea and vomiting. Excessive accidental exposure may cause headache, dizziness, nausea and mild respiratory irritation.

Component:	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
EPOXY RESIN (EPICHLOROHYDRIN, BISPENOL A) 25085-99-8	100			Bisphenol A; Group 3, Vol. 71, pg 1285; 1999

**Aggravated Medical Condition:** Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product.

### 4. FIRST AID MEASURES

**Ingestion:** If swallowed, do not induce vomiting - seek medical advice. Never give anything by mouth to an unconscious person.  
**Inhalation:** Move to fresh air in case of accidental inhalation of vapors. Obtain medical attention.  
**Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.  
**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

### 5. FIRE FIGHTING MEASURES

**Flash Point °F(C°):** >400°F (>204°C)  
**Recommended Extinguishing Media:** Carbon Dioxide, Dry Chemicals, Foam.  
**Special Fire-Fighting Procedures:** Material will not burn unless preheated. Firefighters should wear self-contained breathing apparatus. Use water spray to cool exposed containers. Oxides of carbon, Aldehydes, Acid vapors  
**Hazardous Products of Combustion:** May decompose above 300 degrees F.; may polymerize above 500 degrees F. in which case closed containers may rupture or explode. Fumes and vapor from thermal and chemical decomposition vary in composition and toxicity. Do not breathe fumes.  
**Unusual Fire/Explosion Hazards:**  
**Lower Explosive Limit:** n/d  
**Upper Explosive Limit:** n/d

### 6. ACCIDENTAL RELEASE MEASURES

**Spill Procedures:** Maintain good ventilation. Take up with an inert absorbent. Store in a closed waste container until disposal. Prevent from entering waterways or sewers.

## 7. HANDLING AND STORAGE

**Storage:** Store in a cool, dry area. Store away from heat.  
**Handling:** Use in a well ventilated area. Avoid contact with skin and eyes. Wash thoroughly after handling. Discard contaminated leather gloves and shoes.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eyes:** Safety glasses  
**Skin:** Neoprene or nitrile gloves recommended.  
**Ventilation:** Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.  
**Respiratory Protection:** An approved organic vapor respirator should be worn when exposures are expected to exceed the applicable limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear viscous liquid  
**Odor:** Slight  
**Boiling Point:** >500°F  
**pH:** Neutral  
**Solubility in Water:** Negligible  
**Specific Gravity:** 1.16  
**VOC(Wt.%):** 0  
**Vapor Pressure:** 0.03 mmHg @ 171°F  
**Vapor Density (Air=1):** >1  
**Evaporation Rate:** <1 (butyl acetate = 1)

## 10. STABILITY AND REACTIVITY

**Chemical Stability:** Stable  
**Hazardous Polymerization:** Will not occur  
**Incompatibilities:** Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines)  
**Conditions to Avoid:** Excessive heat  
**Hazardous Products of Combustion:** Oxides of carbon, Aldehydes, Acid vapors

## 11. TOXICOLOGICAL INFORMATION

Oral LD50 (rat) = >15,0000 mg/kg

## 12. ECOLOGICAL INFORMATION

No data available

## 13. DISPOSAL CONSIDERATIONS

**Recommended Method of Disposal:** Disposal should be made in accordance with federal, state and local regulations  
**US EPA Waste Number:** NH - Not a RCRA Hazardous Waste Material

## 14. TRANSPORTATION INFORMATION

### DOT (49CFR 172)

#### U.S. Department of Transportation - DOT - 49 CFR (Ground)

**DOT Shipping Name:** Not regulated  
**Hazard Class:** None  
**UN/ID Number:** None

### IATA (Air)

**Proper Shipping Name:** Not regulated  
**Class or Division:** None  
**UN/ID Number:** None

### IMDG (Vessel)

**Proper Shipping Name:** Not regulated  
**Hazard Class:** None  
**UN Number:** None

**Marine Pollutant:** None

**Product Name:** DEVCON FLOW-MIX 2 TON EPOXY (RESIN)

**Item No.** 23145

**SARA 313 Chemicals:** The following component(s) is listed as a SARA Section 313 Toxic Chemical.

NONE

**California Proposition 65:** No California Prop 65 chemicals are known to be present.

**TSCA Inventory Status:** All components of this product are listed (or exempt) on the EPA TSCA inventory.

## 16. OTHER INFORMATION

**Estimated NFPA Rating:** HEALTH 2, FLAMMABILITY 1, REACTIVITY 0.

**Estimated HMIS Classification:** HEALTH 2, FLAMMABILITY 1, PHYSICAL HAZARD 0

(NFPA is a registered trademark of the National Fire Protection Association)

(HMIS is a registered trademark of the National Paint and Coatings Association)

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**Telephone No.:** 1-87-Permatex (877) 376-2839

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**Revision Number:** 6

# Material Safety Data Sheet

ITW Consumer - Devcon/Versachem

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## FLOW-MIX 2 TON EPOXY HARDENER

This product appears in the following stock number(s):  
23145

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Tradename:** FLOW-MIX 2 TON EPOXY HARDENER

**General use:** The following health hazard data pertain to the hardener only. When fully cured, the mixed product is non-hazardous

**Chemical family:** Aliphatic amines

#### MANUFACTURER

ITW Consumer - Devcon/Versachem  
2107 West Blue Heron Blvd.  
Riviera Beach, Florida 33404

#### EMERGENCY INFORMATION

Emergency telephone number  
(CHEMTEL): (800) 255-3924  
(CHEMTEL International): (+01) 813-248-0585  
Other Calls: (561) 845-2425

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Abbr.	Weight%	ACGIH; TLV-TWA	OSHA PEL:	Other Limits
NONYLPHENOL 25154-52-3	n/e	75-85		n/e	n/e
AMINOETHYLPIPERAZINE 140-31-8	AEP	15-25		n/e	n/e
TRADE SECRET (Non-hazardous) MIXTURE	n/e	balance		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 identify is a trade secret of our supplier and unknown to us.

### 3. HAZARDOUS IDENTIFICATION

#### Emergency Overview

**Appearance, form, odor:** Amber liquid with ammonia-like, fishy odor

**DANGER!** Corrosive. Causes eye and skin burns. Eye, skin and respiratory irritant. Toxic by skin absorption. Potential skin sensitizer.

#### Potential health effects

**Primary Routes of Exposure:** Eye and skin contact, ingestion, inhalation, skin absorption

#### Symptoms of acute overexposure

**Skin:** Severe irritation or burns, necrosis, blistering and permanent injury. Product can be absorbed through the skin and may cause nausea, headache and general discomfort.

**Eyes:** Severe irritation or burns Overexposure may cause lacrimation, conjunctivitis, corneal damage and may cause permanent injury (i.e. 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.

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**Ingestion:** Causes severe damage to mucous membranes if swallowed. May cause malaise, headache, discomfort, bleeding and vomiting of blood.

**Effects of Chronic Exposure:** Prolonged or repeated skin contact may cause sensitization, with itching, swelling or rashes on later exposure. Repeated or prolonged exposure may cause adverse eye effects (conjunctivitis, corneal damage), or skin effects (rash, irritation, corrosion). Nonylphenol has caused allergic sensitization in humans.

### **Medical Conditions Recognized as Being Aggravated by Exposure:**

Asthma, eczema or skin disorders and allergies, eye disease.

## 4. FIRST AID MEASURES

**Eye Contact:** Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids.

**Skin Contact:** Immediately remove contaminated clothing and excess contaminant. Flush with water for at least 15 minutes. Wash thoroughly with soap and water. Consult a physician if irritation develops.

**Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention

**Ingestion:** If swallowed, DO NOT induce vomiting. Drink water or milk. Seek medical attention immediately Never give fluids or induce vomiting if the victim is unconscious or having convulsions If spontaneous vomiting occurs, hold the victim's head lower than hips to prevent aspiration

**Notes to Physician:** 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 overexposure. Give supportive treatment similar to thermal burns.

## 5. FIRE FIGHTING MEASURES

**General fire and explosion characteristics:** Class IIIB.

**Recommended Extinguishing Media:** Carbon dioxide, Dry chemical, Alcohol foam

**Flash point:** >200°F (93.3°C)

**Method:** CC

**Lower Explosive**

**Upper Explosive**

**Limit:** n/d

**Limit:** n/d

**Special Fire-Fighting Procedures:** Do not enter confined space without full bunker gear. Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact. Use water spray to cool exposed containers.

### **Unusual Fire/Explosion Hazards:**

Sudden reaction and fire may result if product is mixed with an oxidizing agent. Personnel in vicinity and downwind should be evacuated.

### **Hazardous Products of Combustion:**

Acrid fumes, Amines, Ammonia, Oxides of nitrogen, Oxides of carbon

## 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:** Using butyl rubber protective clothing and self-contained breathing apparatus, neutralize and reduce vapors with sodium bisulfate. Absorb spillage on inert material and discard in closed, nonporous containers.

**Special procedures:** Prevent spill from entering drainage/sewer systems, waterways and surface water. 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 breathing vapors or mists. Avoid contact with the skin and the eyes. 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. DO NOT mix with sodium nitrite or other nitrosating agents as cancer-causing nitrosamines could be formed.

**Storage:** Store in a cool, ventilated area away from ignition sources. Do not store in reactive metal containers. Keep away from acids and oxidizers. Keep containers closed when not in use.

## 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 CFR29 1910.146).

**Other engineering controls:** Have emergency shower and eye wash available.

### Personal protective equipment

**Eye and face protection:** Full face shield with chemical goggles if liquid contact is likely, or safety glasses with side shields

**Skin protection:** Chemical-resistant gloves (i.e. butyl) and other gear as required to prevent skin contact. The breakthrough time of the selected gloves must be greater than the intended use period.

**Respiratory protection:** With good ventilation, none required. In poorly ventilated areas use NIOSH-approved organic vapor cartridge respirator for uncured resin, dust/particle respirators during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA CFR29 1910.134).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Specific Gravity:** 0.97

**Boiling Point:** >390°F

**Melting point:** n/d

**Vapor Density (Air=1):** Heavier than air

**Vapor Pressure:** <1 mmHg @ 70°F

**Evaporation Rate:** <1 (butyl acetate = 1)

**VOC:** 0

**Solubility in water:** Soluble

**pH (5% solution or slurry in water):** Alkaline

## 10. STABILITY AND REACTIVITY

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

**Conditions to Avoid:** Keep away from heat, sparks and open flame. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

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**Incompatibilities:** Strong oxidizers, Acids, Reactive metals (e.g. Na, Ca, zinc), Chlorinated organic compounds, Sodium/calcium hypochlorite, Peroxides, Materials reactive with hydroxyl compounds

**Hazardous Products of Combustion:** Acrid fumes, Amines, Ammonia, Oxides of nitrogen, Oxides of carbon

**Conditions under which hazardous polymerization may occur:** Heat is generated when resin is mixed with curing agents; Run-away cure reactions may char and decompose the resin, generating unidentified fumes and vapors which may be toxic.

## 11. TOXICOLOGICAL INFORMATION

**Eye Contact:** No data available.

**Subchronic effects:** No data available.

**Carcinogenicity, teratogenicity and mutagenicity:** No data available.

**Other chronic effects:** Nonylphenol has caused allergic sensitization in humans.

### Toxicological information on hazardous chemical constituents of this product:

Component	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr (rat)
NONYLPHENOL 25154-52-3	580 mg/kg	2031 mg/kg	n/d
AMINOETHYLPIPERAZINE 140-31-8	2140 uL/kg	880 uL/kg	n/d
TRADE SECRET (Non-hazardous) MIXTURE	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.

**Recommended Method of Disposal:** If this hardener becomes a waste, it would not be a hazardous waste by RCRA criteria (40 CFR 261). Dispose of according to applicable federal, state and local regulations. Incineration is the preferred method of disposal.

**US EPA Waste Number:** NH - Not a RCRA Hazardous Waste Material.

## 14. TRANSPORT INFORMATION

**Proper shipping name:** \*Corrosive liquid, basic, organic, n.o.s.

**Technical name:** N-Aminoethylpiperazine and Nonylphenol

**Hazard class:** 8

**UN/ID Number:** UN 3267

**Packing group:** III

**Emergency Response Guide no:** 153

**Other:** Marine Pollutant. (nonylphenol).

## 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:**

Component	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	12B EXPORT NOTIFICATION:
NONYLPHENOL 25154-52-3	No	No	0.0	Not required
AMINOETHYLPIPERAZINE 140-31-8	No	No	0.0	Not required
TRADE SECRET (Non-hazardous) MIXTURE	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

**California regulations:** For purposes of the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop 65), this product does not contain any chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**Canadian Regulations**

**WHMIS Hazard Class:** E CORROSIVE MATERIAL, D2B TOXIC MATERIALS

## 16. OTHER INFORMATION

**Hazardous Material Information System (HMIS) rating:**

Health 3\* Flammability 1 Physical Hazard 0

HMIS is a registered trademark of the National Paint and Coatings Assn.

**Revision Date:** October/09/2008

**Revision Number:** 3

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