

ITW Permatex
Devcon Brand
10 Columbus Blvd.
Hartford, CT 06106 USA
Telephone: 1-87-Permatex
(877) 376-2839
Emergency: 800-255-3924 (ChemTel)
International Emergency: +01-813-248-0585

Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: **DEVCON TITANIUM 5 EPOXY (HARDENER)**
Product Type: **Epoxy hardener**

This product appears in the following stock number(s):
60020

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
MERCAPTAN AMINE BLEND TSRN 679485-6533P	40-70	Not listed	Not listed
LIMESTONE 1317-65-3	20-40	Not listed	15 mg/m ³
CRYSTALLINE SILICA 14808-60-7	0.1-1.0	0.025 mg/m ³	Not listed

3. HAZARDS IDENTIFICATION

Toxicity: May cause skin burns and corneal injury resulting in permanent impairment of vision including blindness. May cause skin sensitization. Causes severe respiratory irritation. May cause gastrointestinal irritation.
Primary Routes of Entry: Eye and skin contact, ingestion, inhalation
Signs and Symptoms of Exposure: Eye irritation may be severe and result in injury. Contact causes severe skin irritation and possible burns. Can burn mouth, throat, and stomach. Repeated skin contact may cause allergic skin reactions.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
CRYSTALLINE SILICA 14808-60-7	0.1-1.0		A2 - Suspected Human Carcinogen	Group 1 Monograph 68, 1997 (inhalation of quartz)

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

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person
Inhalation: Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. Seek immediate medical attention.
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.
Eye Contact: Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°): >200°F (>93°C)
Recommended Extinguishing Media: Dry chemical, Carbon dioxide, Foam
Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact
Hazardous Products of Combustion: Oxides of carbon, Oxides of nitrogen, Oxides of sulfur
Unusual Fire/Explosion Hazards: Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion.

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. Wear appropriate protective and respiratory equipment.

7. HANDLING AND STORAGE

Storage: Store in a cool, dry area.
Handling: Avoid contact with skin and eyes. Do not inhale vapors. Wash hands before eating and smoking. Discard contaminated leather gloves and shoes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses
Skin: Neoprene or nitrile gloves recommended
Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.
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: Viscous liquid
Odor: Mercaptan
Boiling Point: Not determined
pH: 9.5 (5% solution or slurry in water)
Solubility in Water: Negligible
Specific Gravity: 1.13
VOC(Wt.%): 0
Vapor Pressure: <1.0 mmHg
Vapor Density (Air=1): Not Determined
Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions
Hazardous Polymerization: Will not occur
Incompatibilities: Strong oxidizers, Acids, Reactive metals (e.g. Na, Ca, zinc), Sodium/calcium hypochlorite, Peroxides, Materials reactive with hydroxyl compounds
Conditions to Avoid: Excessive heat.
Hazardous Products of Combustion: Oxides of carbon, Oxides of nitrogen, Oxides of sulfur

11. TOXICOLOGICAL INFORMATION

See Section 3

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

15. REGULATORY INFORMATION

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

SARA 313 Information None

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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

16. OTHER INFORMATION

Estimated NFPA Rating: HEALTH 3, FLAMMABILITY 1, REACTIVITY 0

Estimated HMIS Classification: HEALTH 3, 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)

Prepared By: Denise Boyd, Manager-Environmental, Health & Safety

Company: ITW Permatex 10 Columbus Blvd. Hartford, CT USA 06106

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

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Material Safety Data Sheet

1. PRODUCT IDENTIFICATION

Product Name: DEVCON TITANIUM 5 EPOXY (RESIN)
Product Type: Epoxy resin

This product appears in the following stock number(s):
60020

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight%	ACGIH; TLV-TWA	OSHA PEL
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	30-60	Not listed	Not listed
IRON 7439-89-6	10-30	Not listed	Not listed
LIMESTONE 1317-65-3	10-30	Not listed	15 mg/m ³
SILICON 7440-21-3	<5	Not listed	15 mg/m ³
NEOPENTYL GLYCOL DIGLYCIDYL ETHER 17557-23-2	<5	Not listed	Not listed
CRYSTALLINE SILICA 14808-60-7	0.1-1.0	0.025 mg/m ³	Not listed

3. HAZARDS IDENTIFICATION

Toxicity: This material is irritating to skin, eyes and respiratory tract. May cause skin sensitization. High concentrations may cause central nervous system (CNS) depression.

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. Ingesting may cause abdominal pain and vomiting. Excessive overexposure may cause giddiness, dizziness, headache, nausea and in extreme cases, unconsciousness and respiratory depression.

Component	Weight%	NTP	ACGIH Carcinogens	IARC Carcinogen
CRYSTALLINE SILICA 14808-60-7	0.1-1.0		A2 - Suspected Human Carcinogen	Group 1 Monograph 68, 1997 (inhalation of quartz)

Aggravated Medical Condition: Preexisting pulmonary and dermatological disorders. Persons with respiratory problems such as emphysema and asthma should avoid inhalation.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person

Inhalation: Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. If symptoms persist, call a physician.

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.

Eye Contact: Flush eyes with clean water for at least 20 minutes while gently holding eyelids open, lifting upper and lower lids. If eye irritation persists, get medical attention.

5. FIRE FIGHTING MEASURES

Flash Point °F(C°): >200°F (>93°C)

Recommended Extinguishing Media: Dry chemical, Carbon dioxide, Foam

Special Fire-Fighting Procedures: Firefighters should wear self-contained breathing apparatus and protective clothing to prevent all skin and eye contact

5. FIRE FIGHTING MEASURES

Hazardous Products of Combustion: Oxides of carbon, Chlorine

Unusual Fire/Explosion Hazards: Heating above 149°C (300°F) in the presence of air may cause slow oxidation decomposition and above 260°C (500°F) may cause polymerization.

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. Wear appropriate protective and respiratory equipment.

7. HANDLING AND STORAGE

Storage: Store in a cool, dry area.

Handling: Avoid contact with skin and eyes. Use only in a well ventilated area. Wash hands before eating and smoking. Discard contaminated leather gloves and shoes.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses

Skin: Neoprene or nitrile gloves recommended

Ventilation: General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits (or to the lowest feasible levels when limits have not been established) during the use of this product.

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: Viscous liquid

Odor: Mild

Boiling Point: Not determined

pH: Neutral

Solubility in Water: Not Determined

Specific Gravity: 1.52

VOC(Wt.%): 0

Vapor Pressure: Not Determined

Vapor Density (Air=1): >1

Evaporation Rate: Not Determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at normal conditions

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, Chlorine

11. TOXICOLOGICAL INFORMATION

See Section 3

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

14. TRANSPORTATION INFORMATION

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

15. REGULATORY INFORMATION

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

SARA 313 Information None

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

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
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