

Material Safety Data Sheet

ITW Consumer - Devcon/Versachem

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H2 HOLD UNDERWATER EPOXY RESIN

This product appears in the following stock number(s):
22445

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: H2 HOLD UNDERWATER 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 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
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	DGEBPA	40-70		n/e	n/e
DIONYLPHENOL 84962-08-3	DNP	10-20		n/e	n/e
BUTYLATED BISPHENOL A EPOXY RESIN 71033-08-4	n/e	5-15		n/e	n/e
CRYSTALLINE SILICA 14808-60-7	n/e	<1		10(%Q+2) mppcf (respirable)	0.1 mg/m ³ (Canada)
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: Viscous grey liquid with phenolic odor

WARNING!. Eye and skin irritant. Potential skin sensitizer.

Potential health effects

Primary Routes of Exposure: Eye. Skin. Inhalation (breathing)

Symptoms of acute overexposure

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

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

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

Medical Conditions Recognized as Being Aggravated by Exposure:

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

Other:

See Section 11

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: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Ingestion: If swallowed, give at least 3-4 glasses of water, but do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

5. FIRE FIGHTING MEASURES

Recommended Extinguishing Media: Carbon dioxide, Dry chemical, foam

Flash point: >300°F (148.8°C)

Method: Estimate

Lower Explosive

Upper Explosive

Limit: n/d

Limit: n/d

Special Fire-Fighting 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 to prevent all skin and eye contact. Use water spray to cool exposed containers.

Unusual Fire/Explosion Hazards:

Heating above 300°F in the presence of air may cause slow oxidation decomposition and above 500°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.

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 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.

Storage: Store in a cool, dry area. Store away from heat.

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: Chemical splash goggles or safety glasses where there is a risk of eye contact

Skin protection: Chemical-resistant gloves (Neoprene, nitrile) and other gear as required to prevent skin contact.

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: n/d

Boiling Point: >500°F

Melting point: n/d

Vapor Density (Air=1): >1

Vapor Pressure: <1 mmHg @ 68

Evaporation Rate: <1 (butyl acetate = 1)

VOC: 0

Solubility in water: Negligible

pH (5% solution or slurry in water): Neutral

10. STABILITY AND REACTIVITY

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

Conditions to Avoid: Open flame and extreme heat.

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

Hazardous Products of Combustion: When heated to decomposition it emits fumes of Cl-, carbon monoxide, other fumes and vapors varying in composition and toxicity

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: 1) **MUTAGENICITY:** Liquid resins based on diglycidyl ether of Bisphenol A (DGEBA), 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 DGEBA 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 DGEBA is not classifiable as a carcinogen (IARC Group 3), that is human and animal evidence of carcinogenicity is inadequate.

Other chronic effects: 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.

Toxicological information on hazardous chemical constituents of this product:

Component	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr (rat)
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	11400 mg/kg	n/d	n/d
DIONYLPHENOL 84962-08-3	n/d	n/d	n/d
BUTYLATED BISPHENOL A EPOXY RESIN 71033-08-4	n/d	n/d	n/d
CRYSTALLINE SILICA 14808-60-7	n/d	n/d	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 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.

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

14. TRANSPORT INFORMATION

Proper shipping name: Not regulated

Technical name: N/A

Hazard class: N/A

UN/ID Number: N/A

Packing group: N/A

Emergency Response Guide no: 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:

Component	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	12B EXPORT NOTIFICATION:
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	No	No	0.0	Not required
DIONYLPHENOL 84962-08-3	No	No	0.0	Not required
BUTYLATED BISPHENOL A EPOXY RESIN 71033-08-4	No	No	0.0	Not required
CRYSTALLINE SILICA 14808-60-7	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 contains a chemical or chemicals known to the State of California to cause birth defects or other reproductive harm.

Canadian Regulations

WHMIS Hazard Class: D2A VERY TOXIC MATERIALS, D2B TOXIC MATERIALS,

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

16. OTHER INFORMATION

Hazardous Material Information System (HMIS) rating:

Health 2* Flammability 1 Physical Hazard 1

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

Revision Date: October/06/2008

Revision Number: 4

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.

Material Safety Data Sheet

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H2HOLD UNDERWATER EPOXY HARDENER

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

22445, 22429

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: H2HOLD UNDERWATER 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
AMINOETHYLPIPERAZINE 140-31-8	AEP	5-15	Not listed	n/e	n/e
TETA, REACTION PRODUCTS WITH PROPYLENE OXIDE 26950-63-0	n/e	5-15	Not listed	n/e	n/e
DIONYLPHENOL 84962-08-3	DNP	5-15	Not listed	n/e	n/e
TRIETHANOLAMINE 102-71-6	TEA	<5	5 mg/m ³	n/e	n/e
PIPERAZINE 110-85-0	n/e	<5	Not listed	n/e	n/e
TRIETHYLENETETRAMINE 112-24-3	TETA	<5	Not listed	n/e	1 ppm TWA (AIHA- WEEL)
TRADE SECRET (Non-hazardous) MIXTURE	n/e	Balance	Not listed	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

WARNING! 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

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Eyes: Corrosive Severe irritation (pain, redness, swelling) or burns Overexposure may cause lacrimation, conjunctivitis, corneal damage and may cause permanent injury (i.e. blindness)

Inhalation: Corrosive to respiratory system. 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. Excessive inhalation causes headache, dizziness, nausea and incoordination. In confined spaces: may cause loss of consciousness and asphyxiation.

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 respiratory effects (coughing, tightness of chest, shortness of breath), nervous system disorders (narcosis, behavioral changes, decreased motor function), muscular disfunction, eye effects (conjunctivitis, corneal damage), or skin effects (rash, irritation, corrosion).

Component	Weight%	NTP	ACGIH Carcinogens	IARC
TRIETHANOLAMINE 102-71-6	<5	male rat-equivocal evidence; female rat-no evidence; male mice-inadequate; female mice-inadequate		Group 3; Monograph 77, 2000

Medical Conditions Recognized as Being Aggravated by Exposure:

Preexisting eye, skin and respiratory disorders may be aggravated by overexposure to this product. Neurological disorders.

Other:

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

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: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Ingestion: If swallowed, give at least 3-4 glasses of water, but do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

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

Recommended Extinguishing Media: Dry chemical, Carbon dioxide, Foam

Flash point: >88°C (>190°F)

Method: Estimate

**Lower Explosive
Limit:** n/d

**Upper Explosive
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 and toxic fumes with organic amines, ammonia, oxides of carbon and nitrogen, Acrylonitrile, Organic isocyanates, Aldehydes, Ketones

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, dry area. Store away from heat. Do not store in reactive metal containers. Keep away from acids and oxidizers.

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 (Neoprene, nitrile) 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: n/d

Boiling Point: >212°F

Melting point: n/d

Vapor Density (Air=1): >1

Vapor Pressure: <21 mmHg @ 70°F

Evaporation Rate: <1 (butyl acetate = 1)

VOC: 0

Solubility in water: >30%

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: Open flame and extreme heat. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

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

Hazardous Products of Combustion: Acrid and toxic fumes with organic amines, ammonia, oxides of carbon and nitrogen, Acrylonitrile, Organic isocyanates, Aldehydes, Ketones

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: TEA: prolonged and repeated ingestion has caused kidney damage in laboratory animals.

Carcinogenicity, teratogenicity and mutagenicity: Results from a battery of short-term genotoxicity tests on components in this material indicate mutagenic activity. TEA: male rats dermally exposed from 32-125 mg/kg showed a marginal increase in kidney tumors.

Other chronic effects: None known.

Toxicological information on hazardous chemical constituents of this product:

Component	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr (rat)
AMINOETHYLPIPERAZINE 140-31-8	2140 uL/kg	880 uL/kg	n/d
TETA, REACTION PRODUCTS WITH PROPYLENE OXIDE 26950-63-0	n/d	n/d	n/d
DIONYLPHENOL 84962-08-3	n/d	n/d	n/d
TRIETHANOLAMINE 102-71-6	oral rat 4920 uL/kg	rabbit >20 mL/kg	n/d
PIPERAZINE 110-85-0	oral rat 1900 mg/kg	rabbit 4000 mg/kg	n/d
TRIETHYLENETETRAMINE 112-24-3	oral rat 2500 mg/kg	rabbit 805 mg/kg	n/d
TRADE SECRET (Non-hazardous) MIXTURE	n/d	n/d	n/d

'n/d' = not determined

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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 if the preferred method of disposal.

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

14. TRANSPORT INFORMATION

Proper shipping name: Not regulated

Technical name: N/A

Hazard class: N/A

UN/ID Number: N/A

Packing group: N/A

Emergency Response Guide no: 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:

Component	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	12B EXPORT NOTIFICATION:
AMINOETHYLPIPERAZINE 140-31-8	No	No	0.0	Not required
TETA, REACTION PRODUCTS WITH PROPYLENE OXIDE 26950-63-0	No	No	0.0	Not required
DIONYLPHENOL 84962-08-3	No	No	0.0	Not required
TRIETHANOLAMINE 102-71-6	No	No	0.0	Not required
PIPERAZINE 110-85-0	No	No	0.0	Not required
TRIETHYLENETETRAMINE 112-24-3	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.

ITW Consumer - Devcon/Versachem

**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, Fire 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, B3 COMBUSTIBLE LIQUIDS, D2B TOXIC MATERIALS

16. OTHER INFORMATION

Hazardous Material Information System (HMIS) rating:

Health 2* Flammability 2 Physical Hazard 1

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

Revision Date: October 06, 2008

Revision Number: 4

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.

Material Safety Data Sheet

ITW Consumer - Devcon/Versachem

1 of 5

H2HOLD UNDERWATER EPOXY RESIN

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

22445, 22429

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: H2HOLD UNDERWATER 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 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
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	DGEBPA	40-70	Not listed	n/e	n/e
DIONYLPHENOL 84962-08-3	DNP	10-20	Not listed	n/e	n/e
BUTYLATED BISPHENOL A EPOXY RESIN 71033-08-4	n/e	5-15	Not listed	n/e	n/e
CRYSTALLINE SILICA 14808-60-7	n/e	0.1-1.0	0.025 mg/m ³	10(%Q+2) mppcf (respirable)	0.1 mg/m ³ (Canada)
TRADE SECRET (Non-hazardous) MIXTURE	n/e	Balance	Not listed	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: Viscous grey liquid with phenolic odor

WARNING! Eye and skin irritant. Potential skin sensitizer.

Potential health effects

Primary Routes of Exposure: Eye. Skin. Inhalation (breathing)

Symptoms of acute overexposure

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

ITW Consumer - Devcon/Versachem

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

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

Medical Conditions Recognized as Being Aggravated by Exposure:

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

Other:

See Section 11

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: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention.

Inhalation: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Ingestion: If swallowed, give at least 3-4 glasses of water, but do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

5. FIRE FIGHTING MEASURES

Recommended Extinguishing Media: Carbon dioxide, Dry chemical, Foam

Flash point: >300°F (148.8°C)

Method: Estimate

Lower Explosive

Upper Explosive

Limit: n/d

Limit: n/d

Special Fire-Fighting 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 to prevent all skin and eye contact. Use water spray to cool exposed containers.

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. 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.

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 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.

Storage: Store in a cool, dry area. Store away from heat.

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: Chemical splash goggles or safety glasses where there is a risk of eye contact

Skin protection: Chemical-resistant gloves (Neoprene, nitrile) and other gear as required to prevent skin contact.

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: n/d

Boiling Point: >500°F

Melting point: n/d

Vapor Density (Air=1): >1

Vapor Pressure: <1 mmHg @ 68°F

Evaporation Rate: <1 (butyl acetate = 1)

VOC: 0

Solubility in water: Negligible

pH (5% solution or slurry in water): Neutral

10. STABILITY AND REACTIVITY

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

Conditions to Avoid: Open flame and extreme heat.

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

Hazardous Products of Combustion: When heated to decomposition it emits fumes of Cl-, carbon monoxide, other fumes and vapors varying in composition and toxicity

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: 1) **MUTAGENICITY:** Liquid resins based on diglycidyl ether of Bisphenol A (DGEBA), 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 DGEBA 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 DGEBA is not classifiable as a carcinogen (IARC Group 3), that is human and animal evidence of carcinogenicity is inadequate.

Other chronic effects: 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.

Toxicological information on hazardous chemical constituents of this product:

Component	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr (rat)
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	11400 mg/kg	n/d	n/d
DIONYLPHENOL 84962-08-3	n/d	n/d	n/d
BUTYLATED BISPHENOL A EPOXY RESIN 71033-08-4	n/d	n/d	n/d
CRYSTALLINE SILICA 14808-60-7	n/d	n/d	n/d
TRADE SECRET (Non-hazardous) MIXTURE	n/d	n/d	n/d

'n/d' = not determined

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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 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.

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

14. TRANSPORT INFORMATION

Proper shipping name: Not regulated

Technical name: N/A

Hazard class: N/A

UN/ID Number: N/A

Packing group: N/A

Emergency Response Guide no: 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:

Component	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	12B EXPORT NOTIFICATION:
BISPHENOL A/EPICHLOROHYDRIN BASED EPOXY RESIN 25068-38-6	No	No	0.0	Not required
DIONYLPHENOL 84962-08-3	No	No	0.0	Not required
BUTYLATED BISPHENOL A EPOXY RESIN 71033-08-4	No	No	0.0	Not required
CRYSTALLINE SILICA 14808-60-7	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 contains a chemical or chemicals known to the State of California to cause birth defects or other reproductive harm.

Canadian Regulations

WHMIS Hazard Class: D2A VERY TOXIC MATERIALS, D2B TOXIC MATERIALS,

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

16. OTHER INFORMATION

Hazardous Material Information System (HMIS) rating:

Health 2* Flammability 1 Physical Hazard 1

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

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