

PHILLYCLAD 501 HARDENER

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical family Polyamine curing agent

General information: The following information applies to the hardener component of the two-part kit. When properly mixed and cured, the product is not hazardous.

MANUFACTURER

ITW Philadelphia Resins
130 Commerce Dr.
Montgomeryville, PA 18936

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC) (800) 424-9300
Other calls: (215) 855-8450

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	>25	n/e	n/e	10 (AIHA)
1,2-Cyclohexanediamine		694837	<30	n/e	n/e	n/e
Cycloaliphatic amine		*	< 75	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) as 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, physical form, odor: straw yellow liquid with ammoniacal odor.

WARNING! Severe eye, skin, respiratory tract irritant (evidenced by rash, burning sensation, soar throat, nausea, shortness of breath). Harmful if absorbed through skin. May cause skin or respiratory sensitization. Avoid breathing vapors. Use with adequate ventilation. Do not take internally. Wash thoroughly after handling. Do not expose to heat or flames.

Potential health effects:**Primary routes of exposure:**

Skin contact Skin absorption Eye contact Inhalation Ingestion

Symptoms of acute overexposure:**Skin:**

Irritant (dryness, defatting, itching, rash). Product may be absorbed through skin and cause nausea, headache and general discomfort.

Eyes:

Irritant. May cause lacrimation, conjunctivitis or corneal edema when absorbed into the tissue of the eye.

Inhalation:

Irritation of nose and throat (coughing, chest pain); nausea and vomiting in severe cases. Potential respiratory sensitizer.

Ingestion:

Ingestion may cause bleeding of the gastrointestinal tract and the vomiting of blood.

Effects of chronic overexposure:

Potential respiratory tract sensitizer and chronic lung toxicity (cough, tightness of chest, shortness of breath). May cause skin sensitization and adverse effects (defatting, irritation, rash, corrosion). May cause adverse eye effects (corneal damage or conjunctivitis). Repeated and/or prolonged inhalation of low concentrations of vapor may cause

Medical conditions which may be aggravated by exposure:

Asthma. Chronic respiratory disease (e.g. Bronchitis, Emphysema). Eye disease. Skin disorders and allergies.

Carcinogenicity -- OSHA regulated: No **ACGIH:** No **National Toxicology Program:** No

International Agency for Research on Cancer: No

Cancer-suspect constituent(s):

Other effects:

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:**

Immediately flush with clean water for at least 15 minutes while gently holding eyelids open. Seek medical advice.

First aid for skin:

Immediately remove contaminated clothing and shoes. Flush affected area with water. Seek medical advice.

First aid for inhalation:

Remove patient to fresh air. Give oxygen or artificial respiration if needed. Prevent aspiration of vomit. Turn victims head to side. Seek medical advice.

First aid for ingestion:

Call a physician immediately. Remove stomach contents by gastric suction or induced vomiting ONLY as directed by medical personnel. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Extinguishing media:

Water Carbon dioxide Dry chemical Foam Alcohol foam

Flash Point (°F): > 199.99

Method: closed cup

Explosive limits in air -- Lower: n/d

Upper: n/d

Special firefighting procedures:

Firefighters should wear self-contained breathing apparatus and sufficient protective clothing to prevent eye and skin contact (butyl rubber boots, gloves and body suit).

Unusual fire and explosion hazards:

Toxic or irritating combustion products. Sudden reaction and fire may result if mixed with an oxidizing material. Personnel in vicinity and downwind should be evacuated.

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. Eliminate ignition sources. Ventilate area. Can reduce vapor spread by using water spray.

Containment:

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

Cleanup:

Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective clothing. Admix spill with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste container for disposal.

Special procedures:

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

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with skin, eyes, or clothing. Avoid breathing vapors. Handle in well ventilated area. 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 dusts during sanding/grinding of cured product.

Storage precautions:

Store in a cool, dry, ventilated area in closed containers. Do not store in reactive metal containers. Keep away from acids and oxidizers.

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

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Other engineering controls:

Have emergency shower and eye wash stations available.

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

Splash-proof eye goggles. In emergency situation use eye goggles with full face shield.

Skin Protection:

Chemical resistant rubber gloves (neoprene, cuffed butyl rubber, nitrile, polyvinyl chloride) and other protective gear as required to prevent skin contact.

Respiratory protection:

None required in normal use with good ventilation; in poorly ventilated areas, wear NIOSH-approved organic vapor mask. If respirators are used, a program should be instituted to assure compliance with OSHA Standard 29 CFR 1910.134.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.04	Boiling point (°F):	401
Melting point (°F):	n/d	Vapor density (air = 1):	n/d
Vapor pressure (mmHg):	< 10.34	at 70 °F	Evaporation rate (butyl acetate = 1): n/d
VOC (grams/liter):	0	Solubility in water:	< 1%
Percent volatile by volume:	0	pH (5% solution or slurry in water):	Alkaline
Percent solids by weight:	100		0

10. STABILITY AND REACTIVITY

This product is chemically stable.

Hazardous polymerization will not occur.

Conditions to avoid:

Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

Incompatible materials:

Mineral and organic acids. Oxidizing agents. Reactive metals. Sodium or calcium hypochlorite. Peroxides. Materials reactive with hydroxyl compounds.

Hazardous decomposition products:

Oxides of nitrogen and carbon; ammonia. Irritating and toxic fumes. Nitric acid (TLV= 2 ppm). Aldehydes.

Conditions of hazardous polymerization:

Heat is released when this material is mixed with epoxy resin; be careful when mixing a pound or more.

11. TOXICOLOGICAL INFORMATION**Acute oral effects:**

LD50 (rat): > 4400 mg/kg (estimate)

Acute dermal effects

LD50 (rabbit): > 2000 mg/kg (estimate)

A moderate irritant to the skin of a rabbit.
Projecting respiratory irritation due to skin irritation.**Acute inhalation effects:**

LC50 (rat): No data in 0 hours

Eye irritation:

No data.

Subchronic effects

No data.

Chronic effects

It has been generally observed in animal studies that aliphatic amines can cause changes in the lungs, liver, kidneys and heart.

Carcinogenicity, teratogenicity, and mutagenicity:

No data..

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 (rat, 4 hours)
Benzyl alcohol	1230 mg/kg	2000 mg/kg	> 2000 ppm
1,2-Cyclohexanediamine	1 g/kg	n/d	> 3200 mg/m ³
Cycloaliphatic amine	n/d	n/d	n/d

12. ECOLOGICAL INFORMATION**Ecotoxicity:**

No data.

Mobility and persistence:

No data.

Environmental fate:

No data.

13. DISPOSAL CONSIDERATIONS**Waste management recommendations:**

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

14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated

Technical name: N/A

Hazard class: N/A

UN number: N/A

Packing group: N/A

IMDG Page no.: N/A

Emergency Response Guide no.: N/A

Other: N/A

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

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

The following RCRA code(s) applies to this material if it becomes waste: None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Benzyl alcohol	No	No	No	Not required
1,2-Cyclohexanediamine	No	No	No	Not required
Cycloaliphatic amine	No	No	No	Not required

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

Classification of this material for SARA Section 312 hazardous materials inventory reporting:

Immediate health hazard Delayed health hazard

Canadian regulations

WHMIS hazard class(es): D2A; D2B

16. OTHER INFORMATION

Hazardous Materials Information System (HMIS) ratings:		
Health	Flammability	Reactivity
2*	1	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.