

# Material Safety Data Sheet

ITW Performance Polymers - Versachem

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## REAR WINDOW DEFOGGER REPAIR KIT, PART A

This product appears in the following stock number(s):  
90130

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Tradename:** REAR WINDOW DEFOGGER REPAIR KIT, PART A

**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:** Filled Novolac resin

### MANUFACTURER

ITW Performance Polymers - Versachem  
2107 West Blue Heron Blvd.  
Riviera Beach, FL 33404

### EMERGENCY INFORMATION

Emergency telephone number  
(CHEMTREC): (800) 424-9300  
(CHEMTREC International): 703-527-3887  
Other Calls: (561) 845-2425

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Abbr.	Weight Percent	ACGIH TLV:	OSHA PEL:	Other Limits
SILVER 7440-22-4	Ag	60-80	0.1 mg/m <sup>3</sup> TWA	0.01 mg/m <sup>3</sup> TWA	0.01 mg/m <sup>3</sup> Canada
PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER 28064-14-4	n/e	15-40	n/e	n/e	n/e
BUTYL GLYCIDYL ETHER 2426-08-6	BGE	1-5	3 ppm TWA	50 ppm TWA; 270 mg/m <sup>3</sup> TWA	25 ppm Canada
TRADE SECRET (Non-hazardous) MIXTURE	n/e	Balance	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 identify is a trade secret of our supplier and unknown to us.

## 3. HAZARDOUS IDENTIFICATION

### Emergency Overview

**Appearance, form, odor:** Viscous silver liquid with little odor

**WARNING!** Eye and skin irritant. Potential skin sensitizer. Avoid breathing vapors. Use with adequate ventilation. Do not take internally.

### Potential health effects

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

### 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:** Causes moderate eye irritation. 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.

**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.

**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, BGE: Repeated and/or prolonged exposures may result in reproductive disorders (such as birth defects or sterility)

#### 4. FIRST AID MEASURES

**Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes. Get 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.

**Inhalation:** Move to fresh air; get medical attention if symptoms persist.

**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.

#### 5. FIRE FIGHTING MEASURES

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

**Flash point:** >141°F

**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.

**Hazardous Products of Combustion:**

Carbon monoxide, aldehydes, acids and other organic substances may be formed during combustion or elevated temperatures (500 degrees F.)

#### 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.

## 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, ventilated area away from ignition sources.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering controls

#### **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.

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

### Personal protective equipment

**Eye and face protection:** Safety glasses with side shields.

**Skin protection:** Chemical-resistant gloves (i.e. butyl) and other gear as required to prevent skin contact.

**Respiratory protection:** With good ventilation, none required. Use NIOSH-approved organic vapor cartridges for uncured product and dust/particle respirators during sanding/grinding operations of cured product as exposure levels dictate.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Specific Gravity:** Approx. 2.9

**Boiling Point:** n/d

**Melting point:** n/d

**Vapor Density (Air=1):** >1

**Vapor Pressure:** n/d

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

**VOC:** n/d

**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 (esp. primary and secondary aliphatic amines)

**Hazardous Products of Combustion:** Carbon monoxide, aldehydes, acids and other organic substances may be formed during combustion or elevated temperatures (500 degrees F.)

**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 irritation:** No data available.

**Subchronic effects:** No data available.

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

**Other chronic effects:** BGE: Repeated and/or prolonged exposures may result in reproductive disorders.

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

Ingredient	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr (rat)
SILVER 7440-22-4	>2000 mg/kg	n/d	n/d
PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER 28064-14-4	n/d	n/d	n/d
BUTYL GLYCIDYL ETHER 2426-08-6	1660 mg/kg	2520 uL/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 product becomes a waste, it would be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state and local regulations.

**US EPA Waste Number:** D011.

## 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

**IMDG page number:** 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:**

D011

**Regulatory status of hazardous chemical constituents of this product:**

Ingredient	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	12B EXPORT NOTIFICATION:
SILVER 7440-22-4	No	Yes	1000 lbs. (454 kg)	Not required
PHENOL, POLYMER WITH FORMALDEHYDE, GLYCIDYL ETHER 28064-14-4	No	No	0.0	Not required
BUTYL GLYCIDYL ETHER 2426-08-6	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, 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 listed chemical at or above the No Significant Risk Limit.

**Canadian regulations**

**WHMIS Hazard Class:** 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:** 04/28/2006

**Revision Number:** 2

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 Performance Polymers - Versachem

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### REAR WINDOW DEFOGGER REPAIR KIT, PART B

This product appears in the following stock number(s):  
90130

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Tradename:** REAR WINDOW DEFOGGER REPAIR KIT, PART B

**General use:** The following information applies to the hardener component of the two-part kit and to freshly mixed resin and hardener. After curing, product is not hazardous.

**Chemical family:** Aliphatic amines

### MANUFACTURER

ITW Performance Polymers - Versachem  
2107 West Blue Heron Blvd.  
Riviera Beach, FL 33404

### EMERGENCY INFORMATION

Emergency telephone number  
(CHEMTREC): (800) 424-9300  
(CHEMTREC International): 703-527-3887  
Other Calls: (561) 845-2425

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	Abbr.	Weight Percent	ACGIH TLV:	OSHA PEL:	Other Limits
SILVER 7440-22-4	Ag	70-80	0.1 mg/m <sup>3</sup> TWA	0.01 mg/m <sup>3</sup> TWA	0.01 mg/m <sup>3</sup> Canada
PHENOL 108-95-2	n/e	<12	5 ppm TWA; 19 mg/m <sup>3</sup> TWA	5 ppm TWA; 19 mg/m <sup>3</sup> TWA	5 ppm (Canada)
DIETHYLENE TRIAMINE 111-40-0	DETA	<5	1 ppm TWA	1 ppm TWA	1 ppm (Canada)
(DIMETHYLAMINO) METHYLPHENOL 25338-55-0	n/e	<2	n/e	n/e	n/e
TRADE SECRET (Non-hazardous) MIXTURE	n/e	Balance	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 identify is a trade secret of our supplier and unknown to us.

## 3. HAZARDOUS IDENTIFICATION

### Emergency Overview

**Appearance, form, odor:** Viscous, amber paste with ammoniacal odor

**WARNING!** Eye, skin and respiratory irritant. Harmful if absorbed through skin. Potential skin and respiratory sensitizer. Use with adequate ventilation. Do not take internally.

### Potential health effects

**Primary Routes of Exposure:** Eye. Skin. Inhalation (breathing), skin absorption

### Symptoms of acute overexposure

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

**Eyes:** Causes severe irritation with possible damage and even blindness.

**Inhalation:** Causes severe respiratory irritation. Inhalation of vapors may severely damage contacted tissue and produce scarring. Effects of inhalation may be delayed.

**Ingestion:** Harmful if swallowed. May cause gastric distress (nausea, vomiting, diarrhea).

**Effects of Chronic Exposure:** Repeated and/or prolonged exposures to this product may cause allergic reaction/sensitization. Prolonged exposure may result in liver disorders (such as jaundice or liver enlargement), kidney effects (such as edema or proteinuria), adverse respiratory effects (such as cough, tightness of chest or shortness of breath), adverse eye effects (such as conjunctivitis or corneal damage), adverse skin effects (such as rash, irritation or corrosion). Effects from inhalation may be delayed.

Ingredient	Weight Percent	NTP	ACGIH Carcinogens	IARC
PHENOL 108-95-2	<12	male rat-negative; female rat-negative; male mice-negative; female mice-negative		Group 3 Vol. 71, pg 749; 1999

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

Asthma, chronic respiratory disease, eye disease, kidney, liver skin disorders and allergies.

**Other:**

Target organs:, Eyes, Skin, Liver, Kidneys, Respiratory system (dust)

#### 4. FIRST AID MEASURES

**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.

**Skin Contact:** Remove contaminated clothing. Wash area with soap and water. If irritation persists, seek medical attention.

**Inhalation:** Move to fresh air; get medical attention if symptoms persist.

**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.

**Notes to Physician:** Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

#### 5. FIRE FIGHTING MEASURES

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

**Flash point:** >200°F

**Method:** Estimate

**Lower Explosive**

**Upper Explosive**

**Limit:** n/d

**Limit:** n/d

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

**Unusual Fire/Explosion Hazards:**

Sudden reaction and fire may result if product is mixed with an oxidizing agent. Irritating or toxic gases or fumes may be generated by thermal decomposition or combustion.

**Hazardous Products of Combustion:**

Carbon monoxide, Oxides of nitrogen, Ammonia, Oxides of sulfur, Hydrogen sulfide

#### 6. ACCIDENTAL RELEASE MEASURES

**Spill Control:** Avoid personal contact. Eliminate ignition sources. Ventilate area.

**Containment:** Dike with inert absorbent.

**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. 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. 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:** Keep away from acids and oxidizers. Do not store in reactive metal containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering controls

#### **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.

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

### Personal protective equipment

**Eye and face protection:** Safety glasses with side shields.

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

**Respiratory protection:** With good ventilation, none required. An approved respirator (i.e. NIOSH, etc.) should be worn when exposures are expected to exceed the applicable limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Specific Gravity:** 3.0

**Boiling Point:** >350°F

**Melting point:** n/d

**Vapor Density (Air=1):** n/d

**Vapor Pressure:** n/d

**Evaporation Rate:** n/d

**VOC:** n/d

**Solubility in water:** Negligible

**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.

**Incompatibilities:** Strong mineral and organic bases, Strong oxidizers, Acids, Sodium/calcium hypochlorite

**Hazardous Products of Combustion:** Carbon monoxide, Oxides of nitrogen, Ammonia, Oxides of sulfur, Hydrogen sulfide



**Conditions under which hazardous polymerization may occur:** When this hardener is mixed with an epoxy resin, heat is generated; be careful when mixing more than an ounce or so.

## 11. TOXICOLOGICAL INFORMATION

**Eye irritation:** No data available.

**Subchronic effects:** No data available.

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

**Other chronic effects:** It has been generally observed in animal studies that aliphatic amines can cause changes in the lungs and heart.

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

Ingredient	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr (rat)
SILVER 7440-22-4	>2000 mg/kg	n/d	n/d
PHENOL 108-95-2	n/d	n/d	n/d
DIETHYLENE TRIAMINE 111-40-0	n/d	n/d	n/d
(DIMETHYLAMINO) METHYLPHENOL 25338-55-0	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 this product becomes a waste, it would be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state and local regulations.

**US EPA Waste Number:** D011.

## 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

**IMDG page number:** 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:

D011

**Regulatory status of hazardous chemical constituents of this product:**

Ingredient	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	12B EXPORT NOTIFICATION:
SILVER 7440-22-4	No	Yes	1000 lbs. (454 kg)	Not required
PHENOL 108-95-2	TPQ = 500/10,000 pounds; RQ = 1000 pounds	No	final RQ = 1000 pounds (454 kg)	Not required
DIETHYLENE TRIAMINE 111-40-0	No	No	0.0	Not required
(DIMETHYLAMINO) METHYLPHENOL 25338-55-0	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:** D2B TOXIC MATERIALS, D2A VERY TOXIC MATERIALS

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

**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:** 05/01/2006

**Revision Number:** 2

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.