



MATERIAL SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

DESCRIPTION: Cascophen LT-5210Q

1. Chemical Product and Company Identification

DESCRIPTION: **Cascophen LT-5210Q**
 PRODUCT CODE: 303230
 PRODUCT TYPE: Liquid PRF Resin
 APPLICATION: PRF I-Beam Laminating Resin

Part of the CASCO® Brand of Adhesives and Resins from Hexion

Manufacturer/Supplier Information

MSDS prepared by:
 Hexion Specialty Chemicals, Inc.
 155 West A Street, Bldg. A-1
 Springfield, OR
 97477

For Emergency Medical Assistance
 Call Health & Safety Information Services
 1-866-303-6949

For additional health and safety or regulatory information, call (541)744-3256.

2. Hazards Identification

2.1 Emergency Overview

Appearance	Clear, reddish-brown liquid
Odor	Slight alcoholic

WARNING!

COMBUSTIBLE LIQUID

Will polymerize at high temperatures with some evolution of heat.

Hazardous polymerization may occur.

Overexposure may cause central nervous system effects. May cause irritation of nose, throat and lungs if allowed to become airborne.

Causes chemical burns to eyes.

NORTH AMERICAN EMERGENCY RESPONSE GUIDE, 2000, NO: 128

HMIS Rating

HEALTH	=	3 (serious)
FLAMMABILITY	=	2 (moderate)
REACTIVITY	=	1 (slight)
CHRONIC	=	*

HMIS® ratings involve data interpretations that may vary from company to company. They are intended only for the rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

2.2 Potential Health Effects

Immediate Hazards

INGESTION:	Not expected to be harmful under normal conditions of use.
INHALATION:	Not expected to be harmful under normal conditions of use. However, overexposure may cause central nervous system effects. Also, if allowed to become airborne, may cause irritation of nose, throat and lungs.
SKIN:	May cause irritation on prolonged or repeated contact.
EYES:	Causes chemical burns.

64-17-5 Ethanol

Can cause central nervous system depression. Signs and symptoms may include headache, dizziness, nausea, vomiting and drowsiness.

108-95-2 Phenol

Can cause central nervous system effects. Signs and symptoms may include headache, dizziness, nausea, vomiting, motor difficulties and unconsciousness.

108-46-3 Resorcinol

This chemical is slightly to moderately toxic by ingestion, inhalation and skin absorption. Signs of acute poisoning in rats include central nervous system stimulation, tremors and convulsions followed by depression and death, or complete recovery within 8-24 hours. Animal studies have further indicated that high acute doses have caused reversible damage to the thyroid as well as damage to the blood, spleen, liver, kidney and lungs. Since it is rapidly absorbed and rapidly eliminated from the body, there are no identified chronic or cumulative adverse effects.

Delayed Hazards

64-17-5 Ethanol

Ingestion may cause liver damage.
-- See Footnote at end of section

108-95-2 Phenol

Can cause liver and kidney damage. Signs and symptoms of chronic poisoning may include vomiting, difficulty in swallowing, diarrhea, lack of appetite, jaundice, fatigue, bleeding or easy bruising and sometimes pain and swelling in the upper right abdomen, changes in urine output or dark urine, pain upon urination or in the lower back, or general edema. Can also cause cardiac damage evidenced by shortness of breath and in severe cases cardiac arrest. Preexisting medical conditions of the heart, kidney, liver, lung, eyes and skin may be aggravated by exposure.
-- See Footnote at end of section

Footnote: As of the date of issuance of this document, this material has not been listed by NTP, classified by IARC nor regulated by OSHA as a carcinogen.

3. Composition, Information on Ingredients

The ingredients listed below have been associated with one or more immediate and/or delayed(*) health hazards. Risk of damage and effects depends upon duration and level of exposure. BEFORE USING, HANDLING, OR EXPOSURE TO THESE INGREDIENTS, READ AND UNDERSTAND THE MSDS.

		% by weight
64-17-5	*Ethanol	1.0 - 5.0
108-46-3	Resorcinol	1.0 - 5.0
108-95-2	*Phenol	5.0 - 10.0

Any applicable Canadian trade secret numbers will be listed in Section 15.2.

4. First Aid Measures

- INGESTION:** If accidentally swallowed, dilute by drinking large quantities of water. If the individual is drowsy or unconscious, do not give anything by mouth. Immediately contact poison control center or hospital emergency room for advice on whether to induce vomiting or for any other additional treatment directions.
- INHALATION:** Remove to fresh air.
- SKIN:** In case of irritation, flush with water.
- EYES:** Immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to ensure water contact with entire surface of eyes and lids. Call a physician.
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5. Fire Fighting Measures

Suitable Extinguishing Media: In case of fire, use water spray, dry chemical, foam or CO₂. Use water to keep fire-exposed containers cool.

COMBUSTIBLE LIQUID. Keep away from heat and flame.

6. Accidental Release Measures

Eliminate all ignition sources. Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. For large spills, use water spray to disperse vapors and flush spill area. Prevent runoff from entering waterways or sewers. Use appropriate Personal Protective Equipment (PPE).

7. Handling and Storage

7.1 Handling

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing. Wash thoroughly after handling. Always use appropriate Personal Protective Equipment (PPE).

- INHALATION:** Avoid prolonged or repeated breathing of vapor.
- SKIN:** Avoid prolonged or repeated contact with skin and clothing.
- EYES:** Do not get in eyes.
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7.2 Storage

Keep container closed.

Store in a cool, dry place.

Not harmed by freezing. If frozen, resin should be thawed slowly at room temperature and agitated thoroughly before use.

Storage life is 9 months at 70°F, less at higher temperatures.

8. Exposure Controls/Personal Protection

8.1 Exposure Guidelines

64-17-5		Ethanol			
ACGIH TLV	8-hr TWA	1,000 ppm	1,880 mg/m ³		
OSHA PEL		1,000 ppm	1,900 mg/m ³		
108-46-3		Resorcinol			
ACGIH TLV	8-hr TWA	10 ppm	45 mg/m ³		
	STEL (15 min)	20 ppm	90 mg/m ³		
OSHA PEL	None Established				
	Remanded TWA	10 ppm	45 mg/m ³		1989 PEL remanded, but in effect in some states
	Remanded STEL	20 ppm	90 mg/m ³		
108-95-2		Phenol			
ACGIH TLV	8-hr TWA	5 ppm	19 mg/m ³	Skin	
OSHA PEL	8-hr TWA	5 ppm	19 mg/m ³	Skin	

8.2 Exposure Controls

ENGINEERING CONTROLS: The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programs are adequate.

If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentration levels below acceptable criteria.

8.3 Personal Protection

Where air contaminants can exceed acceptable criteria, use NIOSH (42 CFR Part 84) approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air in accordance with OSHA laws and regulations or other applicable standards or guidelines, including ANSI standards regarding respiratory protection. Use goggles if contact is likely. Wear impervious gloves as required to prevent skin contact.

9. Physical and Chemical Properties

Appearance	Clear, reddish-brown liquid
Odor	Slight alcoholic
Odor threshold	Not available
pH	9.8 - 10.2
Freezing point	Less than 0 °C (32 °F)
Boiling point, 760 mm Hg	102 °C (216 °F)
Flash point	65 °C (149 °F) Pensky-Martens Closed Cup ASTM D 93
Evaporation rate	0.6 (Butyl Acetate = 1)
Lower explosion limit	Not available
Upper explosion limit	Not available
Vapor pressure	Approx. 55 mm Hg @25 °C (77 °F)
Vapor density	Not available
Specific gravity	Approx. 1.1751
Solubility in water	Slightly
Octanol/water partition coefficient	Not available
Autoignition temperature	Not available
Viscosity	1,450 - 1,650 cPs
Typical % solids	56.00 % (m)

10. Stability and Reactivity

Chemical Stability

Normally stable, but will polymerize at high temperatures with some evolution of heat.

Incompatible Materials

Oxidizers, acids

Hazardous Decomposition Products

CO, CO₂, aldehydes (including formaldehyde), particulate matter and other organic compounds.

Possibility of Hazardous Reactions

Hazardous polymerization may occur.

11. Toxicological Information

INGESTION:	A similar product was found to have an LD ₅₀ >0.5 g/kg when tested as described in 16 CFR Part 1500.3 (c)(1) and (2).
INHALATION:	A similar product was found to be non-toxic by inhalation when tested as described in 16 CFR Part 1500.3 (c)(1) and (2).
SKIN ABSORPTION:	A similar product was found to be non-toxic dermally when tested as described in 16 CFR Part 1500.3 (c)(1) and (2).
SKIN:	A similar product was not a primary irritant (primary skin irritation index less than 5.0/8.0) when tested as described in 16 CFR Part 1500.41.
EYES:	A similar product was severely irritating when tested as described in 16 CFR Part 1500.42.

64-17-5 Ethanol

LC50: rat=20,000 mg/l/10 h (Sax)

LD50: Oral-rat= 7,060 mg/kg (Sax)

108-46-3 Resorcinol

LC50: Not available

LD50: Oral-rat= 301 mg/kg (Sax); Skin-rabbit= 3,360 mg/kg (Sax)

108-95-2 Phenol

LC50: rat=0.316 mg/l (RTECS)

LD50: Oral-rat= 414 mg/kg (Sax); Skin-rabbit= 850 mg/kg (Sax)

12. Ecological Information

Not determined

13. Disposal Considerations

Recover free liquid. Absorb residue and dispose of according to local, state/provincial, and federal requirements. Empty container: May contain explosive vapors. DO NOT cut, puncture or weld on or nearby.

14. Transport Information

14.1 U.S. Department of Transportation (DOT)

The data provided in this section is for information only and may not be specific to your package size or mode of transport. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

Proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (Ethanol, Phenol)
UN/NA number	1993
Class	N/A
Packing group	III
Label	
RQ Ingredients	Phenol

14.2 Canadian Transportation of Dangerous Goods (TDG)

Regulation: Non regulated

14.3 Other Regulations

- **ADR/RID**
Regulation: Non regulated
- **IMO/IMDG**
Regulation: Non regulated
- **IATA (Passenger)**
Regulation: Non regulated

15. Regulatory Information (Selected Regulations)

15.1 U.S. Federal Regulations

OSHA Hazards Communication Standard 29CFR1910.1200

This material is a "health hazard" and/or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration 29 CFR Part 1910.1200 "Hazard Communication" Standard.

SARA Title III: Section 311/312

Immediate health hazard
 Delayed health hazard
 Fire hazard
 Reactivity hazard

SARA Title III: Section 313 and 40 CFR Part 372

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372.

Phenol	108-95-2	8.10%
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TSCA Section 8(b) Inventory

All reportable chemical substances are listed on the TSCA Inventory. We rely on certifications of compliance from our suppliers for chemical substances not manufactured by us.

15.2 Canadian Regulations

Workplace Hazardous Materials Information System (WHMIS)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the MSDS contains all the information required by the CPR.

Class B3
 Class D2B

Canadian Environmental Protection Act (CEPA)

All reportable chemical substances are listed on the Domestic Substances List (DSL) or otherwise comply with CEPA new substance notification requirements.

National Pollutant Release Inventory (NPRI)

This product contains the following chemical(s) subject to the reporting requirements of the Canadian Environmental Protection Act (CEPA) subsection 16(1), National Pollutant Release Inventory.

Phenol (and its salts)	108-95-2	8.10%
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16. Other Information

User's Responsibility

The OSHA Hazard Communication Standard 29CFR 1910.1200 and the Workplace Hazardous Materials Information System (WHMIS) require that the information contained on these sheets be made available to your workers. Educate and train your workers regarding OSHA and WHMIS precautions. Instruct your workers to handle this product properly. Consult with appropriate experts to guard against hazards associated with use of this product and its ingredients.

Disclaimer

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