

AMETEK[®]
CHEMICAL PRODUCTS DIVISION
900 GREENBANK ROAD
WILMINGTON, DE 19808
TELEPHONE: (302) 995-0400
FAX: (302) 995-0491
www.ametekhaveg.com



Material Safety Data Sheet

MSDS #17
Date Printed 08/28/01

Product: Haveg 4801 Phenolic Resin

1. Chemical Product and Company Identification

Trade Name Haveg 4801 Phenolic Resin

Synonyms None

Manufacturer

AMETEK, INC., CHEMICAL PRODUCTS DIVISION
HAVEG SITE
900 Greenbank Road
Wilmington, DELAWARE 19808

**24 HOUR EMERGENCY ASSISTANCE: CHEMTREC
(800) 424-9300**
Phone Product Information (302) 995-0400
Revision Date October 19, 2000

Description

No Hazard Rating is available for this Product

2. Composition and Information on Ingredients

Ingredient(s)	CAS Number	Percent (W/W)
Phenol-Formaldehyde Resin	9003354	Proprietary Information
Phenol (Free)	108-95-2	9.0
Formaldehyde (Free)	50-00-0	0.8
Ethyl Alcohol	64-17-5	Proprietary Information

3. Hazard Identification

Emergency Overview:

Reddish-brown, low viscosity liquid with characteristic phenolic resin odor. Keep container tightly closed when not in use and do not breathe vapors unnecessarily. Do not allow this product to come in contact with strong mineral acids, such as sulfuric or hydrochloric acids, in order to prevent danger of violent exotherm occurring.

Effects of Overexposure:

Eye Contact: Vapors may be irritating to the eyes.

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Skin Contact: May be irritating to the skin, and repeated contact with the skin may cause dermatitis in sensitive individuals.

Inhalation: Vapors may be irritating to the respiratory tract.

Ingestion: Phenol (free) is highly toxic by ingestion.

Carcinogenicity Information:

Formaldehyde

POTENTIAL CANCER HAZARD (A2)

Based on animal data and limited epidemiological evidence, NTP and IARC have listed formaldehyde as a probable human carcinogen. OSHA regulates formaldehyde as a potential human carcinogen.

May cause allergic skin reaction. Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma.

Phenol

Can cause liver, kidney, bladder, and cardiac damage.

Pre-existing heart or circulatory disorders may be aggravated by exposure.

This material has not been listed by NTP, classified by IARC, nor regulated by OSHA as a carcinogen (A4)

Primary routes of entry:

Skin and eye contact, inhalation and ingestion.

4. First Aid Information

Eye Contact: Flush eyes with large amounts of water for at least 15 minutes, then seek medical attention.

Skin Contact: Remove contaminated clothing. Wash skin with mild soap and cool water.

Inhalation: Remove person from source of exposure to fresh air, then seek medical attention immediately.

Ingestion: Seek medical attention immediately.

5. Fire Fighting Measures

Flash Point: >210°F, ASTM Method, D 93 (PM CC)

Lower Explosive Limit (%): N.D..

Upper Explosive Limit (%): N.D.

Autoignition Temperature: N.D.

Extinguishing Media: Use water, dry chemical, or carbon dioxide.

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Unusual Fire & Explosion Hazards: During a fire, free phenol and free formaldehyde may be released as well as their combustion products, and carbon monoxide and/or carbon dioxide.

Fire Fighting Instructions: Wear full fire fighting protective equipment including self-contained breathing apparatus.

6. Accidental Release Measures

Steps to be taken in case material is released or spilled:

1. Cover small spills with sand or other non-combustible absorbent. Do not allow spilled material to enter waterway as phenolic resin may be leached out.
2. Dispose of all waste materials in accordance with all applicable federal, state, and local environmental regulations.

7. Handling and Storage

Handling:

1. Avoid skin contact. Handle with care.
2. Handle in well-ventilated area.
3. Use safety glasses with sideshields and impervious gloves when ever handling this material.

Storage

Store material in closed containers, preferably at 35°F, to maintain maximum shelf life.

8. Exposure Controls and Personal Protection

ENGINEERING CONTROLS:

Ventilation:

General ventilation and/or local exhaust ventilation as well as process isolation may be used to minimize employee exposure and maintain exposures below the TLV.

Respiratory Protection:

Use NIOSH approved full face-piece respiratory protection equipment where air contaminants exceed acceptable criteria.

Eye Protection:

Wear safety glasses with sideshields, or chemical splash goggles.

Protective Clothing:

Wear protective (impervious) gloves as required to prevent skin contact. Full body protective clothing should be worn in the event of a spill or other emergency.

Other Protective Equipment:

Eye wash fountain, safety shower

Hygienic Practices:
Use good hygienic practices

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EXPOSURE LIMITS:

	<u>OSHA (PEL)</u>	<u>ACGIH</u>	<u>NOTATIONS</u>
Phenolic Resin	N.E.	N.E.	
Phenol (Free)	5 ppm (skin)	5 ppm (skin)	
Formaldehyde (Free)	0.75 ppm STEL 2 ppm	(C) 0.3 ppm	A2
Ethyl Alcohol	1,000 ppm	1,000 ppm	

9. Physical and Chemical Properties

PHYSICAL DATA:

Boiling Point: 205° F
Melting Point: N.A.
Solubility in Water: Slightly soluble
Vapor Pressure: N.D.
Vapor Density: N.D.
Specific Gravity: 1.18
pH: 6.9-7.1
Color: Reddish-brown
Odor: Characteristic phenolic resin odor
Physical State: Low viscosity liquid

10. Stability and Reactivity

Chemical Stability – Product is stable at normal temperatures and storage conditions, but will polymerize at high temperatures with some evolution of heat.

Incompatibilities – Strong mineral acids such as sulfuric or hydrochloric acid, oxidizers.

Hazardous Polymerization: Hazardous polymerization will not occur under normal conditions.

Hazardous Decomposition Products: During decomposition, free phenol and free formaldehyde may be released as well as their decomposition products, and carbon monoxide and/or carbon dioxide and other unidentified organic compounds.

11. Toxicological Information

Formaldehyde 50-00-0

Formaldehyde is currently listed as a suspected carcinogen by IARC and is also in the “D” list of suspected carcinogens as defined by Proposition 65 under California law.

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Phenol 108-95-2

Inhalation - LC 50: Mouse = 177 mg/m³

Dermal, LD50: Rabbit = 630 mg/kg

Oral, LD50: Rat = 317 mg/kg.

12. Ecological Information

Phenol-formaldehyde polymers have a very low rate of biodegradation. Bio-accumulation is expected to be minimal. Unreacted monomer may be leached into ground water even after normal curing has occurred.

13. Disposal Considerations

Dispose of all waste material including containers in accordance with applicable federal, state, and local environmental regulations.

14. Transportation Information

DOT Proper Shipping Name: Phenolic Resin

DOT Hazardous Class: None

DOT UN/NA Number: None

Emergency Response Guide Number: None

15. Regulatory Information

U.S. Federal Regulations as Follows:

SARA Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372:

Phenol 108-95-2

Formaldehyde 50-00-0

TSCA:

The chemical substances in this product are on the TSCA Section 8 Inventory.

EXPORT NOTIFICATION:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

Phenol

Formaldehyde

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INTERNATIONAL REGULATIONS: AS FOLLOWS:

Canadian WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

Canadian WHMIS CLASS: Not Regulated.

DSL:

The chemical substances in this product are listed on the Domestic Substances List (DSL).

16. Other Information

This Material Safety Data Sheet was revised in its entirety in October 2000

ABBREVIATIONS:

- 1) ACGIH – American Conference of Governmental Industrial Hygienists
- 2) OSHA – Occupational Safety and Health Administration
- 3) NIOSH – National Institute for Occupational Safety and Health
- 4) IARC – International Agency for Research on Cancer
- 5) NTP – National Toxicology Program
- 6) TLV – Threshold Limit Value
- 7) PEL – Permissible Exposure Limit
- 8) TWA – Time Weighted Average
- 9) STEL – Short Term Exposure Limit
- 10) IDLH – Immediately Dangerous to Life or Health
- 11) N.A. – Not Applicable
- 12) N.D. – Not Determined
- 13) N.E. – Not Established
- 14) DSL – Domestic Substances List

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