

Material Safety Data Sheet
Flexsil Coating Resin
AMETEK
Specialty Chemical Products Division

Prepared 2/06
Revision 2

Page 1 of 4

Section 1 --- Chemical Product and Company Identification

Trade Name: Flexsil Coating Resin

Manufacturer: AMETEK Chemical Products Division
42 Mountain Avenue
Nesquehoning, PA 18240
Emergency Telephone No.: Chemtrec (800) 424-9300

Section 2 --- Composition/Information on Ingredients

<u>Ingredients</u>	<u>CAS NO.</u>	<u>% Comp.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Amorphous Silica	7631-86-9	92-98	20 ppm*	None
Phenol-Formaldehyde	9003-35-4	15-20**	None	None
Phenol (free)	108-95-2	Unknown	5 ppm	5 ppm
Formaldehyde (free)	50-00-0	Unknown	0.75 ppm***	None
Ethyl Alcohol	64-17-5	Proprietary	1000 ppm	1000 ppm
Methyl Isobutyl Ketone	108-10-1	2.4	100 ppm	50 ppm
Aliphatic Hydrocarbons	None	0.50	None	None

* OSHA PEL Table Z-3: Millions of particles per cubic foot of air.

** % of actual coating as a % of the base material.

***See 29 CFR 1910.1048.

Section 3 --- Hazard Information

Appearance and Odor: Reddish brown low viscosity liquid with characteristic alcohol odor.

HMIS Rating: No hazard rating is available for this product.

Primary Entry Routes: Skin contact, inhalation, ingestion and eye contact

Effects of Overexposure:

Inhalation: Vapors may be irritating to the respiratory tract.

Eye: Vapors may be irritating to the eyes.

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

Ingestion: May cause temporary irritation of the digestive tract. Phenol (free) is highly toxic by ingestion.

Carcinogenicity:

OSHA carcinogens: Formaldehyde gas

IARC Class 1 (carcinogenic to humans): Formaldehyde gas

IARC Class 3 (possibly carcinogenic to humans): Phenol and amorphous silica

NTP 2 (reasonably anticipated to be a carcinogen): Formaldehyde gas

Section 4 --- First Aid Measures

Inhalation: Move the person to fresh air and support breathing as required. If symptoms (wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital for treatment.

Eye Contact: First check the victim for contact lenses and remove if present. Lift eyelids and flush immediately with flooding amounts of water for at least 15 minutes. Do not allow the victim to rub his/her eyes or keep them shut. Consult a physician or ophthalmologist if all material cannot be removed or if there is continuing irritation.

Skin Contact: Remove clothing around affected area. Rinse away loose material and wash affected area with soap and water. If there is a severe skin reaction or reddened or blistered skin, consult a physician and be prepared to transport the victim to a hospital for treatment.

Ingestion: Never give anything by mouth to an unconscious or convulsing person. Contact a poison control center with information from this MSDS and the Technical Data Sheet on the composition of the material ingested. Unless the poison control center advises otherwise, give the person one or two glasses of water, then induce vomiting. After first aid have the person see a physician for follow up care.

Section 5 --- Fire Fighting Measures

Flash Point: 60°F, ASTM Method, D 93 (PM CC)

Autoignition Temperature: None reported

Lower Explosive Limit: 3.3% (v) (ethyl alcohol)

Upper Explosive Limit: 19.9 (v) (ethyl alcohol)

Extinguishing Media: Apply Alcohol-type or all purpose-type foam for large fires. Use carbon dioxide or dry chemical for small fires.

Unusual Fire or Explosion Hazards: During a fire, free phenol and free formaldehyde may be released as well as their combustion products, carbon monoxide and/or carbon dioxide. Vapors form from this product and may travel or be moved by air currents and ignited by pilots lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point. Vapors from this material may settle in low or confined areas or travel a long distance to ignition source and flash back explosively. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Use proper bonding and grounding during product transfer or use of material. Use proper bonding and grounding product transfer as described in National Fire Protection Document NFPA77.

Fire Fighting: Wear a self-contained breathing apparatus (SCBA) with full facepiece operated in the pressure demand or positive pressure mode. Do not allow runoff from fire fighting to enter roadways or sewers. Material may dry out and present additional fire/explosion hazards.

Section 6 --- Accidental Release Measures

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

Section 7 --- Handling and Storage

Handling: Use local exhaust ventilation to avoid breathing in vapors. Avoid skin and eye contact - an eyewash station should be readily available to areas of use. Use safety glasses with sideshields and impervious gloves when handling this material. Keep away from heat, sparks and open flames.

Storage: Store in closed containers, preferably at 35°F, to maintain maximum shelf life. Protect containers from physical damage. Area should be well ventilated to minimize vapor exposure.

Section 8 --- Exposure Controls and Personal Protection

Engineering Control and Ventilation:

Provide local exhaust when possible, and general ventilation as necessary, to keep airborne concentrations below exposure limits and as low as possible. When material is used at elevated temperatures, adequate ventilation must be provided.

Respiratory Protection: Use an NIOSH approved full face-piece respiratory protection equipment where air contaminants exceed acceptable criteria. Use self contained breathing apparatus where extremely high vapor concentrations are presents.

Eye Protection: Safety glasses with side shields or chemical splash goggles must be worn to prevent eye contact. A good safety practice is to have an eyewash station readily available near the work area.

Skin Protection: Use impervious gloves such as neoprene, nitrile, or rubber for hand protection. Chemical resistant apron or coveralls is also recommended. These should be worn one day only if exposed to particulates, and washed before reuse.

Section 9 --- Physical and Chemical Properties

Physical State: Reddish-Brown

Appearance/Odor: Characteristic alcohol odor

Solubility: Negligible

Specific Gravity (H₂O=1): 0.95

Section 10 --- Stability and Reactivity

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

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

Conditions to Avoid: Contamination from other materials.

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

Hazardous Decomposition Products: Under fire conditions polymers decompose. Thermal decomposition of any small amount of binder may produce carbon monoxide and carbon dioxide.

Section 11 --- Toxicological Information

Phenol:

Acute inhalation, mouse - LC₅₀ = 177 mg/m³

Acute dermal, rabbit - LD₅₀ = 630 mg/kg

Formaldehyde (free):

Acute inhalation, cat - LC_{LO} = 400 mg/m³/2 hours

Acute oral, rat - LD₅₀ = 500 mg/kg

Amorphous Silica:

Acute oral, rat - LD₅₀ = 3,160 mg/kg

Acute intravenous, rat - LD₅₀ = 15 mg/kg

Ethyl Alcohol:

Acute inhalation, mouse - LC₅₀ = 39 gm/m³/4 hour

Acute intraperitoneal, rabbit - LD₅₀ = 963 mg/kg

Methyl Isobutyl Ketone:

Acute inhalation, mouse - LC₅₀ = 23,300 mg/m³

Acute oral, guinea pig - LC₅₀ = 1,600 mg/kg

Section 12 --- Ecological Information

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

Section 13 --- Disposal Considerations

Disposal of all waste including containers in accordance with applicable, federal, State and local Environmental regulations.

Section 14 --- Transport Information

DOT Proper Shipping Name: Resin solution, flammable
 Technical Name: Phenolic resin, solvated
 DOT Hazardous Class: 3
 DOT UN/NA Number: UN 1866
 Packaging Group: PG III
 Emergency Response Guide Number: None

Section 15 --- Regulatory Information

Component	CERCLA Hazardous Substance (Section 102)	CERCLA Reportable Quantity (Lbs.)	CWA NPDES Discharge (Section 307(a)	CAA Section 112	SARA Toxic Chemical (40 CFR 372)	SARA Extremely Hazardous Substance (40 CFR 355)
7631-86-9	---	---	---	---	---	---
9003-35-4	---	---	---	---	---	---
108-95-2	X	1,000	X	X	X	X
50-00-0	X	100	X	X	X	X
64-17-5	---	---	---	---	---	---
108-10-1	X	5,000	---	X	X	---
Aliphatic Hydrocarbons	---	---	---	---	---	---

Components listed as OSHA air contaminants are found in Section 2 of this MSDS.

Section 16 --- Other Information

The following chemicals are subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40 CFR 372: Phenol, formaldehyde and methyl isobutyl ketone.

THE ABOVE INFORMATION IS BELIEVED TO BE ACURATE BASED ON THE MOST CURRENT DATA AVAILABLE. AMETEK MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND ASSUMES NO LIABILITY RESULTING FROM ITS USE. USERS ARE ADVISED TO CONDUCT THEIR OWN TEST TO DETERMINE THE SAFETY AND SUITABILITY OF EACH PRODUCT OR PRODUCT COMBINATION FOR THEIR OWN PURPOSES. AMETEK SHALL NOT BE LIABLE FOR ANY CLAIMS, LOSSES OR DAMAGES OF ANY THIRD PARTY OR FOR LOST PROFITS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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