



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: EC-776-SR
MANUFACTURER: 3M
DIVISION: Aerospace Aircraft Maint Division

ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

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Product Use:
Specific Use: COATING

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
METHYL ISOBUTYL KETONE	108-10-1	60 - 100
PHENOLIC RESIN	9039-25-2	7 - 13
ACRYLONITRILE-BUTADIENE POLYMER	9003-18-3	5 - 10
PHENOL	108-95-2	0.5 - 1.5
CRESYLIC ACID	1319-77-3	0.1 - 1.0

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Odor, Color, Grade: low viscosity, red, strong MIBK odor

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back. May cause severe eye irritation. May cause target organ effects.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Severe Eye Irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Skin Contact:

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

May be absorbed through skin and cause target organ effects.

Inhalation:

Upper Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, nausea, diarrhea and vomiting.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause:

Liver Effects: Signs/symptoms may include loss of appetite, weight loss, fatigue, weakness, abdominal tenderness and jaundice.

Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness and tremors.

Kidney Effects: Signs/symptoms may include reduced or absent urine production, increased serum creatinine, lower back pain, increased protein in urine, and increased blood urea nitrogen (BUN).

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

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

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	840 °F [<i>Test Method:</i> Estimated]
Flash Point	64.00 °F [@ 1 atm] [<i>Test Method:</i> Closed Cup]
Flammable Limits - LEL	1.20 % volume [@ 200 °C] [<i>Test Method:</i> Estimated]
Flammable Limits - UEL	8.0 % volume [@ 200 °F] [<i>Test Method:</i> Estimated]

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Flammable liquid and vapor. Closed containers exposed to heat from fire may build pressure and explode. Vapors may travel long distances along the ground or floor to an ignition source and flash back.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Cover spill area with a fire-extinguishing foam. An aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a toxic, corrosivity or flammability hazard. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with detergent and water. Seal the container. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat,

sparks, open flame, pilot lights and other sources of ignition. Ground containers securely when transferring contents. Wear low static or properly grounded shoes. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Avoid breathing of vapors created during cure cycle. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. For industrial or professional use only. Avoid contact with oxidizing agents.

7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container in well-ventilated area. Keep container tightly closed. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Provide local exhaust ventilation at transfer points. Provide appropriate local exhaust ventilation on open containers. Use with functioning spray booth or local exhaust. Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

8.2.2 Skin Protection

Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Butyl Rubber, Polyethylene/Ethylene Vinyl Alcohol.

8.2.3 Respiratory Protection

Avoid breathing of vapors, mists or spray. Avoid breathing of vapors created during cure cycle.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece air-purifying respirator with organic vapor/acid gas cartridges and P95 particulate prefilters, Half facepiece air-purifying respirator with organic vapor/acid gas cartridges and N95 particulate prefilters, Half facepiece air-purifying respirator with organic vapor/acid gas cartridges and P100 particulate prefilters, Half facepiece or fullface air-purifying respirator with organic vapor cartridges. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
CRESYLIC ACID	ACGIH	TWA	5 ppm	Skin Notation*
CRESYLIC ACID	OSHA	TWA	5 ppm	Skin Notation*; Table Z-1
METHYL ISOBUTYL KETONE	ACGIH	TWA	50 ppm	
METHYL ISOBUTYL KETONE	ACGIH	STEL	75 ppm	
METHYL ISOBUTYL KETONE	OSHA	TWA, Vacated	50 ppm	
METHYL ISOBUTYL KETONE	OSHA	STEL, Vacated	75 ppm	
METHYL ISOBUTYL KETONE	OSHA	TWA	100 ppm	Table Z-1
PHENOL	ACGIH	TWA	5 ppm	Skin Notation*; Table A4

PHENOL

OSHA

TWA

5 ppm

Skin Notation*; Table Z-1

* Substance(s) refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Odor, Color, Grade:

low viscosity, red, strong MIBK odor

General Physical Form:

Liquid

Autoignition temperature

840 °F [*Test Method*: Estimated]

Flash Point

64.00 °F [*@ 1 atm*] [*Test Method*: Closed Cup]

Flammable Limits - LEL

1.20 % volume [*@ 200 °C*] [*Test Method*: Estimated]

Flammable Limits - UEL

8.0 % volume [*@ 200 °F*] [*Test Method*: Estimated]

Boiling point

244.00 °F [*@ 1 atm*] [*Test Method*: Estimated] [*Details*:

CONDITIONS: (MIBK)]

Density

7.2 lb/gal [*@ 20 °C*]

Vapor Density

Approximately 3.5 Units not avail. or not appl. [*Ref Std*: AIR=1]

Vapor Pressure

16.0000 mmHg [*@ 20 °C*] [*Test Method*: Estimated]

Specific Gravity

0.860 [*Ref Std*: WATER=1]

pH

Not Applicable

Melting point

No Data Available

Solubility In Water

No Data Available

Solubility in Water

Negligible

Evaporation rate

Approximately 4 Units not avail. or not appl. [*Ref Std*: ETHER=1]

Hazardous Air Pollutants

Approximately 78 % weight

Volatile Organic Compounds

Approximately 670 g/l [*Test Method*: South Cost Air Qual Mgmt Dist] [*Details*: CONDITIONS: Rules 443.1, calculated]

Percent volatile

Approximately 78 % weight

VOC Less H2O & Exempt Solvents

Approximately 670 g/l [*Test Method*: South Cost Air Qual Mgmt Dist] [*Details*: CONDITIONS: Rule 443.1, calculated]

Viscosity

300 - 700 centipoise

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Strong oxidizing agents; Sparks and/or flames

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance

Hydrocarbons
Carbon monoxide
Carbon dioxide
Oxides of Nitrogen

Condition

During Combustion
During Combustion
During Combustion
During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Reclaim solvent if feasible. Incinerate uncured product in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

62-1541-6504-7, 62-1541-6540-1, 62-1541-8504-5, 62-1541-8540-9, 62-1541-9504-4, 62-1541-9540-8

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
METHYL ISOBUTYL KETONE	108-10-1	60 - 100
PHENOL	108-95-2	0.5 - 1.5

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
METHYL ISOBUTYL KETONE	108-10-1	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS.

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

WHMIS: Hazardous

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification**Health: 2 Flammability: 3 Reactivity: 0 Special Hazards: None**

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

No revision information is available.

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