



# **FIRE Retardants Inc.**<sup>TM</sup>

*The Decision You Make May Save A Life!*

123 Columbia Court North • Suite 201 • Chaska, MN 55318

**952-448-7377 • FAX: 952-448-2613**

Fire Retardant "HOT LINE" 1-800-913-9385

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Visit Our Web Site at [www.fireretardantsinc.com](http://www.fireretardantsinc.com)

## **MATERIAL SAFETY DATA SHEET FOR COATINGS, RESINS, AND RELATED MATERIALS**

DATE OF PREP: September 26, 2002

### **SECTION I**

**EMERGENCY TELEPHONE NUMBER: 800-535-5053** (for emergency info only)

**PRODUCT CLASS:** Varnish

**MANUFACTURER'S CODE IDENTIFICATION:**  
No. 6 Clear Wood Sealer

### **SECTION II – HAZARDOUS INGREDIENTS**

<b>INGREDIENT</b>	<b>Percent</b>	<b>ACGIH TLV PPM</b>	<b>OSHA PEL PPM</b>	<b>IEL</b>	<b>Vapor Pressure</b>
*) Aromatic Petroleum Distillates CAS 64742-95-6	49-54	NE	100	1	2.6
*) 2-Propoxyethanol CAS 2807-30-9	37-42	NE	NE	1.26	1.3
*) See section X					

### **SECTION III**

### **PHYSICAL DATA**

Boiling Range: 301-3335F  
Evaporation Rate: Slower than ether  
Weight Per Gallon: 7.5 lbs.

Vapor Density: Heavier than air  
Percent Volatile by Volume: 93  
V.O.C. 7.0 lbs./gl. (840 g/L)

### **SECTION IV**

### **FIRE AND EXPLOSIVE HAZARD DATA**

DOT CATEGORY: Varnish  
Combustible liquid UN 1263

FLASH POINT; 110F (43C) Closed Cup  
LEL: 1.0

#### **Hazardous Products of Combustion:**

May form: Carbon dioxide and carbon monoxide, various hydrocarbons.

#### **Fire and Explosion Hazards:**

- ) Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at ignition distant from material handling point.

**Hazardous Products of Combustion:** Regular foam, carbon dioxide, dry chemical.



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## **MATERIAL SAFETY DATA SHEET FOR COATINGS, RESINS, AND RELATED MATERIALS**

DATE OF PREP: June 02, 2003

### **SECTION I**

**EMERGENCY TELEPHONE NUMBER: 800-535-5053** (for emergency info only)

**PRODUCT CLASS:** Varnish

**MANUFACTURER'S CODE IDENTIFICATION:**

No. 166 Class "A" Fire Retardant

Intumescent Varnish

### **SECTION II – HAZARDOUS INGREDIENTS**

<b>INGREDIENT</b>	<b>Percent</b>	<b>ACGIH TLV PPM</b>	<b>OSHA PEL PPM</b>	<b>LEL</b>	<b>Vapor Pressure</b>
*) Aromatic Petroleum Distillates CAS 64742-95-6	36-41	NE	NE	1	3.0
*) See section X					

### **SECTION III**

### **PHYSICAL DATA**

Boiling Range: 308-335F  
Evaporation Rate: Slower than ether  
Weight Per Gallon: 9.6 lbs.

Vapor Density: Heavier than air  
percent Volatile by Volume: 52  
V.O.C. 4.1 lbs./gl. (491 g/L)

### **SECTION IV**

### **FIRE AND EXPLOSIVE HAZARD DATA**

DOT CATEGORY: Varnish  
Combustible liquid UN 1263

FLASH POINT; 105F (40.6C) Closed Cup  
LEL: 1

#### **Hazardous Products of Combustion:**

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

#### **Fire and Explosion Hazards:**

Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point.

**EXTINGUISHING MEDIA:** Regular foam, carbon dioxide, dry chemical.

#### **Fire Fighting Instructions:**

Wear a self-contained breathing apparatus with a full-face piece operated in the positive pressure demand mode with appropriate turnout gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

**SECTION V**      **HEALTH HAZARD DATA**

Potential Health Effects

**THRESHOLD LIMIT VALUE:** See Section II and X.

**Eyes:** \*) Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

**Skin:** \*) Can cause skin irritation. Repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

**Swallowing:** \*) Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

**Inhalation:** \*) Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section X).

**SYMPTOMS OF EXPOSURE:**

\*) Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the materials through the skin may include: Stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) temporary changes in behavior, muscle weakness, mild, temporary changes in the liver, respiratory depression (slowing of the breathing rate), shortness of breath, narcosis (dazed or sluggish feeling), respiratory failure, coma.

**Target Organ Effects:**

\*) This material (or a component) has been shown to lower activity of certain immune system cells in experimental animals. The significance of this effect with respect to human health is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals; blood abnormalities, cardiac sensitization, liver abnormalities, cataracts, kidney damage, effects on hearing, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: liver abnormalities.

**Developmental Information:**

\*) This material (or a component) has been shown to cause birth defects in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. Cumene did not cause harm to the unborn pup in laboratory animal studies, even at levels which were harmful to the pregnant animal.

**Cancer Information:**

\*) Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research On Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects: \*) No data

Primary Route(s) of Entry:

\*) Inhalation, skin absorption, skin contact, eye contact, ingestion.

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**SECTION VI                      FIRST AID MEASURES**

**Eyes:** \*) If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

**Skin:** \*) Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

**Swallowing:** \*) Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

**Inhalation:** \*) If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

**Note to Physicians:** \*) Inhalation of high concentration of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section V Swallowing) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lungs (for example, asthma-like conditions), liver, kidney, blood-forming system, immune system, auditory system, eyes, individuals with preexisting heart disorders may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

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## SECTION V11 ACCIDENTAL RELEASE MEASURES

**Small Spill:** Absorb liquid with vermiculite, floor absorbent, or other absorbent material. Transfer to suitable container and dispose of in accordance with federal, state, and local requirements.

**Large Spill:** Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to containers. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal in accordance with federal, state, and local requirements. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

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## SECTION VIII HANDLING AND STORAGE

Handling: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five-gallon pails and larger metal containers, should be grounded and/or bonded when material is transferred. Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquid. Warning: Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

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## SECTION IX EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eye Protection:** Chemical splash goggles in compliance with OSHA regulations are advised: However, OSHA regulations also permit other type safety glasses. Consult your safety representative.

**Skin Protection:** Wear resistant gloves (consult your safety equipment supplier). To prevent repeated skin contact, wear impervious clothing and boots.

**Respiratory Protection:** If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines Section II and X), a NIOSM/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist) Engineering or administrative controls should be implemented to reduce exposure.

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**Engineering Controls:** Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s), See Section 11 and X.

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**SECTION X      SARA AND OTHER HEALTH INFORMATION**

**SARA TITLE III:**

Under the provisions of Title III, Section 311/312 of the Superfund Amendments and Reauthorizations Act, this product is classified into the following hazard categories;

**Delayed Health, Fire.**

This information may be subject to the provisions of the Community right-to-know Reporting Requirements (40 CFR 370) if threshold quantity criteria are met. This product contains the following Section 313 Reportable ingredients;

	<u>CAS NO.</u>	<u>MAXIMUM</u>	<u>ACGIH TLV</u> <u>PPM</u>	<u>OSHA PEL</u> <u>PPM</u>
<b>Glycol Ether</b>	None	42.0	NE	NE
<b><u>COMPONENTS of CAS 64742-95-6</u></b>				
1, 2, 4-Trimethylbenzene	95-63-6	42.0	NE	NE
1, 3, 5-Trimethylbenzene	108-67-8	11.0	NE	NE
Diethylbenzene	25340-17-4	5.0	NE	NE
Xylene	1330-20-7	3.0	100	100
Isopropylbenzene	98-82-8	2.0	50	50 (skin)

**HARZARD RATING SYSTEM:**

\*) This information is for people trained in:

National Paint & Coatings Association's (NPCA) Hazardous Materials Identification System (HMIS).

National Fire Protection Association (NFPA 704) Identification of the Fire Hazards of Materials.

	<u>NPCA-HMIS</u>	<u>NFPA 704</u>	<u>KEY</u>
HEALTH	1	1	4 = Severe
FLAMMABILITY	2	2	3 = Serious
REACTIVITY	0	0	2 = Moderate
			1 = Slight
			0 = Minimal

**SECTION XI      REACTIVITY DATA**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Excessive heat, sparks, open flame.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Oxidizing materials can cause a reaction.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition in the presence of air may yield carbon monoxide and/or carbon dioxide.

**HAZARDOUS POLYMERIZATION:** Will not occur

\*) No Data

**SECTION XII      TOXICOLOGICAL INFORMATION**

\*) No Data

**SECTION XIII      ECOLOGICAL INFORMATION**

**SECTION XIV      DISPOSAL CONSIDERATION**

Waste Management Information: Dispose in accordance with all applicable local, states and federal regulations.

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**SECTION XV      REGULATORY INFORMATION**

**State and Local Regulations**

California Proposition 65 (the California Safe Drinking Water and Toxic Enforcement Act of 1986)

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects, or other reproductive harm.

New Jersey RTK Label Information

PSEUDOCUMENE	95-63-6
1, 3, 5-TRIMETHYLBENZENE	108-67-8
XYLENE	1330-20-7
CUMENE	98-82-8

Pennsylvania RTK Label Information

PSEUDOCUMENE	95-63-6
BENZENE, (1-METHYLETHYL)-	98-82-8

\*) Aromatic Petroleum Distillates CAS 64742-95-6

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Toxic Substances Control Act (TSCA) Inventory Status;

All materials are listed on the EPA TSCA Inventory of Chemical Substances.

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The information contained herein is based on the data available to us and is believed to be correct. However we make no warranty expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof. Fire Retardants Inc. assumes no responsibility for injury from the use of the product described herein.

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## **MATERIAL SAFETY DATA SHEET FOR COATINGS, RESINS, AND RELATED MATERIALS**

DATE OF PREP: November 12, 2003

### **SECTION I**

**EMERGENCY TELEPHONE NUMBER: 800-535-5053** (for emergency info only)

**PRODUCT CLASS:** Varnish

**MANUFACTURER'S CODE IDENTIFICATION:**

No. 167 Class "A" Low-Gloss Fire

Retardant Varnish Overcoat for No. 166

### **SECTION II – HAZARDOUS INGREDIENTS**

<b>INGREDIENT</b>	<b>Percent</b>	<b>ACGIH TLV PPM</b>	<b>OSHA PEL PPM</b>	<b>LEL</b>	<b>Vapor Pressure</b>
Mineral Spirits CAS 64742-88-7	51-56	NE*	NE*	1.1	2.0
Calcined Siliceous Earth CAS 68855-54-9	5-10	NE	NE	NA	NA
The above product may contain up to 63% cristobalite CAS 14464-46-1 (Crystalline Silica)		0.05 mg/m3 (RESPIRABLE CRISTOBALITE)	0.05 mg/m3 (RESPIRABLE CRISTOBALITE)		
Antimony Oxide CAS 1314-60-9	1.3	NE	0.5 mg/m3 as Sb	NA	NA
*(Stoddard Solvent		100	100)		

### **SECTION III**

### **PHYSICAL DATA**

Boiling Range: 318-386F  
Evaporation Rate: Slower than ether  
Weight Per Gallon: 7.8 lbs.

Vapor Density: Heavier than air  
Percent Volatile by Volume: 67  
V.O.C. 4.4 lbs./gl. (527 g/L)

### **SECTION IV**

### **FIRE AND EXPLOSIVE HAZARD DATA**

DOT CATEGORY: Paint  
Combustible liquid UN 1263  
HMIS INDEX: H=2, F=2, R=0

FLASH POINT; 100F (37.8C) Closed Cup  
LEL: 0.7

**EXTINGUISHING MEDIA:**

Foam, carbon dioxide, dry chemical.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

This material is combustible and may be ignited by heat, sparks, flame and static electricity.

**SPECIAL FIRE FIGHTING PROCEDURES:**

Water not ordinarily effective, solid hose streams tend to spread fire.

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**SECTION V****HEALTH HAZARD DATA**

**THRESHOLD LIMIT VALUE:** Section II

**EFFECTS OF OVEREXPOSURE:**

Irritating to eyes, defatting to skin; rated slight irritant.

**Notice:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the vapors may be harmful or fatal. Medical conditions which may be aggravated: Pre-existing upper respiratory and lung disease such as, but not limited to bronchitis, emphysema, asthma.

**Chronic Health Effect:** Crystalline silica has been classified as carcinogenic for humans (1) by IARC. It has not been classified as a carcinogen by NTP or OSHA. Crystalline silica is also a known cause of silicosis, a noncancerous lung disease caused by excessive exposure to crystalline silica.

**Primary Entry Route(s):** Inhalation.

**EMERGENCY AND FIRST AID PROCEDURES:**

Remove from further exposure, flush affected skin area with water or mild soap and water, flush eyes with gentle stream of water. See a doctor.

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**SECTION VI****REACTIVITY DATA**

**STABILITY:** Stable

**CONDITIONS TO AVOID:** Excessive heat, sparks, open flame.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Strong acids or bases, oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition in the presence of air may yield carbon monoxide and/or carbon dioxide.

**HAZARDOUS POLYMERIZATION:** Will not occur.

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**SECTION VII****SPILL OR LEAK PROCEDURES****STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Wipe up immediately and discard saturated absorbents. In event of large spills, dike area and pump material into waste tank, remove any source of ignition, avoid breathing of vapors.

**WASTE DISPOSAL METHOD:** Dispose of in accordance with local, state and federal regulations.

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**SECTION VIII      SPECIAL PROTECTION INFORMATION**

**RESPIRATORY PROTECTION:**

Self contained breathing equipment, air respirator or air mask where there is an oxygen deficiency.

**VENTILATION:**

Local Exhaust: Explosion proof type.

**PROTECTIVE CLOVES:** Yes

**EYE PROTECTION:** Chemical safety goggles or face shield.

**OTHER PROTECTIVE EQUIPMENT:** All motors and switches should be explosion proof.

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**SECTION IX      SPECIAL PRECAUTIONS:**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:**

Material is classified as a combustible liquid. Keep away from heat and open flame. Use with adequate ventilation. Avoid contact with skin. Do not store at temperatures above 100F.

**OTHER PRECAUTIONS:** Avoid skin contact and breathing of vapors and sanding dust. Use with adequate ventilation.

**Section 313 Supplier Notification**

This product contains the following toxic chemicals 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:

CAS #	Chemical Name	Percent by Weight
1314-60-9	Antimony Oxide	1-3

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Toxic Substances Control Act (TSCA) Inventory Status;  
All materials are listed on the EPA TSCA Inventory of Chemical Substances.

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