

## Fluorothane™ MS (1.01)

**DESCRIPTION:** Fluorothane™ MS is a fluorourethane-alkyd formulated for spray, brush or roll application. Coatings have excellent UV, weather and pollution resistance and can be expected to maintain 150° contact angles to heavy rain for 10 years or more.

**DIRECTIONS:** Surface should be clean, dry and free of oils and detergents. Priming metal or plastic surfaces with uv resistant acrylics or polyurethane-alkyds is recommended. Two-part gel coats and solvent resistant plastics should be lightly sanded. Check lid for tightness and then shake product vigorously for 60 seconds just prior to use. Strain through a 100 mesh seive if lumps are visible. Spray coating at a gun distance and speed so as to just cover the surface. Do not try to "build" the coating for a wet or visible edge. Use gravity-feed HVLP set at full fan and 1 to 1.5 turns feed, with 10-50% overlap at 35 to 40 psi (dynamic at pump), a gun distance of 6 to 8 inches and a rate of 6 to 12 inches per second is optimal. Spray pattern for a single pass should coat a 4 to 5 inch wide strip. Agitate coating in gun reservoir every few minutes. Large external reservoirs should have continuous mixing. After drying, the coating should appear as a barely visible translucent frost. Coverage is about 400 square feet per gallon depending on percent overlap and degree of dispersion. Clean up immediately with petroleum distillates. Cover stored product with nitrogen if possible and keep container tightly closed in cool dry location out of direct sunlight. Shelf life of unopened product is 3 to 6 months. Coating will be light rain resistant upon drying, will be substantially cured after 24 hours in 70°F open air, and full coating properties will be developed in 7 to 10 days. Exposure to uv and heat (140°F) will facilitate cure. If heavy rain is expected within 24 hours, cover loosely with polyethylene film. For best rain performance, avoid touching or abraiding active surface. Improperly applied coatings may not be hydrophobic or may not be resistant to rain erosion.

**CONTAINS:** Fluoro-Polymers, Fluoro-Compounds, Petroleum Distillates.

**CAUTION: MAY IRRITATE SKIN OR MUCOUS MEMBRANES.**

**KEEP OUT OF REACH OF CHILDREN. DO NOT BREATHE  
DECOMPOSITION PRODUCTS RESULTING FROM EXPOSURE TO  
TEMPERATURES ABOVE 300° C. DO NOT SMOKE WHILE  
APPLYING THIS MATERIAL.**

Patents 6,037,168, 5,989,490, 5,853,894, 5,503,803, 5,200,152 Issued &  
Others Pending. FluoroPel, PerFluoroCoat, PFC, Fluorothane, FluorN,

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### INGREDIENTS

| 1. NON-HAZARDOUS INGREDIENT | WT % | CAS NO.     | ACCIH-TLV<br>PPM | OSHA-PEL<br>PPM |
|-----------------------------|------|-------------|------------------|-----------------|
| Fluorourethane Alkyd        | ~6   | PROPRIETARY | NE               | NE              |
| Fluoro -Compounds           | ~20  | PROPRIETARY | NE               | NE              |
| 2. HAZARDOUS INGREDIENT     | WT % | CAS NO.     | ACCIH-TLV        | OSHA-PEL        |
| Petroleum Distillates       | ~74  | 8032-32-4   | 300              | 350             |

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. As defined by 16 CFR 1500.3, 1500.41 and 1500.42, unlisted materials, such as pigments, fillers and catalysts, are classified as non-hazardous. The volatile components of the Fluoro-Compounds are VOC exempt per Federal Register August 25, 1997 [Volume 62, Number 164].

### PHYSICAL DATA

|                       |                  |                  |                 |
|-----------------------|------------------|------------------|-----------------|
| INITIAL BOILING POINT | ~70° C           | VAPOR PRESSURE   | ~10 mm Hg       |
| VAPOR DENSITY         | > AIR            | EVAPORATION RATE | > Butyl Acetate |
| SOLUBILITY IN WATER   | nil              | SPECIFIC GRAVITY | ~0.85           |
| VOC                   | 74 %             | VISCOSITY        | ND              |
| APPEARANCE            | White Suspension | ODOR             | petroleum       |

### FIRE AND EXPLOSION HAZARD DATA

|                                 |  |
|---------------------------------|--|
| FLASH POINT                     | ~60°F  |
| AUTO IGNITION TEMP.             | ND   |
| FLAMMABILITY LIMITS             | ND   |
| EXTINGUISHING MEDIA             | WATER, FOAM, CO <sub>2</sub> , DRY CHEMICAL  |
| UNUSUAL HAZARDS                 | Thermal decomposition above 300° C may produce dangerous halogenated products, including HF.   |
| STABILITY                       | Stable at room temperature. Hazardous polymerization will not occur.   |
| INCOMPATIBILITY                 | Amines, acids, bases, and chemically active metals(Ca, Zn, etc.)   |
| SPECIAL FIREFIGHTING PROCEDURES | - Do not enter fire area without proper protection.<br>Fight fire from safe distance/protected location. Use water spray/fog for cooling.<br>The use of self-contained breathing apparatus is recommended for fire fighters. |

### HEALTH HAZARDS

**EYES:** Eye contact may cause redness and swelling and may include sever irritation.

**SKIN:** Skin contact may cause redness and swelling and may include sever irritation.

**INHALATION:** Gross overexposure may cause suffocation, if air is displaced by vapor. Repeated or excessive overexposure may cause central nervous system stimulation, headache, sleeplessness, tremors, convulsions and unconsciousness.

**INGESTION:** May be harmful if swallowed.

**CARCINOGENS:** NONE KNOWN TO BE PRESENT

### PROTECTIVE EQUIPMENT & CONTROL MEASURES

|                            |   |
|----------------------------|---|
| <b>EYES</b>                | Eye protection such as chemical splash goggles and/or face shield should be worn.   |
| <b>SKIN</b>                | Wear gloves and splash protection.  |
| <b>INHALATION</b>          | At elevated temperatures NIOSH/MSHA approved respiratory protection equipment should be used. <b>DO NOT SMOKE WHILE USING THIS PRODUCT.</b> |
| <b>ENGINEERING HYGIENE</b> | Aerosol/vapor generation require adequate exhaust ventilation.<br>Wash hands thoroughly before eating, drinking or smoking.                 |

### SUGGESTED FIRST AID

|                   |  |
|-------------------|--|
| <b>EYES</b>       | Flush with plenty of water. Call a physician.  |
| <b>SKIN</b>       | Wash affected area with soap and water.  |
| <b>INHALATION</b> | If overcome by exposure to decomposition products, remove to fresh air.<br>Call a physician immediately. |
| <b>INGESTION</b>  | Call a physician or poison control. <b>DO NOT INDUCE VOMITING.</b>                                       |

### SPILL AND DISPOSAL

Impound/extinguish all ignition sources or blanket with fire-fighting foam. On land, collect with inert absorbant. On water, contain, minimize dispersion and collect. Ventilate area. Avoid breathing vapors. Report per regulatory requirements. Dispose in accord with applicable local, state and federal regulations.

### DISCLAIMERS

Some of the information presented and conclusions drawn herein are from sources other than direct test data on the product itself. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. This MSDS has been prepared in accordance with the requirements of the OSHA HAZARD COMMUNICATION SYSTEM (29 CFR 1200).