MIS092

HILLSBORO ELEMENTARY SCHOOLS
215 S.E. 6th Ave.
HILLSBORO, OR 97123

MATERIAL SAFETY DATA SHEET SC 0006

56/20672

IDENTIFICATION

Issued: September 19, 1990

PRODUCT NAME: Supreme Products/ Duplicating Fluid Type III
CHEMICAL NAME: Methanol
CHEMICAL FAMILY: Alcohol
SYNONYMS: Methyl alcohol; carbinol; monohydroxymethane; methyl hydroxide.

FORMULA: CH_3OH
MOLECULAR WEIGHT: 32
CAS NUMBER: 67-56-1
CAS NAME: Methanol

DEPARTMENT OF TRANSPORTATION INFORMATION
HAZARD CLASSIFICATION: Flammable Liquid
SHIPPING NAME: Methanol

Emergency Telephone No. 1-800-424-9300
UNITED NATIONS NUMBER: UN 1230
DOT EMERGENCY RESPONSE GUIDE NUMBER: 28

PHYSICAL DATA

BOILING POINT (760 mm Hg): 64.6°C (148°F)
SPECIFIC GRAVITY (H_2O = 1 @ 20/20°C): 0.7925
VAPOR DENSITY (AIR = 1 @ 20°C): 1.11
PERCENT VOLATILES BY VOLUME: 100
APPEARANCE AND ODOR: Clear, colorless, mobile liquid with mild alcohol odor.

FREEZING POINT: -97.8°C (-144°F)
VAPOR PRESSURE (20°C): 96.0 mm Hg
SOLUBILITY IN WATER (% by WT @ 20°C): Complete
EVAPORATION RATE (BuAc = 1): 2.0

HAZARDOUS INGREDIENTS: Methanol, 99.85%

FIRE AND EXPLOSION HAZARD DATA

FLAMMABLE LIMITS IN AIR, % BY VOLUME: Upper: 36.5, Lower: 5.5

FLASH POINT (TEST METHOD):
TAG OPEN CUP (ASTM D1310): 60°F (15°C)
TAG CLOSED CUP (ASTM 056): 54°F (12°C)

SPECIAL HAZARD DESIGNATIONS

	HMIS	NFPA
HEALTH:	3	1
FLAMMABILITY:	3	3
REACTIVITY:	0	0
PROTECTIVE EQUIPMENT:	SC	--

KEY: 0 - Minimal, 1 - Slight, 2 - Moderate, 3 - Serious, 4 - Severe

OSHA 29CFR1910.1200 EVALUATION: Hazardous

EXTINGUISHING MEDIA: Use CO_2 or dry chemical for small fires, alcohol-type aqueous film-forming foam or water spray for large fires. Water may be ineffective but should be used to cool fire-exposed structures and vessels.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus (SCBA) and complete personal protective equipment when potential for exposure to vapors or products of combustion exists. Water spray can be used to reduce intensity of flames and to dilute spills to nonflammable mixture.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapor is heavier than air and can travel considerable distance to a source of ignition and flashback. Material can burn with little or no visible flame.

REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Heat, sparks, flame.

MATERIALS TO AVOID: Sulfuric acid; oxidizing agents such as hydrogen peroxide, nitric acid, perchloric acid and chromium trioxide.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Carbon monoxide.

HEALTH DATA

PERMISSIBLE EXPOSURE LIMITS

OSHA STANDARD: 200 ppm, 8-hr TWA

ACGIH TLV®: 200 ppm, 8-hr TWA; 250 ppm, STEL; potential contribution to overall exposure possible via skin absorption.

IMMEDIATELY DANGEROUS TO LIFE AND HEALTH LEVEL: 25,000 ppm

EFFECTS OF EXPOSURE/TOXICITY DATA

ACUTE

INGESTION (SWALLOWING): Poisonous if swallowed. Can affect the optic nerve resulting in blindness. Can cause mental sluggishness, nausea and vomiting leading to severe illness, possibly death (in humans). Practically non-toxic to animals (oral LD50, rats: 7.5 g/kg).

INHALATION (BREATHING): Extremely high levels cause stupor, headache, nausea, dizziness and unconsciousness. Practically non-toxic to animals (inhalation LC50, rats, 4 hrs: 64,000 ppm).

SKIN CONTACT: Essentially non-irritating. Repeated or prolonged contact causes drying, brittleness, cracking and irritation. Slightly toxic to animals by absorption (dermal LD50, rabbits: 20 g/kg).

EYE CONTACT: May cause eye injury which may persist for several days. Liquid, and vapor in high concentrations, causes irritation, tearing and burning sensation.

CHRONIC

MUTAGENICITY: In vitro, limited evidence of mutagenicity (mouse lymphoma forward mutation assay) In vivo, no information.

CARCINOGENICITY: No evidence of carcinogenicity to mice in two limited skin-painting studies and one oral study.

REPRODUCTION: No information.

EMERGENCY AND FIRST AID PROCEDURES

INGESTION (SWALLOWING): Induce vomiting of conscious patient immediately by giving two glasses of water and pressing finger down throat. Contact a physician immediately.

INHALATION (BREATHING): Remove patient from contaminated area. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact a physician immediately.

SKIN CONTACT: Remove contaminated clothing and wash contaminated skin with large amounts of water. If irritation persists, contact a physician.

EYE CONTACT: Flush eyes with water for at least 15 minutes. Contact a physician immediately.

NOTE TO PHYSICIAN: When plasma methanol concentrations are higher than 20 milligrams per deciliter, when ingested doses are greater than 30 milliliters, and when there is evidence of acidosis or visual abnormalities, a 10% solution of ethanol in 5% aqueous dextrose, administered intravenously, is a safe, effective antidote (Western Journal of Medicine, March 1985, p. 337).

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Eliminate ignition sources. Avoid eye or skin contact. Place leaking containers in well-ventilated area. If fire potential exists, blanket spill with foam or use water spray to disperse vapors. Contain spill to minimize contaminated area and facilitate salvage or disposal. To clean up spill, flush area sparingly with water or use an absorbent. Avoid runoff into storm sewers and ditches which lead to natural waterways. Call the National Response Center (800-424-8802) if spill is equal to or greater than reportable quantity (5000 lb/day) under "Superfund". All clean-up and disposal should be carried out in accordance with federal, state and local regulations. If required, state and local authorities should be notified.

WASTE DISPOSAL METHOD: This product when spilled or disposed is a hazardous solid waste as defined in Resource Conservation Recovery Act regulations (40CFR261). Preferred method is incineration or biological treatment in federal/state approved facility.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use full-face NIOSH-approved self-contained breathing apparatus (SCBA) or other air-supplying full-face respirator.

VENTILATION

LOCAL EXHAUST: Recommended when appropriate to control employee exposure.

MECHANICAL (GENERAL): Not recommended as the sole means of controlling employee exposure.

PROTECTIVE GLOVES: Neoprene or rubber. EYE PROTECTION: Chemical safety goggles.

OTHER PROTECTIVE EQUIPMENT: For operations where spills or splashing can occur, use impervious body covering and boots. A safety shower and eye bath should be available.

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a cool, well-ventilated area. Do not expose to temperatures above 49°C (120°F). Keep away from heat, sparks and flame. Keep containers closed. Use only DOT-approved containers. Use spark-resistant tools. Do not load into compartments adjacent to heated cargo. When transferring follow proper grounding procedures. Use with adequate ventilation. Provide emergency exhaust. Avoid breathing vapor. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use. Discard contaminated leather clothing.