MATERIAL SAFETY DATA SHEET

MANUFACTURER OR DISTRIBUTOR: M. Grumbacher, Inc.

Three Englehard Dr.

Cranbury NJ 08512

INFORMATION TELEPHONE NUMBER: 609-655-8282

EMERGENCY TELEPHONE NUMBER: 800-346-3278

------ SECTION I - PRODUCT IDENTIFICATION --------

PRODUCT NAME: GRUMTINE PRODUCT NO. 538

PRODUCT SIZES: 74, 236, 473, 946 ML

PRODUCT CLASS: SOLVENT

PEL/TLV MAX INGREDIENT CAS# (MG/M3) %WEIGHT NTP IARC D-LIMONENE 5989-27-5 N/A 100.0000 N

----- SECTION III - PHYSICAL AND CHEMICAL CHARACTERISTICS ------

BOILING POINT: 176°C

VAPOR PRESSURE: 1.2 @ 20 °C

SOLUBILITY IN WATER: INSOLUBLE

SPECIFIC VAPOR DENSITY (AIR=1): 4.7 SPECIFIC GRAVITY: 0.838 - 0.843
SOLUBILITY IN WATER: INSOLUBLE REACTIVITY IN WATER: NON-REACTI

MELTING POINT: N/A

REACTIVITY IN WATER: NON-REACTIVE

APPEARANCE AND ODOR: CLEAR PALE STRAW LIQUID WITH CITRUS ODOR.

------ SECTION IV - FIRE AND EXPLOSION INFORMATION ------

FLASH POINT (METHOD): 115°F TCC AUTOIGNITION TEMPERATURE: N/A EXPLOSION LIMITS IN AIR (% BY VOLUME): NOT EXPLOSIVE EXTINGUISHING MEDIA: NO SPECIAL MEDIA REOUIRED FIRE FIGHTING PROCEDURES: NO SPECIAL FIRE FIGHTING PROCEDURES REQUIRED UNUSUAL FIRE & EXPLOSION HAZARDS: COMBUSTIBLE.

HAZARDOUS POLYMERIZATION PRDUCTS: NONE

STABILITY: STABLE CONDITIONS TO AVOID: NONE

IMCOMPATIBILITY (MATERIALS TO AVOID): NONE

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

COMPANY: M. Grumbacher, Inc. PRODUCT: 538 BRAND NAME: GRUMTINE ------ SECTION VI - HEALTH HAZARD DATA -----------PERMISSIBLE EXPOSURE LEVEL: SEE SECTION II FOR COMPONENT PEL/TLVs PRIMARY ROUTES OF ENTRY: EFFECTS AND SYMPTOMS OF ACUTE EXPOSURE: MAY BE HARMFUL IF SWALLOWED. EFFECTS AND SYMPTOMS OF CHRONIC EXPOSURE: EXPOSURE MAY CAUSE DAMAGE TO THE KIDNEYS. CARCINOGEN LISTING: NTP: NO IARC: NO OSHA: NO SEE SECTION II FOR COMPONENTS AFFECTED MEDICAL CONDITIONS USUALLY AGGRAVATED BY OVER EXPOSURE TO THIS PRODUCT: KIDNEY DISEASE. FIRST AID MEASURES: NONE REQUIRED. NO ACUTE HEALTH EFFECTS EXPECTED. ----- SECTION VII - SPILL OR LEAK PROCEDURES --------PRECAUTIONS TO BE TAKEN DURING STORAGE AND HANDLING: Do not store or use near heat or flame. KEEP OUT OF REACH OF CHILDREN. STEPS TO BE TAKEN IN CASE A MATERIAL IS SPILLED: NO SPECIAL SPILL PROCEDURES REQUIRED. WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. ----- SECTION VIII - PROTECTIVE EQUIPMENT/CONTROL MEASURES ------RESPIRATORY PROTECTION AND SPECIAL VENTILATION REQUIREMENTS: Avoid breathing vapors by assuring adequate cross ventilation. OTHER PROTECTIVE EQUIPMENT (GLOVES, GOGGLES, ETC): NONE REQUIRED WORK/HYGIENE PRACTICES: Avoid prolonged contact with skin. Wash hands

immediately after use. When using do not eat, drink or smoke.

Form Completed by: Woodhall Stopford, MD, MSPH

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