MATERIAL SAFETY 3M DATA SHEET 3M Center St. Paul, Minnesota 55144-1000 1-800-364-3577 or (651) 737-6501 (24 hours) Copyright, 2001, Minnesota Mining and Manufacturing Company. All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: 1) the information is copied in full with no changes unless prior agreement is obtained from 3M, and 2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon. DIVISION: AUTOMOTIVE AFTERMARKET TRADE NAME: 3M(TM) Engine & Vehicle Degreaser, P.N. 38071, 38072, 38073 ID NUMBER/U.P.C.: 60-9800-3371-0 00-51131-38073-8 60-9800-3372-8 00-51131-38072-1 60-9800-3385-0 00-51131-38071-4 ISSUED: January 15, 2001 SUPERSEDES: October 23, 2000 DOCUMENT: 08-4331-8 _____ C.A.S. NO. PERCENT 1. INGREDIENT _____

 WATER.....
 7732-18-5
 60.0
 - 80.0

 2-BUTOXYETHANOL....
 111-76-2
 5.0
 - 10.0

 DODECYLBENZENESULFONIC ACID.....
 27176-87-0
 3.0
 - 7.0

 POTASSIUM HYDROXIDE.....
 1310-58-3
 1.0
 - 5.0

 TRIETHANOLAMINE.....
 102-71-6
 1.0
 - 5.0
1.0 TETRAPOTASSIUM DIPHOSPHATE..... 7320-34-5 - 5.0 This product contains the following toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR Part 372: 2-BUTOXYETHANOL _____ 2. PHYSICAL DATA _____ BOILING POINT:..... 212 - 300 F @ 70 F VAPOR DENSITY:..... 1 Air=1 EVAPORATION RATE: N/D SOLUBILITY IN WATER:..... complete SPECIFIC GRAVITY:..... 1.02 Water=1 PERCENT VOLATILE:..... 90 % by wt pH:.....12.4 VISCOSITY: N/D MELTING POINT:..... N/D _____ Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: 3M(TM) Engine & Vehicle Degreaser, P.N. 38071, 38072, 38073 January 15, 2001 PAGE 2 _____ 2. PHYSICAL DATA (continued) _____ APPEARANCE AND ODOR: Liquid, green, sweet odor _____ 3. FIRE AND EXPLOSION HAZARD DATA _____ FLASH POINT:..... N/A FLAMMABLE LIMITS - LEL:..... N/A FLAMMABLE LIMITS - UEL:..... N/A AUTOIGNITION TEMPERATURE:..... N/A EXTINGUISHING MEDIA: Water, Carbon dioxide, Dry chemical, Foam SPECIAL FIRE FIGHTING PROCEDURES: Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head. UNUSUAL FIRE AND EXPLOSION HAZARDS: None known. NFPA HAZARD CODES: HEALTH: 1 FIRE: 1 REACTIVITY: 0 UNUSUAL REACTION HAZARD: none _____ 4. REACTIVITY DATA _____ STABILITY: Stable INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID: Not applicable. HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur. HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide and Carbon Dioxide. _____ 5. ENVIRONMENTAL INFORMATION _____ SPILL RESPONSE: Observe precautions from other sections. Ventilate area. Contain spill. Cover with absorbent material. Collect spilled material. Clean up residue with water. Place in a closed container. _____ _____ Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: 3M(TM) Engine & Vehicle Degreaser, P.N. 38071, 38072, 38073 January 15, 2001 PAGE 3 _____ 5. ENVIRONMENTAL INFORMATION (continued) _____ RECOMMENDED DISPOSAL: Incinerate in an industrial or commercial facility in the presence of a combustible material. ENVIRONMENTAL DATA: Not determined. **REGULATORY INFORMATION:** Volatile Organic Compounds: N/D. VOC Less H2O & Exempt Solvents: N/D. Since regulations vary, consult applicable regulations or authorities before disposal. In the event of an uncontrolled release of this material, the user should determine if the release qualifies as a reportable quantity. U.S. EPA Hazardous Waste Number = None (Not U.S. EPA Hazardous). EPCRA HAZARD CLASS: FIRE HAZARD: NO PRESSURE: NO REACTIVITY: NO ACUTE: Yes CHRONIC: Yes _____ 6. SUGGESTED FIRST AID _____ EYE CONTACT: Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention. SKIN CONTACT: Immediately flush skin with large amounts of water for at least 15 minutes in a chemical safety shower while removing contaminated clothing and shoes. Get immediate medical attention. Wash contaminated clothing before reuse. INHALATION: If signs/symptoms occur, remove person to fresh air. If signs/symptoms continue, call a physician. IF SWALLOWED: If swallowed, do NOT induce vomiting. Give victim two glasses of water. Call a physician immediately. Never give anything by mouth to an unconscious person.

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: 3M(TM) Engine & Vehicle Degreaser, P.N. 38071, 38072, 38073 January 15, 2001 PAGE 4 _____ 7. PRECAUTIONARY INFORMATION _____ EYE PROTECTION: Avoid eye contact. Wear unvented goggles during operations in which exposure is likely. SKIN PROTECTION: Avoid skin contact. Wear appropriate gloves when handling this material. RECOMMENDED VENTILATION: Use with adequate dilution ventilation. RESPIRATORY PROTECTION: Avoid breathing of vapors, mists or spray. PREVENTION OF ACCIDENTAL INGESTION: Wash hands after handling and before eating. Do not ingest. **RECOMMENDED STORAGE:** Store at temperatures above 32 degrees F (O degrees C). Allow material to return to room temperature before use. Keep container closed when not in use. Keep out of the reach of children. FIRE AND EXPLOSION AVOIDANCE: Keep container tightly closed. OTHER PRECAUTIONARY INFORMATION: For industrial or professional use only. EXPOSURE LIMITS INGREDIENT VALUE UNIT TYPE AUTH SKIN* _____ NONE NONE NONE NONE WATER..... 25 TWA ACGIH Y 2-BUTOXYETHANOL.... PPM TWA PPM OSHAV Y 25 2-BUTOXYETHANOL.... OSHA VACATED PEL 2-BUTOXYETHANOL.... PPM TWA 50 OSHA Y NONE NONE NONE NONE DODECYLBENZENESULFONIC ACID..... POTASSIUM HYDROXIDE..... 2 MG/M3 CEIL ACGIH POTASSIUM HYDROXIDE..... 2 MG/M3 CEIL OSHA 5 TRIETHANOLAMINE..... MG/M3 TWA ACGIH TETRAPOTASSIUM DIPHOSPHATE..... NONE NONE NONE NONE * SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route

SOURCE OF EXPOSURE LIMIT DATA:

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

MSDS: 3M(TM) Engine & Vehicle Degreaser, P.N. 38071, 38072, 38073 January 15, 2001 PAGE 5 EXPOSURE LIMITS (continued) INGREDIENT VALUE UNIT TYPE AUTH SKIN* _____ - ACGIH: American Conference of Governmental Industrial Hygienists - OSHA: Occupational Safety and Health Administration - OSHAV: Occupational Safety and Health Administration Vacated PEL. Vacated Permissible Exposure Limits (PEL) are enforced as the OSHA PEL in some states. Check with your local regulatory authority. - NONE: None Established _____ 8. HEALTH HAZARD DATA _____ EYE CONTACT: Chemical Related Eye Burns (chemical corrosivity): signs/symptoms can include cloudy appearance of the cornea, chemical burns, pain, tearing, ulcers, impaired vision or loss of vision. SKIN CONTACT: Skin Burns (chemical corrosivity): signs/symptoms can include redness, swelling, itching, pain, blistering, ulceration, sloughing, and scar formation. May be absorbed through the skin in harmful amounts. Prolonged or repeated exposure may cause: Allergic Skin Reaction: signs/symptoms can include redness, swelling, blistering, and itching. INHALATION: Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing. IF SWALLOWED: Damage to Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, nausea, abdominal tenderness, burns of mouth, difficulty swallowing, blood in vomitus, blood in feces, and ulceration. Kidney Effects: signs/symptoms can include reduced urine volume, blood in urine and back pain. Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, muscular weakness, incoordination, slowed reaction time, fatigue, blurred vision, slurred speech, giddiness, tremors and convulsions. _____ Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

MSDS: 3M(TM) Engine & Vehicle Degreaser, P.N. 38071, 38072, 38073 January 15, 2001 PAGE 6

SECTION CHANGE DATES

INGREDIENTS SECTION CHANGED SINCE October 23, 2000 ISSUE PRECAUTIONARY INFO. SECTION CHANGED SINCE October 23, 2000 ISSUE

Abbreviations: N/D - Not Determined N/A - Not Applicable CA - Approximately

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. 3M MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of use or application. Given the variety of factors that can affect the use and application of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of use or application.

3M provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, 3M makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the MSDS available directly from 3M.