

MATERIAL SAFETY 3M
DATA SHEET 3M Center
St. Paul, Minnesota
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DIVISION: AUTOMOTIVE AFTERMARKET

TRADE NAME:

3M(TM) Fuel System Cleaner; PN 08913

ID NUMBER/U.P.C.:

60-9800-3838-8 00-51131-16393-5

ISSUED: October 31, 2001

SUPERSEDES: INITIAL ISSUE

DOCUMENT: 16-1931-1

1. INGREDIENT	C.A.S. NO.	PERCENT
2,2,4-TRIMETHYLPENTANE.....	540-84-1	20.0 - 30.0
TOLUENE.....	108-88-3	15.0 - 25.0
ISOHEPTANE.....	31394-54-4	7.0 - 13.0
XYLENE.....	1330-20-7	7.0 - 13.0
OLEIC ACID.....	112-80-1	7.0 - 13.0
WATER.....	7732-18-5	5.0 - 10.0
**LIQUEFIED PETROLEUM GAS.....	68476-85-7	5.0 - 10.0
DIACETONE ALCOHOL.....	123-42-2	3.0 - 7.0
4-METHYL-2-PENTANOL.....	108-11-2	3.0 - 7.0
ISOOCTANE.....	26635-64-3	1.0 - 5.0
ETHANOLAMINE.....	141-43-5	1.0 - 5.0
2-BUTOXYETHANOL.....	111-76-2	1.0 - 5.0
ETHYLBENZENE.....	100-41-4	1.0 - 5.0
BENZENE.....	71-43-2	< 0.05

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:

TOLUENE
XYLENE
2-BUTOXYETHANOL
ETHYLBENZENE
BENZENE

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

2. PHYSICAL DATA

BOILING POINT:..... < 95 F
VAPOR PRESSURE:..... 35 psi
 @ 70 F
VAPOR DENSITY:..... > 1 Air=1
EVAPORATION RATE:..... > 1 Water=1
SOLUBILITY IN WATER:..... apprec.
SPECIFIC GRAVITY:..... 0.81 Water=1
PERCENT VOLATILE:..... 90 % by wt
pH:..... N/A
VISCOSITY:..... < 10 centipoise
MELTING POINT:..... N/A

APPEARANCE AND ODOR:

Aerosol, Semi-Opaque Liquid, Solvent Odor, semi-opaque liquid,
solvent odor

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:..... -120 F
FLAMMABLE LIMITS - LEL:..... N/A
FLAMMABLE LIMITS - UEL:..... N/A
AUTOIGNITION TEMPERATURE:..... N/D

EXTINGUISHING MEDIA:

Water spray, 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:

Closed containers exposed to heat from fire may build pressure and
explode.

NFPA HAZARD CODES: HEALTH: 2 FIRE: 2 REACTIVITY: 0 AEROSOL STORAGE: 3
UNUSUAL REACTION HAZARD: none

OSHA FIRE HAZARD CLASS: Class IB Flammable Liquid

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4. REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY - MATERIALS/CONDITIONS TO AVOID:

Strong Acids, Strong Oxidizing Agents

Alkalies and Some Metals.

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Oxides of Carbon and Organics.

5. ENVIRONMENTAL INFORMATION

SPILL RESPONSE:

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Ventilate area. Extinguish all ignition sources. Contain spill. Evacuate unprotected personnel from hazard area. Cover with absorbent material. Cover spill area with Light Water Brand or other ATC foam. (For further information on ATC foam usage, contact 3M Fire Protection Systems.) Collect using non-sparking tools. Clean up residue with water. Place in an approved metal container. Seal the container. Place leaking containers in a well-ventilated area, preferably in an exhaust hood, if available, or outdoors.

RECOMMENDED DISPOSAL:

If necessary, vent in hood or remote area. Incinerate in a permitted hazardous waste incinerator. Do not puncture or burn cans in a household incinerator. Facility must be capable of handling aerosol cans.

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 = D001 (Ignitable)

EPCRA HAZARD CLASS:

FIRE HAZARD: Yes PRESSURE: Yes REACTIVITY: No ACUTE: Yes CHRONIC: Yes

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

6. SUGGESTED FIRST AID

EYE CONTACT:

Immediately flush eyes with large amounts of water. Get immediate medical attention.

SKIN CONTACT:

Flush skin with large amounts of water. If irritation persists, get medical attention.

INHALATION:

Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

IF SWALLOWED:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

7. PRECAUTIONARY INFORMATION

EYE PROTECTION:

Avoid eye contact. Wear vented goggles. Wear safety glasses with side shields.

SKIN PROTECTION:

Avoid skin contact. Wear appropriate gloves when handling this material. A pair of gloves made from the following material(s) are recommended: nitrile rubber, fluoroelastomer (Viton).

RECOMMENDED VENTILATION:

Do not use in a confined area or areas with little or no air movement. Use in a well-ventilated area. Provide sufficient ventilation to maintain emissions below recommended exposure limits. If exhaust ventilation is not adequate, use appropriate respiratory protection.

RESPIRATORY PROTECTION:

Avoid breathing of vapors, mists or spray. Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: half-mask organic vapor respirator, full-face organic vapor respirator.

PREVENTION OF ACCIDENTAL INGESTION:

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Wash hands after handling and before eating.

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7. PRECAUTIONARY INFORMATION (continued)

RECOMMENDED STORAGE:

Store in a cool place. Store away from heat. Store at temperatures below 120 degrees F (49 degrees C). Keep out of the reach of children.

FIRE AND EXPLOSION AVOIDANCE:

Aerosol container contains flammable gas under pressure. Keep away from heat, sparks, open flame, and other sources of ignition. Prevent all sources of ignition. Extremely flammable liquid and vapor. Do not pierce or burn container, even after use. No smoking while handling this material. Avoid static discharge.

OTHER PRECAUTIONARY INFORMATION:

For industrial or professional use only.

EXPOSURE LIMITS

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
2,2,4-TRIMETHYLPENTANE.....	300	PPM	TWA	ACGIH	
2,2,4-TRIMETHYLPENTANE.....	375	PPM	STEL	ACGIH	
TOLUENE.....	50	PPM	TWA	ACGIH	Y
TOLUENE.....	100	PPM	TWA	OSHA	
	OSHA VACATED PEL				
TOLUENE.....	150	PPM	STEL	OSHA	
	OSHA VACATED PEL				
TOLUENE.....	200	PPM	TWA	OSHA	
TOLUENE.....	300	PPM	CEIL	OSHA	
TOLUENE.....	75	PPM	STEL	CMRG	Y
ISOHEPTANE.....	NONE	NONE	NONE	NONE	
XYLENE.....	100	PPM	TWA	ACGIH	
XYLENE.....	150	PPM	STEL	ACGIH	
XYLENE.....	100	PPM	TWA	OSHA	
XYLENE.....	150	PPM	STEL	OSHA	
OLEIC ACID.....	10	MG/M3	TWA	OSHA	
	AS MIST				
OLEIC ACID.....	10	MG/M3	TWA	ACGIH	
	AS MIST				
WATER.....	NONE	NONE	NONE	NONE	
**LIQUEFIED PETROLEUM GAS.....	1000	PPM	TWA	ACGIH	
**LIQUEFIED PETROLEUM GAS.....	1000	PPM	TWA	OSHA	
DIACETONE ALCOHOL.....	50	PPM	TWA	ACGIH	
DIACETONE ALCOHOL.....	50	PPM	TWA	OSHA	
4-METHYL-2-PENTANOL.....	25	PPM	TWA	OSHA	Y
4-METHYL-2-PENTANOL.....	40	PPM	STEL	OSHA	Y
4-METHYL-2-PENTANOL.....	25	PPM	TWA	ACGIH	Y
4-METHYL-2-PENTANOL.....	40	PPM	STEL	ACGIH	Y
ISOOCTANE.....	300	PPM	TWA	ACGIH	
ISOOCTANE.....	374	PPM	STEL	ACGIH	

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EXPOSURE LIMITS (continued)

INGREDIENT	VALUE	UNIT	TYPE	AUTH	SKIN*
ETHANOLAMINE.....	3	PPM	TWA	ACGIH	
ETHANOLAMINE.....	6	PPM	STEL	ACGIH	
ETHANOLAMINE.....	3	PPM	TWA	OSHA	
ETHANOLAMINE.....	6	PPM	STEL	OSHA	
ETHANOLAMINE.....	6	MG/M3	TWA	OSHA	
2-BUTOXYETHANOL.....	25	PPM	TWA	ACGIH	Y
2-BUTOXYETHANOL.....	25	PPM	TWA	OSHA	Y
	OSHA VACATED PEL				
2-BUTOXYETHANOL.....	50	PPM	TWA	OSHA	Y
ETHYLBENZENE.....	100	PPM	TWA	ACGIH	
ETHYLBENZENE.....	125	PPM	STEL	ACGIH	
ETHYLBENZENE.....	100	PPM	TWA	OSHA	
ETHYLBENZENE.....	125	PPM	STEL	OSHA	
BENZENE.....	2.5	PPM	STEL	ACGIH	Y
BENZENE.....	0.5	PPM	TWA	ACGIH	Y
BENZENE.....	1	PPM	TWA	OSHA	
BENZENE.....	5	PPM	STEL	OSHA	
BENZENE.....	0.5	PPM	TWA	OSHA	
	OSHA ACTION LEVEL				

* SKIN NOTATION: Listed substances indicated with 'Y' under SKIN refer to the potential contribution to the overall exposure by the cutaneous route including mucous membrane and eye, either by airborne or, more particularly, by direct contact with the substance. Vehicles can alter skin absorption.

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- CMRG: Chemical Manufacturer Recommended Exposure Guidelines
- OSHA: Occupational Safety and Health Administration
- OSHA: 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:

Moderate Eye Irritation: signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.

SKIN CONTACT:

Moderate Skin Irritation: signs/symptoms can include redness, swelling, itching, and dryness.

May be absorbed through the skin and produce effects similar to those caused by inhalation and/or ingestion.

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8. HEALTH HAZARD DATA (continued)

INHALATION:

May be harmful if inhaled.

Intentional concentration and inhalation may be harmful or fatal.

Central Nervous System Depression: signs/symptoms can include headache, dizziness, drowsiness, incoordination, slowed reaction time, slurred speech, giddiness and unconsciousness.

Irritation (upper respiratory): signs/symptoms can include soreness of the nose and throat, coughing and sneezing.

WHILE THE FOLLOWING EFFECTS ARE ASSOCIATED WITH ONE OR MORE OF THE INDIVIDUAL INGREDIENTS IN THIS PRODUCT AND ARE REQUIRED TO BE INCLUDED ON THE MSDS BY THE U.S. OSHA HAZARD COMMUNICATION STANDARD, THEY ARE NOT EXPECTED EFFECTS DURING FORESEEABLE USE OF THIS PRODUCT.

Prolonged or repeated overexposure, above recommended guidelines, may cause:

Kidney Effects: signs/symptoms can include reduced urine volume, blood in urine and back pain.

Liver Effects: signs/symptoms can include yellow skin(jaundice) and tenderness of upper abdomen.

Central Neuropathy: signs/symptoms can include dizziness, incoordination, visual changes, emotional changes, tremors and convulsions.

IF SWALLOWED:

Ingestion is not a likely route of exposure to this product.

WHILE THE FOLLOWING EFFECTS ARE ASSOCIATED WITH ONE OR MORE OF THE INDIVIDUAL INGREDIENTS IN THIS PRODUCT AND ARE REQUIRED TO BE INCLUDED ON THE MSDS BY THE U.S. OSHA HAZARD COMMUNICATION STANDARD, THEY ARE NOT EXPECTED EFFECTS DURING FORESEEABLE USE OF THIS PRODUCT.

Ingestion may cause:

Irritation of Gastrointestinal Tissues: signs/symptoms can include pain, vomiting, abdominal tenderness, nausea, blood in vomitus, and blood in feces.

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

8. HEALTH HAZARD DATA (continued)

Aspiration Pneumonitis: signs/symptoms can include coughing, difficulty breathing, wheezing, coughing up blood and pneumonia, which can be fatal.

CANCER:

WARNING: Contains a chemical which can cause cancer. (100-41-4) (IARC possible human carcinogen 2B)

WARNING: Contains a chemical which can cause cancer. (71-43-2) (NTP human carcinogen, IARC human carcinogen 1, OSHA listed carcinogen, ACGIH suspected human carcinogen A2, Calif. Proposition 65)

REPRODUCTIVE/DEVELOPMENTAL TOXINS:

WARNING: Contains a chemical which can cause birth defects. (108-88-3)

WARNING: Contains a chemical which can cause birth defects and male reproductive harm. (71-43-2)

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