



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Foaming Engine Degreaser, PN 08899

MANUFACTURER: 3M

DIVISION: Automotive Aftermarket

ADDRESS: 3M Center
St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 12/29/2006

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Product Use:

Intended Use: Automotive
Specific Use: Engine Cleaner

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
WATER	7732-18-5	40 - 70
2-BUTOXYETHANOL	111-76-2	7 - 13
HEAVY AROMATIC NAPHTHA	64742-94-5	5 - 10
ETHOXYLATED NONYLPHENOL	127087-87-0	3 - 7
MESITYLENE	108-67-8	1 - 5
BUTANE	106-97-8	1 - 5
PROPANE	74-98-6	1 - 5
LIGHT AROMATIC NAPHTHA	64742-95-6	1 - 5
1,2,4-TRIMETHYLBENZENE	95-63-6	1 - 5
TRIPROPYLENE GLYCOL METHYL ETHER	25498-49-1	0.5 - 1.5
ETHYLBENZENE	100-41-4	< 0.15

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Aerosol

Odor, Color, Grade: White foam spray; slight solvent odor

General Physical Form: Liquid

Immediate health, physical, and environmental hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure. May cause target organ effects. Contains a chemical or chemicals which can cause cancer.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Inhalation:

Intentional concentration and inhalation may be harmful or fatal.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Cardiac Sensitization: Signs/symptoms may include irregular heartbeat (arrhythmia), faintness, chest pain, and may be fatal.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
ETHYLBENZENE	100-41-4	Group 2B	International Agency for Research on Cancer

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. Get immediate medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 NOTE TO PHYSICIANS

Exposure may increase myocardial irritability. Do not administer sympathomimetic drugs unless absolutely necessary.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	-50 °F [Details: (Propellant)]
Flammable Limits - LEL	No Data Available
Flammable Limits - UEL	No Data Available

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Closed containers exposed to heat from fire may build pressure and explode. Extremely flammable liquid and vapor. Vapors may travel long distances along the ground or floor to an ignition source and flash back. Aerosol container contains flammable material under pressure.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Contain spill. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Cover spill area with a fire-extinguishing foam designed for use on solvents, such as alcohols and acetone, that can dissolve in water. An AR - AFFF type foam is recommended. Working from around

the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible using non-sparking tools. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and MSDS. Collect the resulting residue containing solution. Place in an approved metal container. Seal the container. Dispose of collected material as soon as possible.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Keep away from heat, sparks, open flame, pilot lights and other sources of ignition. Do not pierce or burn container, even after use. No smoking while handling this material. Do not spray near flames or sources of ignition. Avoid breathing of vapors, mists or spray. Aerosol container contains flammable gas under pressure. Avoid static discharge. Avoid eye contact with vapors, mists, or spray. Keep out of the reach of children. Avoid contact with oxidizing agents. Avoid skin contact.

7.2 STORAGE

Store away from acids. Store away from heat. Store out of direct sunlight. Keep container tightly closed. Do not store containers on their sides. Store away from oxidizing agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Do not use in a confined area or areas with little or no air movement. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits and/or control mist, vapor, or spray. If ventilation is not adequate, use respiratory protection equipment.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Safety Glasses with side shields, Indirect Vented Goggles.

8.2.2 Skin Protection

Not applicable. Avoid skin contact. Gloves are not required.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Butyl Rubber, Nitrile Rubber, Polyethylene/Ethylene Vinyl Alcohol.

8.2.3 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 facepiece or fullface air-purifying respirator with organic vapor cartridges and N95 particulate prefilters. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Not applicable.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
2-BUTOXYETHANOL	ACGIH	TWA	20 ppm	Table A3
2-BUTOXYETHANOL	OSHA	TWA, Vacated	25 ppm	Skin Notation*
2-BUTOXYETHANOL	OSHA	TWA	50 ppm	Skin Notation*; Table Z-1
BUTANE	ACGIH	TWA	1000 ppm	
BUTANE	OSHA	TWA	800 ppm	Table Z-1A
ETHYLBENZENE	ACGIH	TWA	100 ppm	Table A3
ETHYLBENZENE	ACGIH	STEL	125 ppm	Table A3
ETHYLBENZENE	OSHA	TWA	100 ppm	Table Z-1A
ETHYLBENZENE	OSHA	STEL	125 ppm	Table Z-1A
HEAVY AROMATIC NAPHTHA	CMRG	TWA	17 ppm	
LIGHT AROMATIC NAPHTHA	CMRG	TWA	50 ppm	
MESITYLENE	ACGIH	TWA	25 ppm	
MESITYLENE	OSHA	TWA	25 ppm	Table Z-1A
PROPANE	ACGIH	TWA	1000 ppm	
PROPANE	OSHA	TWA	1000 ppm	Table Z-1

* Substance(s) 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.

VAC Vacated PEL: Vacated Permissible Exposure Limits [PEL] are enforced as the OSHA PEL in some states. Check with your local regulatory agency.

SOURCE OF EXPOSURE LIMIT DATA:

- ACGIH: American Conference of Governmental Industrial Hygienists
- CMRG: Chemical Manufacturer Recommended Guideline
- OSHA: Occupational Safety and Health Administration
- AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Aerosol
Odor, Color, Grade:	White foam spray; slight solvent odor
General Physical Form:	Liquid
Autoignition temperature	<i>No Data Available</i>
Flash Point	-50 °F [<i>Details: (Propellant)</i>]
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>
Boiling point	<=0 °F [<i>Details: CONDITIONS: Compressed Gas</i>]
Vapor Density	>=1 [<i>Ref Std: AIR=1</i>]
Specific Gravity	Approximately 0.872 Units not avail. or not appl. [<i>Ref Std: WATER=1</i>]
pH	<i>No Data Available</i>
Melting point	<i>Not Applicable</i>
Solubility In Water	<i>Not Applicable</i>
Solubility in Water	Appreciable
Evaporation rate	>=1 [<i>Ref Std: ETHER=1</i>]
Volatile Organic Compounds	35 [<i>Test Method: calculated per CARB title 2</i>]
Percent volatile	85 - 90 %

Viscosity

No Data Available

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: Heat

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

Substance

Carbon monoxide
Carbon dioxide

Condition

During Combustion
During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Incinerate in a permitted hazardous waste incinerator. As a disposal alternative, dispose of waste product in a permitted hazardous waste facility.

Facility must be capable of handling aerosol cans. Dispose of empty product containers in a sanitary landfill.

Absorbed waste may also be incinerated in a permitted hazardous waste incinerator in the presence of a combustible material.

EPA Hazardous Waste Number (RCRA): D001 (Ignitable)

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

LB-K100-0305-5, 60-4100-0945-4, 60-4550-3012-6

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
1,2,4-TRIMETHYLBENZENE	95-63-6	1 - 5
2-BUTOXYETHANOL (GLYCOL ETHERS)	111-76-2	7 - 13
ETHYLBENZENE	100-41-4	< 0.15

This material contains a chemical which requires export notification under TSCA Section 12[b]:

<u>Ingredient (Category if applicable)</u>	<u>C.A.S. No</u>	<u>Regulation</u>	<u>Status</u>
MESITYLENE	108-67-8	Toxic Substances Control Act (TSCA) 4 Test Rule Chemicals	Applicable

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
ETHYLBENZENE	100-41-4	**Carcinogen

** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

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.

Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

WHMIS: Hazardous

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 4 Reactivity: 0 Special Hazards: None

Aerosol Storage Code: 1

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Reason for Reissue: The MSDS has been revised because 3M has adopted the 16-section ANSI/ISO format. The potential hazards of the product have not changed. We encourage you to reread the MSDS and review the information.

Revision Changes:

Section 14: ID Number(s) was modified.

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ZEREX AFC 3/1 GA

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: ZEREX AFC 3/1 GA

General or Generic ID: GLYCOL

Company

The Valvoline Company
P.O. Box 14000
Lexington, KY 40512

Telephone Numbers

Emergency: 1-800-274-5263
Information: 1-859-357-7206

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
ETHYLENE GLYCOL	107-21-1	90.0- 90.0
DIETHYLENE GLYCOL	111-46-6	1.0- 10.0
DIPOTASSIUM PHOSPHATE	7758-11-4	1.0- 7.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

May cause mild eye irritation.

Skin

May cause mild skin irritation. Although rare, skin contact with ethylene glycol may cause allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects). Passage through the skin may add to toxic effects from breathing or swallowing.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

Breathing of vapor or mist is possible.

Symptoms of Exposure

stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, involuntary eye movement, kidney damage.

Target Organ Effects

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals, and may aggravate preexisting disorders of these organs in humans: kidney damage, Overexposure to this material (or its

components) has been suggested as a cause of the following effects in humans, and may aggravate preexisting disorders of these organs: central nervous system effects, liver abnormalities, kidney damage, liver damage.

Developmental Information

Ethylene glycol has caused birth defects in animal studies at high oral doses.

Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Skin absorption.

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral "shots" of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body. Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death. The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnea,

tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post-exposure and is characterized by renal failure ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis.

5. FIRE FIGHTING MEASURES

Flash Point

250.0 F (121.1 C)

Explosive Limit

(for component) Lower 3.2 Upper 15.3 %

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media

alcohol foam, carbon dioxide, dry chemical.

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 1, Flammability - 1, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill

Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since

emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage

Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection

Wear resistant gloves such as: neoprene, nitrile rubber, polyvinyl chloride, To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Material Safety Data Sheet

SECTION I - Material Identity

Item Name	
Part Number/Trade Name	HA55120 - HEET GAS LINE ANTIFREEZE
National Stock Number	6850PHA55120
CAGE Code	2M612
Part Number Indicator	A
MSDS Number	186964
HAZ Code	B

SECTION II - Manufacturer's Information

Manufacturer Name	GOLD EAGLE CO
Street	4400 S. KILDARE BLVD
City	CHICAGO
State	IL
Country	US
Zip Code	60632-4372
Emergency Phone	800-424-9300 CHEMTREC
Information Phone	773-376-4400

MSDS Preparer's Information

Date MSDS Prepared/Revised	27OCT97
Date of Technical Review	14NOV94
Active Indicator	Y

Alternate Vendors

SECTION III - Physical/Chemical Characteristics

Appearance/Odor	YELLOW LIQUID, SOLVENT ODOR
Boiling Point	148 F (65C)
Melting Point	NR
Vapor Pressure	97
Vapor Density	1.1

Specific Gravity	0.795
Decomposition Temperature	N/K
Evaporation Rate	NR
Solubility in Water	SOLUBLE
Chemical pH	NA
Corrosion Rate	NR
Container Pressure Code	1
Temperature Code	4
Product State Code	L

SECTION IV - Fire and Explosion Hazard Data

Flash Point	52
Flash Point Method	TCC
Lower Explosion Limit	6.0
Upper Explosion Limit	36.5
Extinguishing Media	USE HALON REPLACEMENT OR CARBON DIOXIDE EXTINGUISHERS OR ALCOHOL FOAM FOR SMALL FIRES. WATER SPRAY OR FOG CAN COOL FIRE BUT MAY NOT BE EFFECTIVE IN EXTINGUISHING FIRE. LARGE FIRES SHOULD BE EXTINGUISHED WITH ALCOHOL FOAM. USE WATER SPRAY TO COOL CONTAINERS EXPOSED TO FIRE. CONTAINERS MAY EXPLODE IN HEAT OR FIRE
Special Fire Fighting Procedures	USE NIOSH APPROVED SCBA RESPIRATOR IN THE POSITIVE PRESSURE MODE AND CHEMICAL PROTECTIVE CLOTHING SPECIFICALLY RECOMMENDED FOR METHANOL
Unusual Fire/Explosion Hazards	DANGEROUS FIRE AND EXPLOSION HAZARD WHEN EXPOSED TO HEAT OR FLAME. METHANOL IS EXTREMELY FLAMMABLE AND FORMS EXPLOSIVE MIXTURES WITH AIR. METHANOL VAPORS MAY TRAVEL CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK

SECTION V - Reactivity Data

Stability	YES
Stability Conditions to Avoid	STORE IN A WELL VENTILATED PLACE AWAY FROM SOURCES OF IGNITION, COMBUSTIBLES,

Materials to Avoid	OXIDIZING MATERIALS AND ACID STRONG OXIDIZING AGENTS, ALUMINUM, ZINC, OR METALS THAT DISPLACE HYDROGEN, RUBBER AND RUBBER BASED COATINGS, CHROMIC ANHYDRIDE, LEAD PERCHLORATE AND PERCHLORIC ACIDS
Hazardous Decomposition Products	EXCESSIVE HEATING AND OR INCOMPLETE COMBUSTION WILL PRODUCE CARBON MONOXIDE AND TOXIC VAPORS SUCH AS FORMALDEHYDE
Hazardous Polymerization	NO
Polymerization Conditions to Avoid	NR
LD50 - LD50 Mixture	NR

SECTION VI - Health Hazard Data

Route of Entry: Skin	YES
Route of Entry: Ingestion	YES
Route of Entry: Inhalation	YES
Health Hazards - Acute and Chronic	DERMATITIS, POSSIBLE SYSTEMIC EFFECTS, IRRITANT
Carcinogenity: NTP	N/P
Carcinogenity: IARC	N/P
Carcinogenity: OSHA	N/P
Explanation of Carcinogenity	NONE
Symptoms of Overexposure	[EYE] MILD IRRITANT [SKIN] PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE DERMATITIS, SCALING AND POSSIBLE SYSTEMIC EFFECTS [INGEST] POISON - ORAL HUMAN LOWEST LETHAL DOSE IS 6.4 G/KG [INHAL] POISONOUS, NARCOTIC CHEMICAL AFFECTING CENTRAL NERVOUS SYSTEM RESULTING IN DIZZINESS, NAUSEA, VISUAL IMPAIRMENT, NARCOSIS AND MUSCULAR IMPAIRMENT
Medical Cond. Aggrevated by Exposure	NONE SPECIFIED BY MANUFACTURER
Emergency/First Aid Procedures	[EYE] IMMEDIATELY WASH THE EYES WITH LARGE QUANTITIES OF ROOM TEMPERATURE WATER FOR AT LEAST 15 MIN. OCCASIONALLY LIFT LIDS. GET MED ATTENTION. [SKIN] PROMPTLY WASH THE CONTAMINATED SKIN WITH SOAP AND WATER FOR AT LEAST 15 MIN. PROMPTLY REMOVE CONTAMINATED CLOTHING AND WASH BEFORE REUSE. SYSTEMIC EFFECTS

MAY BE DELAYED 18 - 72. KEEP PERSON UNDER OBSERVATION. [INGEST] IF THIS PRODUCT IS INGESTED AND THE PERSON IS CONSCIOUS, INDUCE VOMITING, THEN GIVE 2 TEASPOONS OF BAKING SODA IN A GLASS OF WATER. GET MED ATTEN. [INHAL] MOVE THE EXPOSED PERSON TO FRESH AIR AT ONCE AND CALL EMERGENCY MED CARE

SECTION VII - Precautions for Safe Handling and Use

Steps if Material Released/Spilled	[SMALL] REMOVE SOURCES OF HEAT OR IGNITION, PROVIDE ADEQUATE VENTILATION. CONTAIN LEAK USING ABSORBENT, INERT, NON-COMBUSTIBLE MATERIAL. [LARGE] CONTAIN SPILL, TRANSFER TO SECURE CONTAINER. IN THE EVENT OF UNCONTROLLED MATERIAL RELEASE, THE USER SHOULD DETERMINE IF RELEASE IS REPORTABLE UNDER APPLICABLE LAWS AND REGULATIONS
Neutralizing Agent	NR
Waste Disposal Method	DISPOSE OF PRODUCT IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. BEFORE ATTEMPTING CLEAN UP, REFER TO OTHER SECTIONS OF MSDS FOR HAZARD CAUTION INFORMATION
Handling and Storage Precautions	PRODUCT IS FLAMMABLE, KEEP AWAY FROM SOURCES OF IGNITION, COMBUSTIBLES, OXIDIZING MATERIALS AND ACIDS. STORE IN AN AREA EQUIPPED WITH AUTOMATIC SPRINKLERS OR FIRE EXTINGUISHING SYSTEM. EMPTY CONTAINERS CONTAIN PRODUCT RESIDUES, ASSUME EMPTIED CONTAINERS TO HAVE SAME HAZARDS AS FULL CONTAINERS
Other Precautions	NR

SECTION VIII - Control Measures

Respiratory Protection	DO NOT USE AIR PURIFYING RESPIRATOR. USE APPROPRIATE NIOSH APPROVED SUPPLIED OR
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Ventilation	SCBA. RESPIRATORS MUST BE SELECTED BASED ON THE AIRBORNE LEVELS FOUND IN THE WORKPLACE AND MUST NOT EXCEED THE WORKING LIMITS OF THE RESPIRATOR PROVIDE PROPERLY ENGINEERED VENTILATION TO MAINTAIN METHANOL VAPORS BELOW NIOSH PEL
Protective Gloves	SOLVENT RESISTANT GLOVES
Eye Protection	SPLASH PROOF SAFETY GOGGLES
Other Protective Equipment	CHEMICAL RESISTANT APRON OR CLOTHING AS NEEDED
Work Hygenic Practices	STANDARD PERSONAL HYGIENE
Supplemental Health/Safety Data	NONE SPECIFIED BY MANUFACTURER

SECTION IX - Label Data

Protect Eye	YES
Protect Skin	YES
Protect Respiratory	YES
Chronic Indicator	YES
Contact Code	SLIGHT
Fire Code	UNKNOWN
Health Code	UNKNOWN
React Code	UNKNOWN
Specific Hazard and Precaution	TARGET ORGANS: CENTRAL NERVOUS SYSTEM

SECTION X - Transportation Data

Container Quantity	12
Unit of Measure	OZF

SECTION XI - Site Specific/Reporting Information

Volatile Organic Compounds (P/G)	6.63
Volatile Organic Compounds (G/L)	794.5315

SECTION XII - Ingredients/Identity Information

Ingredient #	02
Ingredient Name	PROPRIETARY ADDITIVE

CAS Number	1002
Proprietary	YES
Percent	1
OSHA PEL	NR
ACGIH TLV	NR
Ingredient #	1
Ingredient Name	METHANOL
CAS Number	67561
Proprietary	NO
Percent	99
OSHA PEL	200 PPM
ACGIH TLV	200 PPM