

Appendix A
Material Safety Data Sheets for Safer Alternative Products

MSDS for Soy Gold 2000

SOYGOLD

2000

S O L V E N T

M A T E R I A L S A F E T Y D A T A S H E E T

EMERGENCY PHONE: 913-599-6911

CHEMTREC: 800-424-9300

SECTION I-IDENTIFICATION

PRODUCT: SOYGOLD® 2000
CAS No.: 67784-80-9
CHEMICAL: Fatty acid methyl esters
SYNONYMS: Methyl esters of soybean oil

SECTION II-INGREDIENTS AND HAZARD CLASSIFICATION

TYPICAL COMPOSITION	CAS	%
Alkyl C ₁₆ -C ₁₈ -Methyl Esters	67784-80-9	97-99
Surfactant	9016-45-9	1-3

SARA HAZARD: TITLE III SECTION 313: Not listed FIRE (Section 311/312): None noted

SECTION III-HEALTH INFORMATION

EFFECTS OF OVEREXPOSURE

INHALATION: No known problems
INGESTION: LD₅₀:>50ml/kg (albino rats)(similar products)
EYE CONTACT: Not classified as eye irritants
SKIN CONTACT: Not classified as a skin irritant or corrosive material

SECTION IV-OCCUPATIONAL EXPOSURE LIMITS

PEL: NO OSHA PEL TLV: NO ACCIH TLV

SECTION V-EMERGENCY FIRST AID PROCEDURE

FOLLOW STANDARD FIRST AID PROCEDURES

SWALLOWING: Call physician or poison control center.
SKIN CONTACT: Wash affected area.
EYE CONTACT: Flush eyes with cool water for at least 15 minutes. Do not let victim rub eyes.
INHALATION: Immediately remove victim to fresh air. Get medical attention immediately.

SECTION VI-PHYSICAL DATA

BOILING POINT: Over 600° F (315° C) at 760 mm Hg pressure
MELTING POINT: -1° C
VAPOR PRESSURE: 0.882 mm Hg at 25° C
SPECIFIC GRAVITY: 0.882 g/mL at 25° C
DIELECTRIC STRENGTH: >56.9
SOLUBILITY IN WATER: Negligible at room temperature
APPEARANCE AND COLOR: Light yellow to clear and liquid at room temperature
ODOR: Light vegetable oil odor

SECTION VII-FIRE AND EXPLOSION HAZARDS

FLASH POINT & METHOD USED: 425° F (218° C)(PMCC)
FLAMMABLE LIMITS: Not applicable
NFPA RATING: No NFPA rating

HMS RATING: HEALTH: 0 FIRE: 1 REACTIVITY: 0

AEF 12000

SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS

Treat as oil fire. Use water spray, dry chemical, foam or carbon dioxide.

UNUSUAL FIRE & EXPLOSION HAZARDS

Rags soaked with any solvent present a fire hazard and should always be stored in UL listed or Factory Mutual approved, covered containers. Improperly stored rags can create conditions that lead to oxidation. Oxidation, under certain conditions can lead to spontaneous combustion. This product contains antioxidants to retard oxidation.

SECTION VIII-REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: None likely
MATERIALS TO AVOID: Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS: CO₂, CO
CONDITIONS TO AVOID: None known

SECTION IX-EMPLOYEE PROTECTION

CONTROL MEASURES: Adequate ventilation
RESPIRATORY PROTECTION: None required
PROTECTIVE CLOTHING: No need anticipated
EYE PROTECTION: None required

SECTION X-ENVIRONMENTAL PROTECTION

ENVIRONMENTAL PRECAUTIONS: Avoid uncontrolled releases of this material into environment.
SPILL OR LEAK PRECAUTIONS: Contain spilled material. Transfer to secure containers. Where necessary, collect using absorbent media.
WASTE DISPOSAL: Dispose of according to federal, state and/or local requirements.

SECTION XI-REGULATORY CONTROLS

DOT CLASSIFICATION: Class 55
DOT PROPER SHIPPING NAME: Cleaning Compound, N.O.S.
OTHER REGULATORY REQUIREMENTS: Listed in TSCA inventory

SECTION XII-PRECAUTIONS: HANDLING, STORAGE AND USAGE

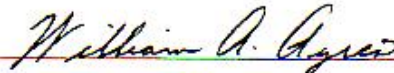
No special precautions necessary.

SECTION XIII-DATE AND SIGNATURE

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. The stated MSDS is reliable to the best of the company's knowledge and believed accurate as of the date indicated. However, no representation, warranty or guarantee of any kind, expressed or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

AG ENVIRONMENTAL PRODUCTS, L.L.C.
9804 PFLUMM
LENEXA, KS 66215

SIGNATURE: _____



PREPARED BY: WILLIAM A. AYRES REVISION DATE: 5-01-01

MSDS for Autowash #3

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade Name: SIEBERT AUTOWASH #3
Generic Name: Blanket Wash

CAS #: Proprietary Blend

Manufacturer: Siebert, Inc.
Address: 8134 West 47th Street
City: Lyons State: IL Zip: 60534

Emergency phone#: (800) 535-5053
Technical phone#: (708) 442-2010

DOT Hazard Classification: Not Regu
NFPA Codes: Health - 0 Flammability - 0 Reactivity - 0
HMIS Codes: Health - 1 Flammability - 0 Reactivity - 0 Personal Protection - B

II. HAZARDOUS INGREDIENTS

If present, IARC, NTP, and OSHA carcinogens and chemicals subject to the reporting requirements of SARA Title III Section 313 are identified in this section.

Ingredient Name	CAS Number	%wt	TLV	STEL	SARA TITLE III
Fatty esters	Various	70 to 90	None established	None established	No
Surfactants	Various	15 to 30	None established	None established	No

References: 29CFR 1910.1000, ACGIH "Threshold Limit Values for Chemicals in the Workplace", National Toxicology Program Annual Report, International Agency for Research on Cancer Monographs, and 40CFR Part 372. All components of this product are in compliance with TSCA.

III. PHYSICAL DATA

Boiling Point @ 760 mm Hg:	308 - 335°F
Vapor Pressure @ 80°F:	<0.1 mm Hg
Specific Gravity @ 68°F:	0.92
Water Solubility (%):	Insoluble
Specific Vapor Density (air=1):	<1.0
% Volatile by Volume:	<1.0
% Volatile Organic Compound(s):	<1.0
Appearance:	Clear golden liquid
Odor:	Typical organic odor

IV. FIRE AND EXPLOSION DATA

Flash Point (Method): >300°F (TCC)
Explosive Limit: LEL - N/E UEL - N/E
Extinguishing Media: Water fog, carbon dioxide, or dry chemical.
Special Fire Fighting Procedures: Wear self-contained breathing apparatus when fighting chemical fires.
Unusual Fire and Explosion Hazards: Fine sprays/mists may be combustible at temperatures below normal flash point. Rags soaked with material, stored for a long period while mixed with strong alkali or acidic materials, may smolder, then smoke, and may even ignite.

V. HEALTH HAZARD DATA

Eyes - May cause temporary irritation, redness, tearing, blurred vision. Contact lenses must not be worn when possibility exists for eye contact due to spraying liquid or airborne particles.
Skin - Prolonged or repeated contact may cause irritation.

SIEBERT AUTOWASH #3

Breathing - Excessive inhalation of vapors may cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.

Swallowing - Can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

First Aid/Emergency Procedures

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention.

Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

Eyes: Flush with copious amounts of water. Get medical attention.

Ingestion: Do not induce vomiting. If large quantity is swallowed, give lukewarm water (pint). NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Get medical attention immediately. Risk of damage to lungs exceeds poisoning risk.

Primary Entry Route(s): Inhalation, skin contact.

Chronic Health Effects: Chronic overexposure may aggravate existing skin, eye and lung conditions.

VI. REACTIVITY DATA

Stability: Stable.

Hazardous Polymerization: Cannot occur.

Incompatibilities: Avoid contact with strong oxidizing materials, strong alkalies, strong mineral acids.

Hazardous Decomposition Products: Carbon mono/di oxides.

Conditions to Avoid: None

VII. SPILL OR LEAK PROCEDURES

Procedures for Spill/Leak:

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks, etc.).

Small Spill - Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to a recovery drum.

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 recovery drums. Prevent run-off to sewers, streams or other bodies of water. Notify proper authorities, as required, that a spill has occurred.

Waste Management:

Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids at permitted sites. Avoid flameouts. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations.

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection:

If workplace exposure limit(s) of product is exceeded, a NIOSH/MSHA approved air supplied respirator is advised in the absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain minimum exposure.

Eye Protection: Chemical Splash Proof Goggles and full face shield are advised for operations where eye or face contact can occur.

Gloves: Wear impervious gloves.

Other Protective Equipment: To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

IX. SPECIAL PRECAUTIONS

SEBERT AUTOWASH #3

Special Handling/Storage:

To avoid skin contact and ingestion, wash hands and face well before eating or smoking. Do not permit food in work area. Avoid breathing mists if generated. Store at room temperature. Reseal container when not in use. Do not store near acids, bases or flammable liquids. Containers of this material should be rinsed when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in this data sheet must be observed.

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.

Date revised: 04/01/2001

jpm

MSDS for Mirachem NP 2520



Material Safety Data Sheet

Experimental Commercial Printing Cleaner NP 2520

(Formulation No. 2520)

Section I - Chemical Product and Company Identification

Manufacturer Name: Mirachem Corporation
P.O. Box 14059
Phoenix, Arizona 85063-4059

Date Prepared: 8/31/04
Revision Date: New

Emergency Phone: 1-(800) 847-3527

Section II - Composition/Information on Ingredients

<u>Hazardous Component (CAS #)</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Other Limits</u>	<u>% (Optional)</u>
None				

Section III - Hazards Identification

Emergency Overview: Clear, non-flammable, water based cleaner with a light citrus odor.

Potential Health Effects:

Eye Contact: May cause mild temporary irritation.

Skin Contact: Prolonged or repeated exposure may cause mild irritation.

Inhalation: No adverse effects expected.

Ingestion: No adverse health effects are anticipated to occur as a result of acute ingestion.
Chronic effects are not known.

Carcinogenicity: None of the components in this material are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

Signs/Symptoms of Overexposure: Prolonged contact may cause mild irritation or dryness to sensitive skin.

Medical Conditions Generally Aggravated by Exposure: None known.

Section IV - First Aid Measures

Eyes: Immediately flush with clean water. Consult physician if necessary.

Skin: Rinse with water.

Ingestion: If swallowed, treat symptomatically and supportively. Do not induce vomiting. If victim conscious and alert, give two glasses of water or milk to drink. If vomiting occurs, keep head below hips to prevent aspiration. Contact Physician.

Inhalation: No adverse effects anticipated.

Section V - Fire and Explosion Hazard

Flash Point (Method Used): >212°F (PMCC, nonflammable) Explosive Limits: N/A

Extinguishing Media: N/A

Special Fire Fighting Procedures: N/A Unusual Fire Fighting and Explosion Hazards: N/A

Section VI - Accidental Release

Small Spills: Flush with water into containing area or to sewer where applicable within Federal, State or Local disposal requirements.
Large Spills: Dike and pump into suitable containers, clean up residual with absorbent material and wash with water. Dispose of in accordance with Federal, State or Local disposal requirements.

Section VII - Handling & Storage

Handling & Storage Precautions: Wear protective goggles or face shield if splashing or spraying liquid. Protect from freezing.
Other Precautions: Keep container tightly closed. Keep out of reach of children.

Section VIII - Exposure Controls, Personal Protection

Respiratory Protection: No respiratory protection is necessary.
Ventilation: Good general ventilation is sufficient.
Protective Clothing: When prolonged skin contact is expected, wear protective gloves.
Eye Protection: Wear safety glasses.
Work/Hygienic Practices: Use good personal hygiene practices, wash hands before eating, drinking, smoking, or using toilet facilities.

Section IX - Physical/Chemical Characteristics

Boiling Point:	>210°F	Specific Gravity (H ₂ O = 1):	0.983
Vapor Pressure (mm Hg.) @ 20°C	Composite = 0.006	pH:	9.5 – 10.0
Vapor Density (AIR =1):	> 1	Evaporation Rate (Butyl Acetate = 1):	> 1
Solubility in Water:	Complete	Melting Point:	N/A
Appearance and Odor:	Clear liquid with a mild citrus odor		

N/A = Not Applicable N.E. = Not Established

Section X - Stability & Reactivity

Stability:	Unstable Stable X	Incompatibility (Materials to Avoid):	Strong Acids and Alkalies demulsify product.
Hazardous Decomposition or By-products:	Thermal decomposition may produce CO ₂		
Hazardous Polymerization:	May Occur	Will Not Occur	X

Section XI - Toxicological Information

No data currently available

Section XII - Ecological Information

No data currently available

Section XIII - Disposal Considerations

Waste Disposal: Flush uncontaminated material to sewer where applicable within Federal, State or Local
(Unused Material) disposal requirements.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, State and local waste disposal requirements may be more restrictive or otherwise different from Federal laws and regulations.

Section XIV - Transportation Information

D.O.T Shipping Name:	Not Regulated	D.O.T Hazard Class:	None
UN Shipping Name:	N/A	UN/NA Number:	N/A
UN Class or Division:	N/A	UN Packing Group:	None
NMFC Freight Class:	Compound, Cleaning Fluid, NOI 48580 Sub 3		

Section XV - US Regulatory Information

Notice: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, and local laws. The following specific information is made for the purpose of complying with numerous federal, state, and local laws and regulations.

Federal Regulations:

Workplace Classification This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200)

SARA Title III

Section 311/312 This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

Section 313 This product does not contain a chemical, which is listed in Section 313 at or above de minimis concentrations.

CERCLA Information (40CFR 302.4) Releases of this product to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

Waste Classification When a decision is made to discard unused portions of this product, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and none of the materials used in this product are listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, State and local waste disposal requirements may be more restrictive or otherwise different from Federal laws and regulations.

TSCA All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act.

NFPA Ratings	Health = 1	Flammability = 0	Reactivity = 0	Special = 0
NPCA-HMIS Ratings	Health = 1	Flammability = 0	Reactivity = 0	Protective Equipment = None

State Regulations:

Arizona

Maricopa County Under the definitions of Rule 331, this product is considered a Low-VOC Cleaner.

California

California Safe Drinking Water and Toxic Enforcement - Prop. 65 This product does not contain any materials currently listed by California as chemicals known to cause cancer or known to have reproductive toxicity under Proposition 65.

Volatile Organic Compounds (VOC) The VOC content of this product is 97 grams/liter (0.81 pounds/gallon) with a composite partial pressure at 20°C of less than 1mm Hg.

BAAQMD This product meets the requirements of the Bay Area Air Quality Management District Regulation 8, Rule 16 when used at a 1:1 dilution with water. The VOC content at this dilution is 48 grams/Liter (0.40 pounds/gallon) with a composite partial pressure at 20°C of less than 1 mm Hg.

SCAQMD This product, when used at normal use dilutions of 3:1 or greater meets the requirements of South Coast Air Quality Management District Rules 1122 and 1171. The VOC content at this dilution is 24 g/L (0.20 lbs./gal.) with a composite partial pressure at 20°C of less than 1 mm Hg.

Section XVI - International Regulatory Information

Notice: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warrantee, express or implied is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with their federal, state/province, and local laws. The following specific information is made for the purpose of complying with numerous specific foreign regulations.

Australia This product is not classified as hazardous according to criteria of Worksafe Australia. Mirachem has reviewed Australia's List of Hazardous Substances and Australia's Standard of the Uniform Scheduling of Drugs and Poisons and determined that no ingredient in this product is listed in either listing. We have also verified with NICNAS at the Australian National Occupational Health & Safety Commission (NOHSC) that all of the components in this formulation are listed in the Australian Inventory of Chemical Substances (AICS) and that no notification will be necessary under the Industrial Chemicals (Notification and Assessment) Act 1989.

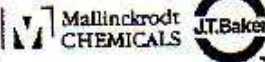
Canada Non-controlled under WHMIS.

European Union All materials in this formulation are EINECS listed. Not a hazardous preparation according to the EC-Directive 68/379/EEC.

MSDS for Acetone

MSDS Material Safety Data Sheet

From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865



24 Hour Emergency Telephone: 908-899-2151
CHEMTREC: 1-800-424-9300

National Response in Canada
CANUTEC: 619-496-4555

Outside U.S. and Canada
Chemtrec: 709-527-3887

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

All non-emergency questions should be directed to Customer Service (1-800-582-2537) for assistance.

ACETONE

MSDS Number: A0446 --- Effective Date: 04/10/01

1. Product Identification

Synonyms: Dimethylketone; 2-propanone; dimethylketal

CAS No.: 67-64-1

Molecular Weight: 58.08

Chemical Formula: (CH₃)₂CO

Product Codes:

J.T. Baker: 5356, 5580, 5805, 9001, 9002, 9003, 9004, 9005, 9006, 9007, 9008, 9009, 9010, 9015, 9036, 9125, 9254, 9271, A134, V655

Mallinckrodt: 0018, 2432, 2435, 2437, 2438, 2440, 2443, 2445, 2850, H451, H580, H981

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Acetone	67-64-1	99 - 100%	Yes

3. Hazards Identification**Emergency Overview**

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.

J.T. Baker SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 1 - Slight

<http://www.jtbaker.com/msds/A0446.htm>

8/15/02

Flammability Rating: 4 - Extreme (Flammable)
Reactivity Rating: 2 - Moderate
Contact Rating: 1 - Slight
Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER
Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:

Inhalation of vapors irritates the respiratory tract. May cause coughing, dizziness, dullness, and headache. Higher concentrations can produce central nervous system depression, narcosis, and unconsciousness.

Ingestion:

Swallowing small amounts is not likely to produce harmful effects. Ingestion of larger amounts may produce abdominal pain, nausea and vomiting. Aspiration into lungs can produce severe lung damage and is a medical emergency. Other symptoms are expected to parallel inhalation.

Skin Contact:

Irritating due to defatting action on skin. Causes redness, pain, drying and cracking of the skin.

Eye Contact:

Vapors are irritating to the eyes. Splashes may cause severe irritation, with stinging, tearing, redness and pain.

Chronic Exposure:

Prolonged or repeated skin contact may produce severe irritation or dermatitis.

Aggravation of Pre-existing Conditions:

Use of alcoholic beverages enhances toxic effects. Exposure may increase the toxic potential of chlorinated hydrocarbons, such as chloroform, trichloroethane.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.

5. Fire Fighting Measures

Fire:

Flash point: -20C (-4F) CC

Autoignition temperature: 465C (869F)

Flammable limits in air % by volume:

lcl: 2.5; ucl: 12.8

Extremely Flammable Liquid and Vapor! Vapor may cause flash fire.

Explosion:

Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated. This material may produce a floating fire hazard. Sensitive to static discharge.

Fire Extinguishing Media:

Dry chemical, alcohol foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

J. T. Baker SOLUSORB(R) solvent adsorbent is recommended for spills of this product.

7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

Acetone:

-OSHA Permissible Exposure Limit (PEL):

1000 ppm (TWA)

-ACGIH Threshold Limit Value (TLV):

500 ppm (TWA), 750 ppm (STEL) A4 - not classifiable as a human carcinogen

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, a half-face organic vapor respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest.

A full-face piece organic vapor respirator may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin

contact.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

Clear, colorless, volatile liquid.

Odor:

Fragrant, mint-like

Solubility:

Miscible in all proportions in water.

Specific Gravity:

0.79 @ 20C/4C

pH:

No information found.

% Volatiles by volume @ 21C (70F):

100

Boiling Point:

56.5C (133F) @ 760 mm Hg

Melting Point:

-95C (-139F)

Vapor Density (Air=1):

2.0

Vapor Pressure (mm Hg):

400 @ 39.5C (104F)

Evaporation Rate (BuAc=1):

ca. 7.7

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Concentrated nitric and sulfuric acid mixtures, oxidizing materials, chloroform, alkalis, chlorine compounds, acids, potassium t-butoxide.

Conditions to Avoid:

Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

Oral rat LD50: 5800 mg/kg; Inhalation rat LC50: 50,100mg/m3; Irritation eye rabbit, Standard Draize, 20 mg severe; investigated as a tumorigen, mutagen, reproductive effector.

-----\Cancer Lists\-----

Ingredient	---NF? Carcinogen---		IARC Category
	Known	Anticipated	
Acetone (67-64-1)	No	No	None

12. Ecological Information

Environmental Fate:

When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material is expected to readily biodegrade. When released to water, this material is expected to quickly evaporate. This material has a log octanol-water partition coefficient of less than 3.0. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be moderately degraded by photolysis. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.

Environmental Toxicity:

This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/l.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: ACETONE
 Hazard Class: 3
 UN/NA: UN1090
 Packing Group: II
 Information reported for product/size: 350LB

International (Water, I.M.O.)

Proper Shipping Name: ACETONE
 Hazard Class: 3
 UN/NA: UN1090
 Packing Group: II
 Information reported for product/size: 350LB

15. Regulatory Information

Ingredient	-----\Chemical Inventory Status - Part 1\-----			
	TSCA	EC	Japan	Australia

<http://www.jtbaker.com/msds/A0446.htm>

8/15/02

Acetone (67-64-1)	Yes	Yes	Yes	Yes
-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	--Canada--		Phil.
		DSL	NDSL	
Acetone (67-64-1)	Yes	Yes	No	Yes
-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-		-SARA 313-	
	RQ	TPQ	List	Chemical Catg.
Acetone (67-64-1)	No	Yes	Yes	No
-----\Federal, State & International Regulations - Part 2\-----				
Ingredient	CERCLA	-RCRA-	-TSCA-	
		261.33	8(d)	
Acetone (67-64-1)	5000	0002	No	
Chemical Weapons Convention: No TSCA 12(b): Yes CDTA: Yes				
SARA 311/312: Acute: Yes Chronic: No Fire: Yes Pressure: No				
Reactivity: No (Pure / Liquid)				

Australian Hazchem Code: 2[Y]E

Poison Schedule: No information found.

WHMIS:

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings: Health: 1 Flammability: 3 Reactivity: 0

Label Hazard Warning:

DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.

Label Precautions:

Keep away from heat, sparks and flame.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Avoid breathing vapor.
Avoid contact with eyes, skin and clothing.

Label First Aid:

Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

Product Use:

Laboratory Reagent.

Revision Information:

No changes.

Disclaimer:

<http://www.jtbaker.com/msds/A0446.htm>

8/15/02

MSDS for VM&P

MATERIAL SAFETY DATA SHEET

DATE PRINTED: 9/16/1999 PAGE 1
 00000000 ARPIL MILLER MSDS NO. 1650

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

MANUFACTURERS NAME ADDRESS
 W.M. BARR & COMPANY, INC. 2105 Channel Ave.
 Memphis, TN 38113 USA
 EMERGENCY TELEPHONE #1 EMERGENCY CONTACT
 901-775-0100 W.M. Barr Technical Serv.
 EMERGENCY INFORMATION
 See Section 5 for additional Emergency Information
 INVENTORY ITEM # CHEMICAL FORMULA
 G22701 1650
 PRODUCT NAME
 ALLPRO VM&P NAPHTHA
 REVISED BY REVISION DATE
 W.M. Barr Technical Services 7/20/1992

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE DESCRIPTION	PERCENT	CAS#	CARCINOGENICITY			
			NTP	ACGIH	OSHA	IARC
ALIPHATIC PETROLEUM DISTILLATE	95-100	64742-89-8	N	N	N	N
** ABOVE INGREDIENT CONSISTS OF THE FOLLOWING **						
VM&P NAPHTHA	95-100	8032-32-4	N	N	N	N

SECTION 3. REGULATORY INFORMATION

SUBSTANCE DESCRIPTION	EXPOSURE LIMITS/REGULATORY INFORMATION						
	REG. ACCY	O/M	TWA	STEL	CELL	SKIN	PEL
ALIPHATIC PETROLEUM DISTILLATE							
	ACGIH	PPM	N/E	N/E	N/E	N	N/E
	OSHA	PPM	N/E	N/E	N/E	N	N/E
VM&P NAPHTHA	ACGIH	PPM	300.00	N/E	N/E	N	N/E
	OSHA	PPM	300.00	400.00	N/E	N	N/E

ADDITIONAL REGULATORY INFO
 The time weighted average (TWA) value described herein is a threshold limit value (TLV) as established by ACGIH. The permissible exposure limit (PEL) is a value established by OSHA, CALIFORNIA (PROPOSITION #65);
 Ingredients in this product are not listed on California's Prop 65 list: "Chemicals Known to the State to Cause Cancer or Reproductive Toxicity."
 SEC. 313 SUPPLIER NOTIFICATION
 The following information must be included in all MSDS that are copied and distributed for this material.
 This product contains no chemicals subject to the reporting requirements of SARA III: Section 313.

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 MSDS NO. 1650

SECTION 3. REGULATORY INFORMATION
 (CONTINUED)

CLEAN AIR ACT

This formula contains no known ozone depleting chemicals.

HAZARD COMMUNICATION STANDARD

This document is prepared in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200). This MSDS contains thirteen (13) sections.

The following effects and/or symptoms are not expected to be experienced by persons who use this product properly and according to ALL instructions, precautions, and warnings; however, should the product user experience ANY questionable effects or symptoms, the product user should immediately seek medical attention.

SECTION 4. HAZARDS IDENTIFICATION

INHALATION ACUTE EXPOSURE EFFECTS

May cause dizziness, headache, watering of eyes, irritation of respiratory tract, drowsiness, nausea, and light headedness. Severe overexposure may cause unconsciousness.

SKIN CONTACT ACUTE EXPOSURE EFFECTS

None known.

EYE CONTACT ACUTE EXPOSURE EFFECTS

May cause irritation.

INGESTION ACUTE EXPOSURE EFFECTS

Harmful or fatal if swallowed. May cause nausea, vomiting, gastrointestinal irritation, and diarrhea.

CHRONIC EXPOSURE EFFECTS

Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. May cause skin irritation.

MEDICAL CONDITIONS AGGRAVATED

None known.

PRIMARY ROUTE OF EXPOSURE

Inhalation, ingestion, and dermal.

SECTION 5. FIRST AID MEASURES

INHALATION

If user experiences breathing difficulty, move to air free of vapors. Administer oxygen or artificial respiration until medical assistance can be rendered.

SKIN CONTACT

Wash with soap and water.

EYE CONTACT

Flush with large quantities of water for at least 15 minutes. If irritation from contact persists, get medical attention.

INGESTION

DO NOT induce vomiting. Call your poison control center, hospital.

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MSDS NO. 1650

SECTION 5. FIRST AID MEASURES
(CONTINUED)

emergency room, or physician immediately.

NOTE TO PHYSICIAN

This formula is registered with POISINDEX.

Call your local poison control center for further information.

SECTION 6. FIRE FIGHTING MEASURES

HAZARD RATING SOURCE	HMIS	NFPA
HEALTH	2	1
FLAMMABILITY	3	3
REACTIVITY	0	0
OTHER	G	NA

FLASH METHOD
TCC
FLASH POINT
50.00 F 10.00 C
LOWER EXPLOSION LIMIT
C.9

GENERAL COMMENTS

CSHA FLAMMABILITY: Class 1B

EXTINGUISHING METHOD

Use carbon dioxide, dry powder, or foam.

FIRE FIGHTING PROCEDURES

Self-contained respiratory protection should be provided for fire fighters fighting fires in buildings or confined areas. Storage containers exposed to fire should be kept cool with water spray to prevent pressure build-up. Stay away from heads of containers that have been exposed to intense heat or flames.

FIRE AND EXPLOSION HAZARDS

DANGER! FLAMMABLE. KEEP AWAY FROM HEAT, SPARKS, FLAME, AND ALL OTHER SOURCES OF IGNITION. Do not smoke.

Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and all other sources of ignition during use and until all vapors are gone. Beware of static electricity that may be generated by synthetic clothing and other sources.

SECTION 7. ACCIDENTAL RELEASE MEASURES

CLEAN-UP

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, out of low areas, and ventilate closed spaces before entering. Shut off ignition sources; keep flames, smoking or flames out of hazard area. SMALL SPILLS: take up liquid with sand, earth or other noncombustible absorbent material and place in a plastic container where applicable. LARGE SPILLS: dike far ahead of spill for later disposal.

For transportation related spills contact Chemtrec at 1-800-424-9300 for emergency assistance.

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SECTION 7. ACCIDENTAL RELEASE MEASURES
(CONTINUED)

WASTE DISPOSAL

Dispose in accordance with applicable local, state and federal regulations.

SECTION 8. HANDLING AND STORAGE

STORAGE

Keep container tightly closed when not in use. Store in a cool, dry place. Do not store near flames or at elevated temperatures.

HANDLING

Read carefully all cautions and directions on product label before use. Since empty container retains residue, follow all label warnings even after container is empty. Dispose of empty container

according to all regulations. Do not reuse this container.

SECTION 9. TRANSPORT INFORMATION

TRANSPORTATION

For D.O.T. information, contact W.M. Barr Technical Services Department.

SECTION 10. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION PROTECTION

Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, or eye-watering - STOP - ventilation is inadequate. Leave area immediately.

RESPIRATORY PROTECTION

For OSHA controlled work place and other regular users - Use only with adequate ventilation under engineered air control systems designed to prevent exceeding appropriate TLV. For occasional use, where engineered air control is not feasible, use properly maintained and properly fitted NIOSH approved respirator for organic solvent vapors. A dust mask does not provide protection against vapors.

SKIN PROTECTION

Wear impermeable gloves. Gloves contaminated with product should be discarded. Promptly remove clothing that becomes soiled with product.

EYE PROTECTION

Safety glasses, chemical goggles or face shields are recommended to safeguard against potential eye contact, irritation, or injury. Contact lenses should not be worn while working with chemicals.

OTHER PROTECTION

Various application methods can dictate use of additional protective safety equipment, such as impermeable aprons, etc., to minimize exposure. A source of clean water should be available in the work

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SECTION 10. EXPOSURE CONTROLS/PERSONAL PROTECTION
(CONTINUED)

area for flushing eyes and skin. Do not eat, drink, or smoke in the work area. Wash hands thoroughly after use. Before reuse, thoroughly clean any clothing or protective equipment that has been contaminated by prior use. Discard any clothing or other protective equipment that cannot be decontaminated, such as gloves or shoes.

SECTION 11. PHYSICAL AND CHEMICAL PROPERTIES

VOLATILE %: 100.000 by weight
BOILING POINT: GT 242.00 F 116.66 C
BOILING RANGE: 242 F - 300 F
VAPOR DENSITY (Air = 1.0):
Heavier than air
EVAPORATION RATE
Slower than ether
BULK DENSITY: 6.250
lbs/gal at 75 F
PHOTOCHEMICALLY REACTIVE: NO

MAX V.O.C.
749 grams per liter (excluding exempt solvents & water)
MAX VAPOR PRESSURE
(of the V.O.C.) 13mm Hg at 20 degrees C

SECTION 12. STABILITY AND REACTIVITY

INCOMPATIBILITIES

Incompatible with strong oxidizing agents.

DECOMPOSITION

Decomposition may produce carbon monoxide and carbon dioxide.

POLYMERIZATION: Will not occur.

STABILITY: Stable.

SECTION 13. ADDITIONAL INFORMATION

IMPORTANT NOTE

The information contained herein is presented in good faith and believed to be accurate as of the effective date shown above. This information is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. Any use of this data and information must be determined by the user to be in accordance with applicable federal, state and local laws and regulations.

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SECTION 13. ADDITIONAL INFORMATION

LEGEND:

PPM - parts per million

MG/M3 - milligrams per cubic meter

N/E or NE - none established

GT - greater than

N/A or NA - not applicable

TCC = tag closed cup

TOC = tag open cup

PMCC - Pinsky-Martens closed cup

IDLH - Immediately Dangerous to Life and Health

MSDS for EEP

EASTMAN

MATERIAL SAFETY DATA SHEET

Revision Date: 07/15/2004

MSDSANSI/ANSI/EN/150000001149/Version 12.0

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Eastman(TM) EEP Solvent
Product Identification Number(s)	12470-00, P1247000, P1247001, P1247002, P1247003, P1247004, P1247005, P1247006, P1247007, P1247008, P1247010, P1247009, P12470M2, P12470M4, P1247011
Manufacturer/Supplier	Eastman Chemical Company Eastman Road Kingsport, TN 37662 US
MSDS Prepared by	Eastman Product Safety and Health
Chemical Name	3-ethoxypropanoic acid, ethyl ester
Synonym(s)	12470-00 970309
Molecular Formula	C7H14O3
Molecular Weight	146.19
Product Use	solvent
OSHA Status	hazardous

For emergency health, safety & environmental information, call 800-EASTMAN.

For emergency transportation information, call CHEMTREC at 800-424-9300 or call 800-EASTMAN.

2. COMPOSITION INFORMATION ON INGREDIENTS

(Typical composition is given, and it may vary. A certificate of analysis can be provided, if available.)

Weight %	Component	CAS Registry No.
>99.5%	ethyl 3-ethoxypropionate	783-69-9
<0.02%	formaldehyde	50-00-0
<0.02%	butylated hydroxytoluene (as inhibitor)	128-37-0

3. HAZARDS IDENTIFICATION

CAUTION!
COMBUSTIBLE LIQUID AND VAPOR
FORMS PEROXIDES IF MATERIAL BECOMES UNINHIBITED
HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS

HMIS® Hazard Ratings: Health - 1, Flammability -2, Chemical Reactivity - 1

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

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MATERIAL SAFETY DATA SHEET

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4. FIRST-AID MEASURES

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eyes: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin: Wash with soap and water. Get medical attention if symptoms occur.

Ingestion: Seek medical advice.

5. FIRE FIGHTING MEASURES

Extinguishing Media: water spray, carbon dioxide, dry chemical, foam

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool. **USE WATER WITH CAUTION.** Material will float and may ignite on surface of water. Water may be ineffective in fighting the fire. The fire could easily be spread by the use of water in an area where the water could not be contained.

Hazardous Combustion Products: carbon dioxide, carbon monoxide

Unusual Fire and Explosion Hazards: Forms peroxides of unknown stability if material becomes uninhibited. Combustible.

6. ACCIDENTAL RELEASE MEASURES

Use personal protective equipment. Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

For Large Spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. HANDLING AND STORAGE

Personal Precautionary Measures: Avoid breathing high vapor concentrations. Use only with adequate ventilation. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep away from heat and flame. Keep from contact with oxidizing materials. Keep inhibited. Minimize exposure to air. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. If peroxide formation is suspected, do not open or move container. Do not allow to evaporate to near dryness. Do not distill to near dryness.

Storage: Keep container closed.

Additional Information: Store away from heat and light.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Country specific exposure limits have not been established or are not applicable unless listed below.

ETHYL 3-ETHOXYPROPIONATE

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MATERIAL SAFETY DATA SHEET

Revision Date: 07/15/2004

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Eastman Chemical Company occupational exposure limit:

Time Weighted Average (TWA): 50 ppm,

Eastman Chemical Company occupational exposure limit:

Short Term Exposure Limit (STEL): 100 ppm,

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Eye Protection: It is a good industrial hygiene practice to minimize eye contact.

Recommended Decontamination Facilities: eye bath, washing facilities

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: liquid

Color: colorless

Odor: ester, pungent

Odor Threshold: 0.02 ppm

Specific Gravity: 0.95 (20 °C)

Vapor Pressure: 25 °C; 2.0 mbar

Vapor Density: 5.0

Freezing Point: <-50 °C

Boiling Point: 165 °C

Evaporation Rate: 0.12 (n-butyl acetate = 1)

Viscosity: 1.20 mPa.s (25 °C),

Solubility in Water: 29 g/l

Octanol/Water Partition Coefficient: P: 22.4; log P: 1.35

Flash Point: 59 °C (Setaflash closed cup)

Autoignition Temperature: 377 °C (ASTM E659)

Thermal Decomposition Temperature: (HPDTA) No exotherm to 400°C

10. STABILITY AND REACTIVITY

Stability: Stable. Forms peroxides if material becomes uninhibited.

Incompatibility: Material reacts with strong oxidizing agents.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

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Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

Oral LD-50:(male rat)	>5,000 mg/kg(highest dose tested)
Oral LD-50:(female rat)	4,300 mg/kg
Inhalation LC-50: (rat)	6 hours: > 1000 ppm (highest concentration tested)
Dermal LD-50: (guinea pig)	> 20 ml/kg (highest dose tested)
Skin Irritation (guinea pig)	slight
Eye Irritation (rabbit)	slight
Skin Sensitization: (guinea pig)	none

12. ECOLOGICAL INFORMATION

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

This material is readily biodegraded and is not likely to bioconcentrate.

Oxygen Demand Data:

BOD-5: 370 mg/g
BOD-20: 560 mg/g

COD: 1,920 mg/g
ThBOD: 1,970 mg/g

Acute Aquatic Effects Data:

96 h LC-50 (fathead minnow): 50 mg/l NOEC: 25 mg/l
48 h EC-50 (Daphnia magna): > 480 mg/l NOEC: 470 mg/l
72 h EC-50 (Selenastrum capricornutum): > 115 mg/l

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

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DOT (USA)

Class combustible liquid, Packing group III for quantities of 450 liters (119 gallons) or more; not regulated for smaller quantities

0

Marine pollutant:

Possible Shipping Description(s):

not regulated

Esters, n.o.s. (ethyl 3-ethoxypropionate)
combustible liquid UN III

Esters, n.o.s. (ethyl 3-ethoxypropionate)
combustible liquid UN 3272 III

Sea - IMDG (International Maritime Dangerous Goods)

Possible Shipping Description(s):

ESTERS, N.O.S. (ethyl 3-ethoxypropionate)
3 UN 3272 III

Air - ICAO (International Civil Aviation Organization)

Possible Shipping Description(s):

Esters, n.o.s. (ethyl 3-ethoxypropionate)
3 UN 3272 III

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/3

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SARA 311-312 Hazard Classification(s):
fire hazard
reactive hazard

SARA 313: none, unless listed below

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL. Any impurities present in this product are exempt from listing.

EINECS (European Inventory of Existing Commercial Chemical Substances): This product is listed on EINECS or otherwise complies with EINECS requirements.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean Inventory or otherwise complies with the Korean Toxic Substances Control Act.

16. OTHER INFORMATION

Visit our website at www.EASTMAN.com or call 001-423-229-2000.

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment.

Highlighted areas indicate new or changed information.

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MSDS for Brulin GD 1990

PRODUCT NAME: BRULIN 1990 GD
PRODUCT NUMBER: 301008

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MATERIAL SAFETY DATA SHEET

Per 29 CFR 1910.1200

DATE PREPARED : 10/24/02

SECTION I.

BRULIN & COMPANY, INC. P.O. BOX 270, INDIANAPOLIS, IN 46206-0270 (317) 923-3211

WEST COAST FACTORY
Richmond, California

24 HOUR EMERGENCY NUMBER
CHEMTREC 1-800-424-9300

IDENTITY (As listed on label):
BRULIN 1990 GD

Health: 1
HMIS HAZARD RATINGS: Flammability: 0
Reactivity: 0

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components (Specific Chemical Identity, Common Name(s))	CAS #	OSHA PEL	ACGIH TLV-TWA	OTHER LIMITS RECOMMENDED	PERCENT
--	-------	----------	------------------	-----------------------------	---------

This product contains no hazardous chemical substances at 1.0% or more listed in 29 CFR 1910.1203 or ACGIH Threshold Limit Values. Also, this product contains no carcinogens at 0.1% or more listed in NTP Annual Report on Carcinogens, IARC Monographs, or 29 CFR 1910.1203. No components of this product are subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	212 F	Specific Gravity (H ₂ O=1):	1.067
Vapor Pressure (mm Hg):	Approx. 17 @ 88 F.	Melting Point:	Approx. 30 F
Vapor Density (Air=1):	Approx. 0.6	Evaporation Rate (water=1):	1.0
Solubility in Water:	Complete		
Appearance and Odor:	Water white, mild odor.		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): None
Flammable Limits: LEL NA UEL NA
Extinguishing Media: None
Special Fire Fighting Procedures: Full protective equipment including self-contained breathing apparatus should be used. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Get medical attention. Water may be used to cool and protect closed containers exposed to extreme heat.
Unusual Fire and Explosion Hazards: None known. Closed containers may explode (due to build-up of pressure) when exposed to extreme heat.

SECTION V - REACTIVITY DATA

Stability Unstable Stable
Conditions to Avoid: Freezing
Incompatibility (Materials to Avoid): Strong acids and oxidizers.
Hazardous Decomposition or Byproducts: Carbon monoxide, Carbon dioxide, and oxides of sulfur.
Hazardous Polymerization: May Occur May Not Occur
Conditions to Avoid: None

SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry: Ingestion? No Skin? Yes Inhalation? No Eyes? Yes
Health Hazards (Acute and Chronic): Direct eye contact and prolonged or repeated skin contact may cause irritation seen as redness.
Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No
Signs and Symptoms of Exposure: Irritation as noted above.
Medical Conditions Generally Aggravated by Exposure: None Known
Emergency & First Aid Procedures:
Eye Contact: Flush with large amounts of water for 15 min, lifting upper & lower lids occasionally. Get medical attention.
Inhalation: Remove to fresh air.
Skin Contact: Wash with mild soap and water. Remove contaminated clothing and launder before reuse. If irritation persists, consult a physician.
Ingestion: If conscious, dilute by giving 2 glasses of water. Get immediate medical attention.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled: Absorb on solid absorbent and shovel into containers for disposal.
Waste Disposal Method: Dispose according to Federal, State and Local Laws and 40 CFR.
Precautions to be Taken in Handling and Storing: Store between 40 and 110 F.

SECTION VIII - CONTROL MEASURES

Respiratory Protection (Specify Type): Not normally required. However, if potential for overexposure exists, wear a NIOSH/MSHA approved respirator.
Ventilation: Mechanical (General): Sufficient
Protective Gloves: Recommended (Rubber)
Eye Protection: Safety glasses, safety goggles, or full face shield recommended.
Other Protective Clothing or Equipment: Sufficient to minimize skin contact.
Work/Hygienic Practices: Use only with adequate ventilation. Avoid breathing vapor and mist. Avoid contact with skin and eyes. Do not take internally. Wash thoroughly after handling.

MSDS for Ardrex 405-V

Chemetall Oakite

ARDROX 405-V
GENERAL PURPOSE CLEANER

OAKITE PRODUCTS, INC.
A MEMBER OF THE CHEMETALL GROUP
50 VALLEY ROAD, BERKELEY HEIGHTS, NJ 07922
(800) 526-4473 / (908) 464-6900

CHEMTREC EMERGENCY TELEPHONE: 800-424-9300

I. HAZARDOUS INGREDIENTS:

COMPONENT(S):	WT %	CAS NO.	EXPOSURE LIMITS TO AIR	
			ACGIH TLV	OSHA PEL
Propylene Glycol	<10	5131-66-8	ND	ND
n-Butyl Ether				
Tall Oil	3-5	8002-26-4	5 mg/m ³	5 mg/m ³
Alkyl Phenol Ethoxylate	4-6	9016-45-9	ND	ND
Monoethanolamine	1-2	141-43-5	3 ppm	3 ppm

*Subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40CFR Part 372.

II. PHYSICAL DATA:

MELTING POINT: Approx. 32^oF
BOILING Point: Approx. 212^oF
VAPOR PRESSURE (mm Hg): Similar to water
VAPOR DENSITY (Air=1): >1
ODOR: Mild solvent odor
VOC (GM/L): 76

SPECIFIC GRAVITY: 1.01
SOLUBILITY IN WATER: Complete
EVAPORATION RATE (BuAc=1): <1
PH: (50% SOLN): 12.6
APPEARANCE: Blue liquid
VAPOR PRESSURE OF VOC (MMHG): <1

III. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: >200^oF
AUTOIGNITION TEMPERATURE: ND
FLAMMABLE LIMITS: UPPER: ND
EXTINGUISHING MEDIA: Dry Chemical, CO₂.

METHOD USED: P.M.C.C.
LOWER: ND

FIRE AND EXPLOSION HAZARDS:
Moderate fire hazard when exposed to heat or flame.

SPECIAL FIRE FIGHTING PROCEDURES:
Wear self-contained breathing apparatus. Use water to keep fire-exposed containers cool and to flush spills away from fire. In the case of large fires also cool surrounding equipment and structures with water.

IV. REACTIVITY:

STABILITY: Stable
CONDITIONS TO AVOID: See Below

MATERIAL SAFETY DATA SHEET

-1-

ARDROX 405-V

GENERAL PURPOSE CLEANER

HAZARDOUS POLYMERIZATION: Will Not Occur

INCOMPATIBILITY:

Strong oxidizing and reducing agents. Strong acids. Strong alkalis (such as sodium hydroxide), and alkali metals. Reactive metals.

HAZARDOUS DECOMPOSITION PRODUCTS:

Acrid smoke. Toxic fumes of carbon oxides and nitrogen oxides on combustion. Organic compounds on combustion.

=====
V. ENVIRONMENTAL AND DISPOSAL INFORMATION:
=====

ACTION TO TAKE FOR SPILLS/LEAKS

CAUTION:

Use appropriate protective and safety equipment. See Section VIII of this Material Safety Data Sheet for handling precautions.

SMALL SPILL:

Mop up or soak up with non-combustible absorbent inorganic material. Transfer to DOT-approved container.

LARGE SPILL:

Evacuate spill area of unprotected personnel. Contain by diking with non-combustible absorbent inorganic material. Prevent runoff from entering sewers, storm drains, surface water, and soil. Transfer contaminated absorbent to a DOT-approved container.

WASTE DISPOSAL INFORMATION:

Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures.

NOTE:

Comply with all applicable government regulations on spill reporting and handling and disposal of waste. Empty containers can have residues, gases, and mists, and are subject to proper waste disposal.

=====
VI. HEALTH HAZARD DATA:
=====

ROUTES OF ENTRY:

BREATHED:

A single prolonged (hours) exposure of one component may cause respiratory irritation. High vapor concentrations are irritating to the nose, throat, mucous membrane, and lungs, may cause headaches, dizziness, sleep (anesthesia) and may have other CENTRAL NERVOUS SYSTEM effects.

SKIN CONTACT:

SKIN ABSORPTION:

Component(s) are readily absorbed through the skin and are moderately toxic. Effects may be similar to those described under other categories in this section.

ARDROX 405-V
GENERAL PURPOSE CLEANER

EYE CONTACT:

May cause severe irritation with corneal injury which may result in permanent impairment of vision or even blindness.

SWALLOWED:

A component(s) of this product is toxic. Swallowing a component(s) may cause burns of the mouth and throat and irritation or ulceration to the stomach and intestines. Swallowing a component(s) may cause headache, nausea, vomiting, weakness.

SYSTEMIC AND OTHER EFFECTS:

Repeated excessive exposure may injure the LIVER and KIDNEY.

MEDICAL CONDITIONS AGGRAVATED:

Component(s) of this product may aggravate pre-existing lung (pulmonary) disease. Persons with pre-existing skin conditions may be susceptible to the effects of a component(s) of this product.

SUSPECTED CANCER AGENT: No

FEDERAL OSHA	CA OSHA	NTP	IARC
No	No	No	No

TARGET ORGANS, OTHER THAN THOSE IMPLIED BY ROUTES OF ENTRY (I.E., BREATHED, INCLUDES RESPIRATORY TRACT AND LUNGS) ARE CAPITALIZED. CALIFORNIA ONLY: PROPOSITION 65

This product contains a chemical(s) known to the State of California to cause cancer or reproductive toxicity. These are trace amounts found in normal technical grade industrial materials and are not deliberately added to the product.

VII. FIRST AID:

BREATHED:

Remove victim to fresh air at once. If not breathing, give mouth-to-mouth resuscitation. If breathing is difficult, GET IMMEDIATE MEDICAL ATTENTION. Keep victim warm and at rest.

SKIN:

Wash skin immediately with lots of soap and water. If clothes and shoes are contaminated, remove and wash before reuse. Get medical attention if ill effect or irritation develops.

EYES:

Wash eyes immediately with running water for at least 20 minutes. Use fingers to assure that eyelids are separated and that eye is being washed. Lift the lower and upper lid occasionally. GET IMMEDIATE MEDICAL ATTENTION.

SWALLOWED:

ARDROX 405-V
GENERAL PURPOSE CLEANER

DO NOT INDUCE VOMITING. If vomiting spontaneously occurs, do not allow vomitus to be breathed into lungs. Keep victim's head below his hips. Call a physician and/or transport to emergency medical facility immediately. The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Corrosive: May cause stricture. If victim is conscious, give large amounts of water. Do not attempt to give fluids to unconscious victim.

NOTE TO PHYSICIAN:

Supportive care: Treatment based on judgement of physician in response to reactions of patient. If burn is present, treat as thermal burn after decontamination. No specific antidote.

=====
VIII. HANDLING PRECAUTIONS:
=====

VENTILATION:

Control airborne concentrations below exposure guidelines (Section I) with MECHANICAL VENTILATION, if necessary. Local explosion-proof EXHAUST VENTILATION may be necessary for some operations.

RESPIRATORY PROTECTION:

Atmospheric levels should be maintained below exposure guidelines. When respiratory protection is required for certain operations, use a MSHA/NIOSH approved filter type respirator used in accordance with the requirements of 29 CFR 1910.134. In confined or poorly ventilated areas or for emergency and other conditions where the exposure guidelines may be greatly exceeded, use an approved positive-pressure, self-contained breathing apparatus or air line supplied respirator.

EYE PROTECTION:

Contact lenses should not be used. Suggested protection is safety glasses, but where contact with liquid is likely, chemical goggles and face shields are recommended.

SKIN PROTECTION:

Impermeable gloves are recommended. When prolonged or frequently repeated contact could occur, use protective clothing. Selection of specific items such as boots, apron, or full-body suit will depend on operation. Wash thoroughly after handling chemicals.

SPECIAL EQUIPMENT:

Suitable laboratory safety equipment includes safety showers, eye washes, and proper fire extinguishing media.

=====
IX. STORAGE AND HANDLING:
=====

ARDROX 405-V

GENERAL PURPOSE CLEANER

Train all employees on all special handling procedures in this section before they work with this product. Exercise reasonable care and caution. Personnel should avoid breathing vapors and/or mists and getting product in the eyes or on the skin. DO NOT CONSUME food, drink, or tobacco in areas where they may become contaminated with this material. Keep containers cool, dry, and away from sources of ignition. DO NOT STORE product in direct sunlight, high temperature, or below freezing areas. Keep product container tightly closed when not in use. Protect containers from physical damage. Use and store with adequate ventilation. DO NOT cut, grind, weld or drill on or near this container. Wash thoroughly after using. Concentrated vapors of this product are heavier than air and will collect in low areas such as pits, degreasers, storage tanks, and other confined areas. DO NOT ENTER these areas where vapors of this product are suspected unless special breathing apparatus is used and an observer similarly equipped is present for assistance.

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X. DOT INFORMATION

NON-REGULATED BY CFR 49 172.101

=====

XI. OTHER SAFETY AND REGULATORY INFORMATION

=====

HMIS CODES

2	HMIS HEALTH	0	HMIS FLAMMABILITY
0	REACTIVITY	C	HMIS PERSONAL PROTECTION

SARA TITLE III, SECT 302-304:
THRESHOLD PLANNING QUANTITY (TPQ) None
REPORTABLE QUANTITY (RQ): None

SARA TITLE III, SECTION 311-12: Chronic

=====

XII. NAME OF PREPARER-DATE FIRST PREPARED-DATE REVISED

=====

NAME OF PREPARER:	MICHAEL CHANG
DATE PREPARED	Oct 29, 1993
REVISED DATE	June 10, 1996

None Abbreviations: NA:Not Applicable; ND:Not Determined.
THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH, BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE. Since buyer's conditions of use are beyond Oakite's control, Oakite does not warrant any recommendations and information for the use of such products.

MSDS for White Oil



CITGO Duoprime® Oil 70

Material Safety Data Sheet



CITGO Petroleum Corporation
P.O. Box 3758
Tulsa, OK 74102-3758

MSDS No. 669347001

Revision Date 05/02/2002

IMPORTANT: Read this MSDS before handling or disposing of this product and pass this information on to employees, customers, and users of this product.

Emergency Overview			
Physical State	Liquid.		
Color	Colorless.	Odor	Odorless.
<p>Not expected to present a hazard under anticipated conditions of use. If liquid material is swallowed, contact a physician. Do not induce vomiting. If liquid material enters the lungs, it can cause severe damage. Spills may create a slipping hazard.</p>			

Hazard Rankings		
	HMIS	NFPA
Health Hazard	0	0
Fire Hazard	1	1
Reactivity	0	0
* = Chronic Health Hazard		
Protective Equipment		
Minimum Requirements See Section 8 for Details		
 		

SECTION 1: IDENTIFICATION

Trade Name	CITGO Duoprime® Oil 70	Technical Contact	(800) 248-4564
Product Number	669347001	Medical Emergency	(918) 495-4700
CAS Number	8042-47-5	CHEMTREC Emergency (United States Only)	(800) 424-9300
Product Family	White Mineral Oil		
Synonyms	White Mineral Oil; CITGO SAP Product Code No.: 669347001 and 959347		

SECTION 2: COMPOSITION

Component Name(s)	CAS Registry No.	Concentration (%)
1) White Mineral Oil	8042-47-5	100
2) di alpha tocopherol (Vitamin E) (Stabilizer)	59-02-9	<0.1

SECTION 3: HAZARDS IDENTIFICATION

Also see Emergency Overview and Hazard Ratings on the top of Page 1 of this MSDS.

Major Route(s) of Entry Not applicable.

Signs and Symptoms of Acute Exposure

Inhalation	No significant adverse health effects are expected to occur upon short-term exposure.
Eye Contact	Minimal eye irritation may result from short-term contact with liquid, mist, and/or vapor.
Skin Contact	No significant irritation is expected to occur upon short-term exposure.
Ingestion	If swallowed, no significant adverse health effects are anticipated. Ingestion can cause a laxative effect. If liquid material enters into the lungs, it can cause severe damage.

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Continued on Next Page

Page Number 1

CITGO Duoprime® Oil 70

Chronic Health Effects Summary No significant signs or symptoms indicative of any adverse health effects are expected to occur.

Conditions Aggravated by Exposure None known.

Target Organs No target organ effects are anticipated.

Carcinogenic Potential This product does not contain any components at concentrations above 0.1% which are considered carcinogenic by OSHA, IARC or NTP.

OSHA Hazard Classification is indicated by an "X" in the box adjacent to the hazard title. If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication Standard (29 CFR 1910.1200).

OSHA Health Hazard Classification			OSHA Physical Hazard Classification						
Irritant	<input type="checkbox"/>	Toxic	<input type="checkbox"/>	Combustible	<input type="checkbox"/>	Explosive	<input type="checkbox"/>	Pyrophoric	<input type="checkbox"/>
Sensitizer	<input type="checkbox"/>	Highly Toxic	<input type="checkbox"/>	Flammable	<input type="checkbox"/>	Oxidizer	<input type="checkbox"/>	Water-reactive	<input type="checkbox"/>
Corrosive	<input type="checkbox"/>	Carcinogenic	<input type="checkbox"/>	Compressed Gas	<input type="checkbox"/>	Organic Peroxide	<input type="checkbox"/>	Unstable	<input type="checkbox"/>

SECTION 4: FIRST AID MEASURES

Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.

Inhalation	Vaporization is not expected at ambient temperatures. This material is not expected to cause inhalation-related disorders under anticipated conditions of use. In case of overexposure, move the person to fresh air.
Eye Contact	Check for and remove contact lenses. Flush eyes with cool, clean, low-pressure water while occasionally lifting and lowering eyelids. Seek medical attention if excessive tearing, redness, or pain persists.
Skin Contact	Remove contaminated shoes and clothing. Wipe off excess material. Wash exposed skin with soap and water. Seek medical attention if tissue appears damaged or if irritation persists. Thoroughly clean contaminated clothing before reuse. Discard contaminated leather goods. If material is injected under the skin, into muscle, or into the bloodstream, seek medical attention immediately.
Ingestion	Do not induce vomiting or give anything by mouth. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.
Notes to Physician	This material presents a significant aspiration hazard. Aspiration may produce chemical pneumonitis. Induction of emesis is not recommended because of the potential for aspiration. Treatment may involve careful gastric lavage if performed soon after ingestion or in patients who are comatose or at risk of convulsing. Protect airway by placement in Trendelenburg and left lateral decubitus position or by cuffed endotracheal intubation. Subcutaneous or intramuscular injection requires prompt surgical debridement.

SECTION 5: FIRE FIGHTING MEASURES

NFPA Flammability Classification	NFPA Class-IIIB combustible material. Slightly combustible!		
Flash Point Method	OPEN CUP: 166°C (331°F) (Cleveland.)		
Lower Flammable Limit	No data.	Upper Flammable Limit	No data.
Autoignition Temperature	AP 400°C (AP 752°F)		
Hazardous Combustion Products	Carbon dioxide, carbon monoxide, smoke, fumes, and unburned hydrocarbons.		

CITGO Duoprime® Oil 70

Special Properties	This material can burn but will not readily ignite. This material will release vapors when heated above the flash point temperature that can ignite when exposed to a source of ignition. In enclosed spaces, heated vapor can ignite with explosive force. Mists or sprays may burn at temperatures below the flash point.
Extinguishing Media	Use dry chemical, foam, Carbon Dioxide or water fog.
Protection of Fire Fighters	Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to the Emergency Overview on Page 1, Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this MSDS.

Do not touch damaged containers or spilled material unless wearing appropriate protective equipment. Slipping hazard; do not walk through spilled material. Stop leak if you can do so without risk. For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal. Contain large spills to maximize product recovery or disposal. Prevent entry into waterways or sewers. In urban area, cleanup spill as soon as possible. In natural environments, seek cleanup advice from specialists to minimize physical habitat damage. This material will float on water. Absorbent pads and similar materials can be used. Comply with all laws and regulations.

SECTION 7: HANDLING AND STORAGE

Handling	Avoid water contamination and extreme temperatures to minimize product degradation. Empty containers may contain product residues that can ignite with explosive force. Do not pressurize, cut, weld, braze solder, drill, grind or expose containers to flames, sparks, heat or other potential ignition sources. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.
Storage	Keep container closed. Do not store with strong oxidizing agents. Do not store at temperatures above 120° F or in direct sunlight for extended periods of time. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits (see below). An eye wash station and safety shower should be located near the work-station.
Personal Protective Equipment	Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations. The following pictograms represent the minimum requirements for personal protective equipment. For certain operations, additional PPE may be required.



Eye Protection	Safety glasses equipped with side shields should be adequate protection under most conditions of use. Wear goggles and/or face shield if splashing or spraying is anticipated. Wear goggles and face shield if material is heated above 125°F (51°C). Have suitable eye wash water available.
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CITGO Duoprime® Oil 70

Hand Protection	Use gloves constructed of chemical resistant materials such as neoprene or heavy nitrile rubber if frequent or prolonged contact is expected. Use heat-protective gloves when handling product at elevated temperatures.
Body Protection	Use clean and impervious protective clothing (e.g., neoprene or Tyvek®) if splashing or spraying conditions are present. Protective clothing may include long-sleeve outer garment, apron, or lab coat. If significant contact occurs, remove oil-contaminated clothing as soon as possible and promptly shower. Launder contaminated before reuse or discard. Wear heat protective boots and protective clothing when handling material at elevated temperatures.
Respiratory Protection	Vaporization is not expected at ambient temperatures. Therefore, the need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used. Protection factors vary depending upon the type of respirator used. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).
General Comments	Use good personal hygiene practices. Wash hands and other exposed skin areas with plenty of mild soap and water before eating, drinking, smoking, use of toilet facilities, or leaving work. DO NOT use gasoline, kerosene, solvents or harsh abrasives as skin cleaners. Since specific exposure standards/control limits have not been established for this product, the "Oil Mist, Mineral" exposure limits shown below are suggested as minimum control guidelines.

Occupational Exposure Guidelines

Substance	Applicable Workplace Exposure Levels
1) Oil Mist, Mineral	ACGIH (United States), TWA: 5 mg/m ³ STEL: 10 mg/m ³ OSHA (United States), TWA: 5 mg/m ³

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid.	Color Colorless.	Odor	Odorless.
Specific Gravity	0.84 (Water = 1)	pH Not Applicable.	Vapor Density	>1 (Air = 1)
Boiling Point/Range	Not available.		Melting/Freezing Point	Not available.
Vapor Pressure	<0.1 mm of Hg (@ 20°C)		Viscosity (cSt @ 40°C)	13
Solubility in Water	Insoluble in cold water.		Volatile Characteristics	Slightly volatile.
Additional Properties	Gravity, °API (ASTM D287) = AP 34.0 @ 60° F Density = AP 7.10 Lbs/gal. Viscosity (ASTM D2161) = AP 72 SUS @ 100° F			

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability	Stable.	Hazardous Polymerization	Not expected to occur.
Conditions to Avoid	Keep away from extreme heat, sparks, open flame, and strongly oxidizing conditions.		
Materials Incompatibility	Strong oxidizers.		
Hazardous Decomposition Products	No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this MSDS.		

CITGO Duoprime® Oil 70

SECTION 11: TOXICOLOGICAL INFORMATION

For other health-related information, refer to the Emergency Overview on Page 1 and the Hazards Identification in Section 3 of this MSDS.

Toxicity Data

White Mineral Oil:

ORAL (LD50): Acute: >5000 mg/kg [Rat].
DERMAL (LD50): Acute: >2000 mg/kg [Rabbit].

White Mineral Oil:

Low-viscosity and High-viscosity White Mineral Oils:

ORAL (LD50), Acute: >5000 mg/kg [Rat].
DERMAL (LD50), Acute: >2000 mg/kg [Rabbit].
DRAIZE EYE, Acute: Non-irritating [Rabbit].
DRAIZE DERMAL, Acute: Non-irritating [Rabbit].
BUEHLER, Acute: Non-sensitizing [Guinea Pig].
28-Day DERMAL, Sub-Chronic: Non-irritating [Rabbit].
104-Week DERMAL, Chronic: No skin tumors at site of application [Mouse].

MUTAGENICITY:

Modified Ames Assay: Negative [Salmonella typhimurium].
in-vitro Lymphoma Assay: Negative or no toxicity [Mouse].

Lifetime mouse skin painting studies indicated that white mineral oils are not mutagenic or carcinogenic. Mineral oil mists derived from highly refined oils are reported to have low acute and sub-acute toxicities in animals. Effects from single and short-term repeated exposures to high concentrations of mineral oil mists well above applicable workplace exposure levels include lung inflammatory reaction, lipid granuloma formation and lipid pneumonia. In acute and sub-acute studies involving exposures to lower concentrations of mineral oil mists at or near current work place exposure levels produced no significant toxicological effects. In long term studies (up to two years) no carcinogenic effects have been reported in any animal species tested.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Analysis for ecological effects has not been conducted on this product. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.

Environmental Fate

An environmental fate analysis has not been conducted on this specific product. Plants and animals may experience harmful or fatal effects when coated with petroleum-based products. Petroleum-based (mineral) lube oils will normally float on water. In stagnant or slow-flowing waterways, an oil layer can cover a large surface area. As a result, this oil layer might limit or eliminate natural atmospheric oxygen transport into the water. With time, if not removed, oxygen depletion in the waterway might be enough to cause a fish kill or create an anaerobic environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly, it is the responsibility of the user to determine the proper storage, transportation, treatment and/or disposal methodologies for spent materials and residues at the time of disposition.

Conditions of use may cause this material to become a "hazardous waste", as defined by federal or state regulations. It is the responsibility of the user to determine if the material is a RCRA "hazardous waste" at the time of disposal. Transportation, treatment, storage and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact the RCRA/Superfund Hotline at (800) 424-9346 or your regional US EPA office for guidance concerning case specific disposal issues.

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Continued on Next Page

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CITGO Duoprime® Oil 70

SECTION 14: TRANSPORT INFORMATION

DOT Status	Not a U.S. Department of Transportation regulated material.		
Proper Shipping Name	Not regulated.		
Hazard Class	Not regulated.	Packing Group(s)	Not applicable.
		UN/NA ID	Not regulated.
Reportable Quantity	A Reportable Quantity (RQ) has not been established for this material.		
Placards		Emergency Response Guide No.	Not applicable.
		HAZMAT STCC No.	Not assigned.
		MARPOL III Status	Not a DOT "Marine Pollutant" per 49 CFR 171.8.

SECTION 15: REGULATORY INFORMATION

TSCA Inventory	This product and/or its components are listed on the Toxic Substance Control Act (TSCA) inventory.
SARA 302/304	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.
SARA 311/312	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: No SARA 311/312 hazard categories identified.
SARA 313	This product contains the following components in concentrations above de minimis levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA: No components were identified.
CERCLA	The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. This product or refinery stream is not known to contain chemical substances subject to this statute. However, it is recommended that you contact state and local authorities to determine if there are any other reporting requirements in the event of a spill.
CWA	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.
California Proposition 65	This product is not known to contain the any components for which the State of California has found to cause cancer, birth defects or other reproductive harm.
New Jersey Right-to-Know Label	Petroleum Oil
Additional Regulatory Remarks	Federal Hazardous Substances Act, related statutes, and Consumer Product Safety Commission regulations, as defined by 16 CFR 1500.14(b)(3) and 1500.83(a)(13). This product contains "Petroleum Distillates" which may require special labeling if distributed in a manner intended or packaged in a form suitable for use in the household or by children. Precautionary label dialogue should display the following: DANGER: Contains Petroleum Distillates! Harmful or fatal if swallowed! Call Physician immediately. KEEP OUT OF REACH OF CHILDREN!

CITGO Duoprime® Oil 70

SECTION 16: OTHER INFORMATION

Refer to the top of Page 1 for the HMIS and NFPA Hazard Ratings for this product.

REVISION INFORMATION

Version Number 1.2
Revision Date 05/02/2002
Print Date Printed on 05/02/2002.

ABBREVIATIONS

AP: Approximately EQ: Equal >: Greater Than <: Less Than NA: Not Applicable ND: No Data NE: Not Established
ACGIH: American Conference of Governmental Industrial Hygienists AIHA: American Industrial Hygiene Association
IARC: International Agency for Research on Cancer NTP: National Toxicology Program
NIOSH: National Institute of Occupational Safety and Health OSHA: Occupational Safety and Health Administration
NPCA: National Paint and Coating Manufacturers Association HMIS: Hazardous Materials Information System
NFPA: National Fire Protection Association EPA: US Environmental Protection Agency

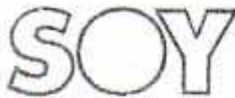
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***** END OF MSDS *****

MSDS for Soy Gold 2500



2500 RINSEABLE SOLVENT

Material Safety Data Sheet

SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
Identity (As Used on Label and List) SOYGOLD 2500 RINSEABLE SOLVENT - EXPERIMENTAL	
Chemical Name: C ₁₀ -C ₁₈ Unsaturated Ethoxylated Methyl Ester/Surfactant Blend	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
Another Exclusive Product of: AG Environmental Products, L.L.C.	Synonym Name: Rinseable Solvent, Soy Methyl Ester/Surfactant Cleaner Concentrate
Address (Number, Street, City, State, and ZIP Code) 12700 West Dodge Road Omaha, NE 68154	Emergency Telephone Number 402-496-6688 Chemtrec 800-424-9300
	Telephone Number for Information 1-800-599-9209
	Date Prepared February 4, 2005

SECTION II - COMPOSITION INFORMATION ON INGREDIENTS					
Hazardous Components (Specific Chemical Identity, Common Name(s))	CAS No.	OSHA PEL	ACGIH-TLV	Other Limits Recommended	%(Opt.)
In accordance with 29 CFR 1910.1200, this product does not contain sufficient concentrations of any substances defined as hazardous by this standard.					
There are no exposure limits established for this product.					

SECTION III - HAZARDS IDENTIFICATION
EMERGENCY OVERVIEW - Caution! May Cause Eye Irritation. A light yellow liquid that may cause eye and skin irritation. No hazard if spilled and no unusual hazard if involved in a fire. Slippery, can cause fall if spilled and walked on.
POTENTIAL HEALTH EFFECTS - EYES - May cause eye irritation. SKIN - May cause skin irritation. INHALATION - Exposure via inhalation not likely. No hazard in normal industrial use. INGESTION - No significant adverse effects are expected upon ingestion of the products.

SECTION IV - FIRST AID MEASURES
EYES - In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists get medical attention.
SKIN - In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. If irritation persists get medical attention. Wash clothing before reuse.
INHALATION - No need for first aid is anticipated not likely exposure route.
INGESTION - No need for first aid is anticipated if material is swallowed.

SECTION V - FIRE FIGHTING MEASURES			
Flash Point (Method Used) >160 C° (D93 Flash Point - Pensky Martens Closed Cup)	Flammable Limits No Data	LEL No Data	UEL No Data
Extinguishing Media - Not usually necessary as this product does not readily support combustion. Use media appropriate for fire's fuel source, CO ₂ , dry chemical, foam.			
Special Fire Fighting Procedures - Cool exposed equipment with water spray until well after fire is out. Do not scatter spilled material with high pressure water streams. Dike fire control water for later disposal. Self contained breathing apparatus and structural firefighter's clothing will provide limited protection.			
Unusual Fire and Explosion Hazards - None Expected.			

SECTION VI - ACCIDENTAL RELEASE MEASURES
SMALL SPILL: Caution, slip hazard. Wipe up small spills promptly. Use a cloth or other absorbent material.
LARGE SPILL: Isolate area. Dike area to prevent spreading. Stay upwind. Wear protective gear as required. Pick up on absorbent material. Put in suitable container for proper disposal.

SECTION VII - HANDLING AND STORAGE
HANDLING: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.
STORAGE: Store indoors in a dry area. Follow label directions carefully. Keep out of reach of children. Keep container tightly sealed when not in use. Do not contaminate water or feed by use or storage. Use from original container only. Do not store with fertilizers, seeds, insecticides or fungicides.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION			
Respiratory Protection (Specify Type) - Use with adequate ventilation. Use NIOSH/MSHA approved respirator if PELs or TLVs are exceeded.			
Engineering Controls	Local Exhaust	Not usually needed	Special
	Mechanical (General)	Yes	Other
Protective Gloves - Impervious			Eye Protection - Safety glasses or goggles
Other Protective Clothing or Equipment - Not usually necessary. If direct contact is possible, wear apron, boots, face shield, etc. as needed.			
Work/Hygienic Practices - Follow label instructions. Wash hands after use and before eating, drinking, smoking, using restrooms, etc.			

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES			
Boiling Point	No Data	Specific Gravity (H ₂ O = 1)	@ 77°F / 25°C 0.93
Vapor Pressure (mm-Hg @ 68°F)	No Data	Melting Point	No Data
Vapor Density (AIR = 1)	Greater than one (1)	Evaporation Rate (Butyl Acetate = 1)	No Data
Solubility in Water	Partially Soluble	pH	NA
Appearance and Odor - A yellow liquid with a faint sweet odor.		VOC's - No Data	10 gm/l
SECTION X - STABILITY AND REACTIVITY			
Chemical Stability	Stable	Conditions to Avoid - Note known	
Incompatibility (Materials to Avoid) - Strong oxidizing and reducing agents, strong alkalis and strong acids			
Hazardous Decomposition or Byproducts - Carbon dioxide, carbon monoxide, smoke, soot and various organic oxidation by-products.			
Hazardous Polymerization	Will Not Occur	Conditions to Avoid - NA	
SECTION XI - TOXICOLOGICAL INFORMATION			
Ingestion LD ₅₀	No Data	Acute Dermal LD ₅₀	No Data
Acute Oral LD ₅₀	No Data	Acute Inhalation LC ₅₀	No Data
SECTION XII - ECOLOGICAL INFORMATION			
No Data			
SECTION XIII - DISPOSAL CONSIDERATIONS			
If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.			
SECTION XIV - TRANSPORT INFORMATION (Not meant to be all inclusive)			
Domestic Highway	Class 9	Domestic Air Shipments	
Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (Fatty Methyl Ester C ₁₀ -C ₁₈ Ethoxylate)		Proper Shipping Name:	Unknown
Hazard Class/Subsidiary Hazard:	Class 9	Hazard Class/Subsidiary Hazard:	Unknown
UN/NA No.:	3082	UN/NA No.:	Unknown
Label Required:	None	Label Required:	Unknown
SECTION XV - REGULATORY INFORMATION (Not meant to be all inclusive - selected regulations represented)			
NFPA Rating	Health 2	Fire 0	Reactivity 0
HMS Rating	Health 2	Flammability 0	Reactivity 0
U.S. FEDERAL REGULATIONS:			
OSHA: There are no exposure limits established for this product. Not hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).			
CECLA: SARA TITLE III SECTION 311/312 HAZARD CLASSES:			
Fire	None Noted		
Acute Health	None Noted		
Reactive	None Noted		
Chronic Health	None Noted		
Release of Pressure	None Noted		
SARA TITLE III SECTION 313:			
This product is not known to contain any compound listed and in quantities requiring reporting under SARA Title III Section 313.			
TSCA: NA			
SNAP: NA			
HAPS: Not listed			
INTERNATIONAL REGULATIONS:			
CANADIAN WHMIS:			
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All components of this product are on the Domestic Substances List (DSL), and acceptable for use under the provisions of CEPA.			
EINECS: All components of this product are on the European Inventory of Existing Commercial Chemical Substances.			
STATE REGULATIONS:			
STATE RIGHT-TO-KNOW REGULATIONS: Any substance listed as hazardous under labor statutes by the States of California, Florida, Illinois, Michigan, New Jersey, Ohio, Pennsylvania or Texas is described in Section II above if known present in regulated concentrations.			
CALIFORNIA PROPOSITION 65: This product is not known to contain any material listed under California's Proposition 65.			
SECTION XVI - OTHER INFORMATION			
MSDS Status: Revised Section(s):			

WARNING: The use of this product is beyond the control of the manufacturer and distributor, therefore, no guarantee, expressed or implied, is made as to the effects of such use or the results to be obtained if not used in accordance with directions or established safe practice. The user must assume all responsibility, including injury or damage, resulting from its misuse or such use in combination with other materials. The manufacturer and distributor warrant only that this product meets the specifications for such product. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, PRODUCTIVENESS, OR ANY OTHER MATTER OF THIS PRODUCT. THE MANUFACTURER AND DISTRIBUTOR SHALL BE IN NO WAY RESPONSIBLE FOR THE PROPER USE OF THIS PRODUCT. The sole and exclusive remedy against the manufacturer and distributor for breach of warranty shall be reimbursement of the purchase price of the product in the event that a defective condition of the product shall be found to exist. NO OTHER REMEDY (INCLUDING BUT NOT LIMITED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR INJURY TO PERSON OR PROPERTY OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE.

MSDS for Kyzen 6521M



MATERIAL SAFETY DATA SHEET

METALNOX® M6521

1. COMPANY NAME AND ADDRESS:

www.kyzen.com

Kyzen Corporation
430 Harding Industrial Drive
Nashville, TN 37211
PHONE: 615-831-0888

(24 HOUR) EMERGENCY PHONE:
CHEMTREC
800-424-9300

Effective: August 20, 2004
Supersedes: NEW

2. INGREDIENTS:

29CFR1910.1200:

Hazardous Components	CAS Number	Approximate %
No ingredients are hazardous as defined by OSHA	NA	NA

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW

Clear straw colored liquid. May be mildly irritating to eyes and skin following prolonged exposure. Repeated ingestion may cause mild abdominal upset.

Eyes: Contact may cause irritation.
Skin: Prolonged exposure to the skin may cause irritation, redness and pain.
Inhalation: Not likely. Hot mist may be mildly irritating to lungs, nose and throat.
Ingestion: May be harmful if ingested. Repeated ingestion may cause mild abdominal upset.

4. FIRST AID:

Eyes: Immediately flush eyes with plenty of water for 15 minutes. If irritation develops, get medical attention.
Skin: Remove contaminated clothing and shoes. Wash affected area with plenty of soap and water. Get medical attention. Wash contaminated items before reuse.
Inhalation: Remove victim from area of exposure. If unconscious, give oxygen. Give artificial respiration if not breathing. Get medical help.
Ingestion: If conscious, give person 1 to 2 glasses of water. Get medical help.

5. FIRE AND EXPLOSION HAZARD DATA:

Flash Point: None to boiling
Flammability Limits in Air: None established
Extinguisher Media: Standard methods including dry chemical, carbon dioxide, foam and water fog.
Special Fire Fighting Procedures: Water should be used to keep fire-exposed containers cool. Prevent runoff from fire control from entering streams, sewers or drinking water supply.
Combustion Products: Oxides of carbon.

6. ACCIDENTAL RELEASE MEASURES:

Small Spill:	Use proper personal protective equipment. Dike area to contain spill. Pick up spill on absorbent, non-combustible material. Place into a chemical waste container. Don't flush into sewers or natural waterways. Wipe area with water to remove last traces.
Large Spill:	Contain material as described above. If necessary, call the local fire or police department for immediate emergency assistance.

7. HANDLING AND STORAGE:

Handling:	Do not drink, smoke or eat in handling area. Wear proper eye protection. Follow proper handling procedures.
Storage:	Keep container tightly closed. Store in cool (60-80°F) ventilated area. Keep separate from strong acids and oxidizers and away from heat, sparks and open flame.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION:

Exposure Guidelines:

Hazardous Component	Exposure Limits	
	OSHA PEL, ppm	ACGIH TLV, mg/m3 (TWA)
None	NA	NA
Respiratory Protection:	Not usually required unless confined to an enclosed area. Then use NIOSH approved organic vapor air purifying respirator.	
Ventilation:	Use in well-ventilated area with local exhaust.	
Protective Gloves:	Impervious chemical, etc.	
Eye Protection:	Glasses, goggles or face shield, etc.	
Other Protective Equipment:	Eye fountain, safety shower.	
Work Hygiene Practices:	Do not eat, drink, or smoke when handling industrial materials.	

9. PHYSICAL AND CHEMICAL PROPERTIES:

Boiling Point	212°F approx.	Specific Gravity	0.996 typical
Vapor Density	Not determined	pH 100%	Neutral
Chemical Oxygen Demand (COD)	TBD (at 0.25%)	pH 10%	Neutral
Volatile Organic Compound (VOC):		Odor	Odorless
EPA Method 24:	80-100 g/L	Appearance	Clear colorless liquid
Vapor Pressure, VOC Components:	<0.01 mmHg @ 20°C	Solubility in Water	Complete

10. STABILITY AND REACTIVITY:

Stability:	Stable
Hazardous Polymerization:	Will not occur
Incompatibility:	Strong acids, oxidizers
Hazardous Decomposition:	Oxides of carbon

11. TOXICOLOGICAL INFORMATION:

Acute Toxicology:	No data is available on product as a whole.
Chronic Toxicology:	Not established on product as a whole.
Carcinogenicity:	Contains no known or suspected carcinogens.

12. ECOLOGICAL INFORMATION:

Environmental Fate and Effects:	
Ecotoxicity:	Not established.
Mobility:	Not established.
Persistence and Degradability:	Not established.
Bioaccumulative Potential:	Not established.

13. DISPOSAL INFORMATION:

Disposal of Material: Conditions of use may cause this material to become a hazardous waste as defined by state or federal law. Use approved treatment, transporters and disposal sites. USEPA guidelines for the classification determination are listed in 40 CFR Parts 261.3.

Empty Containers: Keep containers closed when not in use. Do not reuse empty containers.

14. TRANSPORTATION:

Not regulated.

US DOT: 49CFR172.101

Proper shipping name: Compounds, Cleaning liquid,
Non-hazardous, Non-flammable

Hazard class or division: None

Identification No.: None

Packing Group: None

LABEL: None

Placard: None

15. REGULATORY INFORMATION:

OSHA 29CFR 1910.1200: None

States RIGHT-to-KNOW: None

TSCA Listed: Yes

SARA 302: None

SARA 311/312: Health: Acute

SARA TITLE III, Section 313: None

California Proposition 65: None

Canada WHMIS: D2B

CERCLA: Not reportable

16. OTHER INFORMATION:

NFPA CODES: HEALTH: 1 FIRE: 0 REACTIVITY: 0
 HMIS CODES: HEALTH: 1 FIRE: 0 REACTIVITY: 0 PROTECTION: X

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