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.

SECTION VIII - REACTIVITY

STABILITY:	Stable
HAZARDOUS POLYMERIZATION:	None likely
MATERIALS TO AVOID:	Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS:	CO_2, 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 material.
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, express 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 suitableness and completeness of such information for his own particular use.

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

SIGNATURE: William A. Ayres

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

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: ACETONE

Manufacturer Information:

Sunoco, Inc. (R&M)
Ten Penn Center
1801 Market Street
Philadelphia, Pennsylvania, 19103-1699

Product Use:

Chemical intermediate

Emergency Phone Numbers:

Chemtrec	(800) 424-9300
Sunoco Inc.	(800) 964-8861

Information:

Product Safety Information	(610) 859-1120

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount (Vol%)
ACETONE	67-64-1	100

EXPOSURE GUIDELINES (SEE SECTION 15 FOR ADDITIONAL EXPOSURE LIMITS)

	CAS No.	Governing Body	Exposure Limits		
Limit for the product	67-64-1	ACGIH	STEL	750	ppm
Limit for the product	67-64-1	ACGIH	TWA	500	ppm
Limit for the product	67-64-1	OSHA	TWA	1000	ppm

3. HAZARDS IDENTIFICATION

- **EMERGENCY OVERVIEW**

  Danger! Extremely flammable liquid and vapor. Vapors may cause flash fire or explosion. Harmful if inhaled. High vapor concentrations may cause drowsiness. Causes skin and eye irritation. Harmful if swallowed. May cause target organ or system damage to the following: Eye, Skin, Respiratory system, Central nervous system

  Hazards Ratings:

  Key: 0 = least, 1 = slight, 2 = moderate, 3 = high, 4 = extreme

	Health	Fire	Reactivity	PPI
NFPA	1	3	0	
HMIS	1	3	0	X

- **POTENTIAL HEALTH EFFECTS**

§ **PRE-EXISTING MEDICAL CONDITIONS**
The following diseases or disorders may be aggravated by exposure to this product: Skin, Eye, Lung (asthma-like conditions),

§ **INHALATION**
High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis and loss of consciousness and even death). High vapor concentrations are irritating to the eyes, nose, throat, and lungs.

LC50 (mg/l):	no data	
LC50 (mg/m3):	rat; 8 hrs	50000
LC50 (ppm):	no data	

§ **SKIN**
Moderately irritating to the skin. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

Draize Skin Score:	no data		Out of 8.0
LD50 (mg/kg):	rabbit	20000	

§ **EYES**
Contact with the eye may cause moderate to severe irritation.

§ **INGESTION**
Product may be harmful or fatal if swallowed. Material is a pulmonary aspiration hazard. Material can enter lungs and cause damage. Ingestion of this product may cause central nervous system effects, which may include dizziness, loss of balance and coordination, unconsciousness, coma and even death.

LD50 (g/kg):	rat	5.8

4. FIRST AID MEASURES

- **INHALATION**
  Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.
- **SKIN**
  Immediately flush skin with plenty of water. Remove clothing. Get medical attention immediately. Wash clothing separately before reuse.
- **EYES**
  Flush eye with water for 15 minutes. Get medical attention.
- **INGESTION**
  If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Get medical attention immediately. See Section 15 for additional first aid information.

5. FIRE FIGHTING MEASURES

- **EXTINGUISHING MEDIA**
  Water spray Alcohol resistant foam Dry chemical Carbon dioxide
- **FIRE FIGHTING INSTRUCTIONS**
  Use water spray. Use water spray to cool fire exposed tanks and containers. Acetone/water solutions that contain more than 2.5% acetone have flash points. When the acetone concentration is greater than 8% (by weight) in a closed container, it would be within the flammable range and cause fire or explosion if a source of ignition were introduced.

FLAMMABLE PROPERTIES

	Typical	Minimum	Maximum	Text Result	Units	Method
Flash Point	1.4				F	N/A
Autoignition Temperature	869				F	N/A

Lower Explosion Limit	2.5				%	N/A
Upper Explosion Limit	12.8				%	N/A

6. ACCIDENTAL RELEASE MEASURES

Prevent ignition, stop leak and ventilate the area. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Use appropriate personal protective equipment as stated in Section 8 of this MSDS. Advise the Environmental Protection Agency (EPA) and appropriate state agencies, if required. US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is (800) 424-8802. After removal, flush contaminated area thoroughly with water.

7. HANDLING AND STORAGE

- **HANDLING**
  Use only in a well-ventilated area. Ground and bond containers when transferring material. Avoid breathing (dust, vapor, mist, gas). Avoid contact with this material. Wash thoroughly after handling. Do not use air pressure to unload containers.
- **STORAGE**
  Keep away from heat, sparks, and flame. Store in a cool dry place. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Consult With a Health and Safety Professional for Specific Selections

- **ENGINEERING CONTROLS**
  Use with adequate ventilation. Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Use explosion-proof ventilation equipment.
- **PERSONAL PROTECTION**
  - **EYE PROTECTION**
    Splash proof chemical goggles or full face shield recommended to protect against splash of product.
  - **GLOVES or HAND PROTECTION**
    The glove(s) listed below may provide protection against permeation. Gloves of other chemically resistant materials may not provide adequate protection. Protective gloves are recommended to protect against contact with product. Neoprene; Natural rubber;
  - **RESPIRATORY PROTECTION**
    Concentration in air determines the level of respiratory protection needed. Use only NIOSH certified respiratory equipment. Half-mask air purifying respirator with organic vapor cartridges is acceptable for exposures to ten (10) times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable for exposures to fifty (50) times the exposure limit. Exposure should not exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures greater than fifty (50) times the exposure limit. If exposure is above the IDLH (Immediately Dangerous to Life and Health) or there is the possibility of an uncontrolled release, or exposure levels are unknown, then use a positive pressure-demand full-face supplied air respirator with escape bottle or SCBA. Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.
  - **OTHER**
    The following materials are acceptable for use as protective clothing: Neoprene; Natural rubber; Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Remove contaminated clothing and wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Property	Typical	Units	Text Result	Reference
Appearance		N/A	Colorless liq	

Boiling Point	133	F		
Bulk Density		lb/gal	No data	
Melting Point	-137.2	F		
Molecular Weight	58.08	g/mole		
Octanol/Water Coefficient		N/A	No data	
pH	7	N/A		
Specific Gravity	0.79	N/A		
Solubility In Water		wt %	Complete	
Odor		N/A	Sweet pungent	
Odor Threshold	62	ppm		
Vapor Pressure	181	mmHg	@ 20 C	
Viscosity (F)		SUS	No data	
Viscosity (C)		CsT	No data	
% Volatile	100	wt %		

10. STABILITY AND REACTIVITY

- **STABILITY**
  Stable
- **CONDITIONS TO AVOID**
  Avoid heat, sparks and open flame.
- **INCOMPATIBILITY**
  Acetone may form explosive mixtures with chromic anhydride, chromyl alcohol, hexachloromelamine, hydrogen peroxide, permonosulfuric acid, potassium tertbutoxide, and thioglycol. Strong oxidizers
- **HAZARDOUS DECOMPOSITION PRODUCTS**
  Combustion may produce carbon monoxide, carbon dioxide and other asphyxiants.
- **HAZARDOUS POLYMERIZATION**
  Will not polymerize.

11. ECOLOGICAL INFORMATION

This product is not expected to persist in the environment.

12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. In Canada, follow federal, provincial and local regulations. This material is a RCRA hazardous waste. Do not flush material to drain or storm sewer. Contract to authorized disposal service.

13. TRANSPORT INFORMATION

Governing Body	Mode	Proper Shipping Name
DOT	Ground	Acetone

Governing Body	Mode	Hazard Class	UN/NA No.	Label
DOT	Ground	3 (Flammable liquid)	UN1090	

14. REGULATORY INFORMATION

Regulatory List	Component	CAS No.
ACGIH 2000 - Short Term Exposure Limits	ACETONE	67-64-1

ACGIH 2000 - Time Weighted Averages	ACETONE	67-64-1
Canada - WHMIS: Ingredient Disclosure	ACETONE	67-64-1
CERCLA/SARA - Haz Substances and their RQs	ACETONE	67-64-1
Inventory - Canada - Domestic Substances List	ACETONE	67-64-1
Inventory - European EINECS Inventory	ACETONE	67-64-1
Inventory - Japan - (ENCS)	ACETONE	67-64-1
Inventory - Korea - Existing and Evaluated	ACETONE	67-64-1
Inventory - TSCA - Sect. 8(b) Inventory	ACETONE	67-64-1
Massachusetts Right To Know List	ACETONE	67-64-1
New Jersey - Department of Health RTK List	ACETONE	67-64-1
New Jersey - Special Hazardous Substances	ACETONE	67-64-1
OSHA - Final PELs - Time Weighted Averages	ACETONE	67-64-1
Pennsylvania Right to Know List	ACETONE	67-64-1
TSCA - Sect. 12(b) - Export Notification	ACETONE	67-64-1

Title III Classifications Sections 311,312:

- Acute: **YES**
- Chronic: **NO**
- Fire: **YES**
- Reactivity: **NO**
- Sudden Release of Pressure: **NO**

15. OTHER INFORMATION

Empty containers retain product residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner or properly disposed of. This product is subject to the Chemical Diversion and Trafficking Act of 1988 and subject to specific record keeping requirements. WHMIS Classification: Class B Division 2 - Flammable Liquids;

Appendix F
MSDSs for Alternative Brake Cleaners and General Purpose Degreasers

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

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**** DRAFT COPY -- FOR EVALUATION USE ONLY ****

PRODUCT NAME : L-7769 LOW SUDS WATER CLEANER
IDENTIFICATION NUMBER: SFCL07769 DATE PRINTED: 10/08/03
PRODUCT USE/CLASS :

SUPPLIER:
Camie-Campbell
9225 Watson Industrial Park
St. Louis, MO 63126

EMERGENCY TELEPHONE: 800-424-9300
24 HOUR EMERGENCY PHONE

MANUFACTURER:
Camie-Campbell
9225 Watson Industrial Park
St. Louis, MO 63126

EMERGENCY TELEPHONE: 800-424-9300
24 HOUR EMERGENCY PHONE

PREPARER: JLM, PHONE: 314/968-3222, PREPARE DATE: 10/08/03
REPLACES DATE: 10/08/03

JLM 10/8/03

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % LESS THAN
01	PROPRIETARY DETERGENT	NOT AVAILABLE	95.0 %
02	ISOBUTANE	75-28-5	5.0 %
03	PROPANE	74-98-6	5.0 %

EXPOSURE LIMITS

ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING	COMPANY TLV-TWA	SKIN
01	5 mg/m3	N.E.	5 mg/m3	N.E.	N.E.	NO
02	N.E.	N.E.	N.E.	N.E.	1000 ppm	NO
03	2500 PPM	N.E.	1000 ppm	N.E.	N.E.	NO

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: CORROSIVE: This material is a clear colorless liquid. It can cause severe irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system. This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Keep from reach of children. Do not puncture, incinerate, or place aerosol product containers in compactors. Containers of this material may be hazardous when emptied since containers retain product residues (vapor, liquid, and/or solid). All hazardprecautions given must be observed. Do

(Continued on Page 2)

SECTION 3 - HAZARDS IDENTIFICATION

not flame cut, braze or use welding torch. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Due to product's high PH, direct eye contact with vapors or liquid can cause pain and severe eye burns. The degree of injury depends on the concentration and duration of contact. Signs and symptoms include swelling, reddening, blurred vision, corneal opacity and iritis.

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: This material will probably induce chemical burns on human skin. Dermatitis and skin sensitization can develop after repeated and/or prolonged contact with human skin.

EFFECTS OF OVEREXPOSURE - INHALATION: Inhalation of vapors or mists of the product can be severely irritating to the respiratory system. Excessive inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.

EFFECTS OF OVEREXPOSURE - INGESTION: This product may produce corrosive damage to the gastrointestinal tract if it is swallowed. Irritation of the mouth, pharynx, esophagus, and stomach can develop following ingestion.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: No Information.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION INGESTION EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush with large amounts of water, lifting upper and lower lids occasionally, get medical attention.

FIRST AID - SKIN CONTACT: Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use. Get medical attention if irritation persists.

FIRST AID - INHALATION: Remove individual to fresh air. If breathing is difficult, administer oxygen. Give artificial respiration if breathing has stopped. Keep person warm and quiet. Get medical attention.

FIRST AID - INGESTION: Do not induce vomiting. Give two glasses of water if conscious. Never give anything by mouth to an unconscious person. Get immediate medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: -156 F
(PENSKY-MARTENS C.C.)

LOWER EXPLOSIVE LIMIT: 1.8 %
UPPER EXPLOSIVE LIMIT: 9.5 %

(Continued on Page 3)

SECTION 5 - FIRE FIGHTING MEASURES

AUTOIGNITION TEMPERATURE: N.D.

EXTINGUISHING MEDIA: CO2 DRY CHEMICAL WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and travel along the ground or may be moved by ventilation and ignited by ignition sources at locations distant from material handling point. For aerosol products - exposure to temperatures over 130F may cause containers to burst releasing highly flammable gas.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive pressure mode when fighting fires. Keep fire exposed containers cool with water fog.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition & ventilate area. Persons not properly equipped should be excluded from area. Stop spill at source - prevent spreading. Avoid inhalation of vapors. Avoid skin contact with liquid. Soak up on absorbent material and place into proper container for disposal. Use non-sparking scoops for flammable materials. Clean walking surfaces thoroughly to reduce slipping hazard.

SECTION 7 - HANDLING AND STORAGE

HANDLING: Containers of this material may be hazardous when emptied, since containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given must be observed. Do not flame cut, braze or use welding torch on containers. Intentional misuse by deliberately concentrating and inhaling the vapors from this product may be harmful or fatal.

STORAGE: Do not store above 120F. Do not store in direct sunlight. Keep away from heat sources, open flame, pilot lights, sparks, and other sources of ignition. Do not store above 120F. Do not store in direct sunlight. Store at temperatures of 34 to 120 degrees F, in order to preserve product stability

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide sufficient mechanical ventilation (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

RESPIRATORY PROTECTION: If work place exposure limits of product or any component is exceeded, use a NIOSH/MSHA approved respirator. Consult your safety equipment supplier for recommendations.

(Continued on Page 4)

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

SKIN PROTECTION: Wear impervious gloves if method of use involves skin contact with product. Consult your safety supply vendor for glove recommendations.

EYE PROTECTION: Wear safety glasses at minimum, more extensive protection may be necessary depending on how the product is to be used.

OTHER PROTECTIVE EQUIPMENT: Wear impervious clothing if bodily exposure is anticipated. Consult your safety supply vendor for recommendations.

HYGIENIC PRACTICES: Wash hands before eating or smoking. Smoke in designated areas only. Remove and launder clothing if contaminated.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE	: -44 - 11 F	VAPOR DENSITY	: Is heavier than air
ODOR	: DETERGENT	ODOR THRESHOLD	: N.D.
APPEARANCE	: CLEAR LIQUID	EVAPORATION RATE	: Is faster than Butyl Acetate
SOLUBILITY IN H2O	: SOLUBLE		
FREEZE POINT	: N.D.	SPECIFIC GRAVITY	: 0.9913
VAPOR PRESSURE	: N.D.	pH @ 0.0 %	: 13
PHYSICAL STATE	: LIQUID	VISCOSITY	: N.D.

COEFFICIENT OF WATER/OIL DISTRIBUTION: N.D.

(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Heat, sparks, welding arcs, open flame, pilot lights, static electricity or other source of ignition.

INCOMPATIBILITY: strong oxidizers, Very strong acid, caustic or oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: carbon monoxide and carbon dioxide, various hydrocarbons,

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

No product or component toxicological information is available.

(Continued on Page 5)

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of in accordance with all local, state and federal regulations.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Aerosols

DOT TECHNICAL NAME:

DOT HAZARD CLASS: 2.1 HAZARD SUBCLASS: 8 PG III

DOT UN/NA NUMBER: UN1950 PACKING GROUP: NONE RESP. GUIDE PAGE: 126

ADDITIONAL INFORMATION:: For domestic ground and air shipment this product may be shipped as a Consumer Commodity ORM-D. Outer cartons must have the ORM-D or ORM-D AIR designation. (our original cartons are preprinted with the ORM-D designation for ground shipment)

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:
This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD FIRE HAZARD PRESSURIZED GAS HAZARD

SARA SECTION 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

---------- CHEMICAL NAME ---------- CAS NUMBER WT/WT % IS LESS THAN
No SARA Section 313 components exist in this product.

TOXIC SUBSTANCES CONTROL ACT:

(Continued on Page 6)

SECTION 15 - REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT:
This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

---------- CHEMICAL NAME ---------- CAS NUMBER
No information is available.

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

:

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 3 FLAMMABILITY: 4 REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 10/08/03

REASON FOR REVISION: NEW FORMULA

VOC CONTENT: 6.2 % BY WEIGHT, 61 GRAMS/LITER TOTAL PRODUCT,
61 GRAMS/LITER LESS WATER AND EXEMPT, 0.03 LBS/CAN

LEGEND: N.A. - Not Applicable, N.E. - Not Established,
N.D. - Not Determined

:

The information contained on this MSDS is been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations. The environmental information and hazardous materials identification system have been included by Camie-Campbell Inc. in order to provide additional health and hazard classification information. The ratings recommend are based upon the criteria supplied by the developers of these rating systems, together with Camie-Campbell Inc.'s interpretation of the available data. Proper personal protective equipment varies widely with conditions of use and anticipated exposure. We recommend that a supervisor or other qualified person determine proper PPE for intended use.

<END OF MSDS>

Material Safety Data Sheet

Mirachem®* *Experimental Automotive Cleaner (aerosol) (Formulation No. 2852-19)

Section I - Chemical Product and Company Identification

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

Date Prepared: 03/04/04
Revision Date: New

Emergency Phone: 1-(800) 847-3527

Section II - Composition/Information on Ingredients

Hazardous Component (CAS #)	OSHA PEL	ACGIH TLV	Other Limits	% (Optional)
Propane (CAS #74-98-6)				2.5
Isobutane (CAS #75-28-5)				2.5

Section III - Hazards Identification

Emergency Overview: Clear, non-flammable, water based cleaner.

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 (non-aerosol portion)

Boiling Point:	>210°F	Specific Gravity (H_2O = 1):	0.997
Vapor Pressure (mm Hg.) @ 20°C	Composite = 0.006	pH:	8.7-9.5
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 Available

Section XII - Ecological Information

No Data Available

Section XIII - Disposal Considerations

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

MATERIAL SAFETY DATA SHEET

KYZEN® Cyber Solv Experimental Degreaser 11

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: June 11, 2004
Supersedes: NEW

2. INGREDIENTS:

29CFR1910.1200:

Hazardous Components	CAS Number	Approximate %
Liquefied Petroleum Gas	68476-86-8	5-15 10% RA KYZEN

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW
Aerosolized liquid. Vapors may be irritating to eyes, skin and mucous membranes.

Eyes: Contact may cause irritation.
Skin: Prolonged exposure to the skin may cause irritation.
Ingestion: May be harmful if ingested. Repeated ingestion may cause abdominal pain.
Inhalation: May cause irritation, dizziness, nausea or headache.

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.
Ingestion: If conscious, give person 1 to 2 glasses of water. Get medical help.
Inhalation: Remove victim from area of exposure. If unconscious, give oxygen. Give artificial respiration if not breathing. Get medical help.

5. FIRE AND EXPLOSION HAZARD DATA:

Flammability pet Flame Projection Test: Non-flammable.
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. This liquid is volatile and gives off invisible vapors. The liquid or vapor may settle in low area or travel some distance along the ground or surface to ignition sources, where they may ignite or explode.
Combustion Products: Oxides of carbon, ammonia, and nitrogen.
Other: Do not add nitrates due to possible formation of nitrosamines.

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 (non-aerosol portion)

Boiling Point:	>210°F	Specific Gravity (H_2O = 1):	0.997
Vapor Pressure (mm Hg.) @ 20°C	Composite = 0.006	pH:	8.7-9.5
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 Available

Section XII - Ecological Information

No Data Available

Section XIII - Disposal Considerations

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

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:	Do not puncture or incinerate container. Exposure to temperatures above 120°F may cause bursting. Do not reuse empty containers. Dispose of according to local regulations.

14. TRANSPORTATION:

ORM-D

	US DOT: 49CFR172.101
Proper shipping name:	AEROSOL – Consumer Commodity or Petroleum gases, liquefied
Hazard class or division:	2.1
Identification No.:	UN1075
Packing Group:	NA
LABEL:	ORM-D
Placard:	ORM-D

15. REGULATORY INFORMATION:

29CFR 1910.1200:	Liquefied Petroleum Gas	68476-86-8
TSCA Listed:	Yes	
CERCLA:	Not reportable	
SARA TITLE III, Section 313:	None	
California Proposition 65	None	

16. OTHER INFORMATION:

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

The data contained herein is based on information currently available to Kyzen Corporation and is believed to be factual. As a formulator, blender, and compounder, Kyzen Corporation does not manufacture the raw materials used in this product and correspondingly relies on information provided to Kyzen Corporation from material safety data sheets on the specific raw materials in the construction of this material safety data sheet. Such information is to the best of Kyzen Corporation's knowledge and belief to be accurate and reliable as of the date of this MSDS. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY, OR COMPLETENESS. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular application. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. This data is not to be taken as a warranty or representation of which Kyzen Corporation assumes legal responsibility.
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MATERIAL SAFETY DATA SHEET

KYZEN® Cyber Solv (Aerosol)

1. COMPANY NAME AND ADDRESS:

www.kyzen.com

Kyzen Corporation
430 Harding Industrial Drive
Nashville, TN 37211
PHONE: 615-831-0688

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

Effective: May 17, 2004
Supersedes: NEW

2. INGREDIENTS:

29CFR1910.1200:

Hazardous Components	CAS Number	Approximate %
Liquefied Petroleum Gas	68476-86-8	5-15 15% FOR KYZEN

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW
Aerosolized liquid. Vapors may be irritating to eyes, skin and mucous membranes.

Eyes: Contact may cause irritation.
Skin: Prolonged exposure to the skin may cause irritation.
Ingestion: May be harmful if ingested. Repeated ingestion may cause abdominal pain.
Inhalation: May cause irritation, dizziness, nausea or headache.

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.
Ingestion: If conscious, give person 1 to 2 glasses of water. Get medical help.
Inhalation: Remove victim from area of exposure. If unconscious, give oxygen. Give artificial respiration if not breathing. Get medical help.

5. FIRE AND EXPLOSION HAZARD DATA:

Flammability per Flame Projection Test: Non-flammable.
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. This liquid is volatile and gives off invisible vapors. The liquid or vapor may settle in low area or travel some distance along the ground or surface to ignition sources, where they may ignite or explode.
Combustion Products: Oxides of carbon, ammonia, and nitrogen.
Other: Do not add nitrates due to possible formation of nitrosoamines.

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.

7. HANDLING AND STORAGE:

Handling: Do not drink, smoke or eat in handling area. Do not puncture or incinerate container. Wear proper eye protection. Follow proper handling procedures.

Storage: Store in cool (60-80°F) ventilated area. Keep separate from strong acids, bases and oxidizers and away from heat, sparks and open flame.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION:

Exposure Guidelines:

OSHA Hazardous Component	Exposure Limits	
	OSHA PEL, ppm	ACGIH TLV, mg/m3
Liquefied Petroleum Gas	1000	

Respiratory Protection: Not normally needed. In closed environments use NIOSH approved organic vapor air purifying respirator.
Ventilation: Use in well-ventilated area with local exhaust.
Protective Gloves: Standard 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	100°C	Specific Gravity	1.03 typical
Vapor Pressure	Not determined	pH 100%	10.5-11.5
Vapor Density	Not determined	Appearance	Clear colorless liquid
Volatile Organic Compound (VOC): EPA Method 24:	16.7 g/L (plus propellant)	Odor	Mild
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, ammonia, and nitrogen.
Other: Do not add nitrates due to possible formation of nitrosoamines.

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:	Do not puncture or incinerate container. Exposure to temperatures above 120°F may cause bursting. Do not reuse empty containers. Dispose of according to local regulations.

14. TRANSPORTATION:

ORM-D

	US DOT: 49CFR172.101
Proper shipping name:	AEROSOL – Consumer Commodity or Petroleum gases, liquefied
Hazard class or division:	2.1
Identification No.:	UN1075
Packing Group:	NA
LABEL:	ORM-D
Placard:	ORM-D

15. REGULATORY INFORMATION:

29CFR 1910.1200:	Liquefied Petroleum Gas	68476-86-8
TSCA Listed:	Yes	
CERCLA:	Not reportable	
SARA TITLE III, Section 313:	None	
California Proposition 65	None	

16. OTHER INFORMATION:

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

The data contained herein is based on information currently available to Kyzen Corporation and is believed to be factual. As a formulator, blender, and compounder, Kyzen Corporation does not manufacture the raw materials used in this product and correspondingly relies on information provided to Kyzen Corporation from material safety data sheets on the specific raw materials in the construction of this material safety data sheet. Such information is to the best of Kyzen Corporation's knowledge and belief to be accurate and reliable as of the date of this MSDS. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY, OR COMPLETENESS. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular application. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. This data is not to be taken as a warranty or representation of which Kyzen Corporation assumes legal responsibility.
Copyright 2002 Kyzen Corporation. All rights reserved.

MATERIAL SAFETY DATA SHEET

KYZEN® Aerosol Cleaner (Aerosol Can)

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: November 3, 2003
Supersedes: October 13, 2003

2. INGREDIENTS:

Hazardous Components	CAS Number	Approximate %
Liquefied Petroleum Gas	68476-86-8	5-15

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION:

EMERGENCY OVERVIEW
Aerosolized liquid. Vapors may be mildly irritating to eyes, skin and mucous membranes.

Eyes: Contact may cause mild irritation.
Skin: Prolonged exposure to the skin may cause mild irritation.
Ingestion: May be harmful if ingested.
Inhalation: Prolonged exposure is not likely to cause adverse effects.

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.

Ingestion: If conscious, give person 1 to 2 glasses of water. Get medical help.

Inhalation: Remove victim from area of exposure. If unconscious, give oxygen. Give artificial respiration if not breathing. Get medical help.

5. FIRE AND EXPLOSION HAZARD DATA:

Flammability Per Flame Projection Test: Non-flammable.
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. This liquid is volatile and gives off invisible vapors. The liquid or vapor may settle in low area or travel some distance along the ground or surface to ignition sources, where they may ignite or explode. Do not puncture or incinerate container. Exposure to temperatures above 120°F may cause container to burst.
Combustion Products: Oxides of carbon, ammonia, and nitrogen.
Other: Do not add nitrates due to possible formation of nitrosoamines.