Material Safety Data Sheet

Potassium Hydroxide

1. Product and company identification

Product name	: Potassium Hydroxide
Product code	: PX1480
Supplier	: EMD Chemicals Inc. 480 S. Democrat Rd. Gibbstown, NJ 08027 856-423-6300 Technical Service Monday-Friday: 8:00 -5:00 PM
Synonym	: Potassium Hydrate, Caustic Potash
Material uses	: Other non-specified industry: Analytical reagent.
Validation date	: 10/25/2011.
In case of emergency	: 800-424-9300 CHEMTREC (USA) 613-996-6666 CANUTEC (Canada) 24 Hours/Day: 7 Days/Week

2. Hazards identification

Emergency overview : DANGER!
POISON!

CAUSES SEVERE EYE AND SKIN BURNS.
CAUSES RESPIRATORY TRACT BURNS.
HARMFUL IF SWALLOWED.
CAUSES DAMAGE TO THE FOLLOWING ORGANS: LUNGS, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.

Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Physical state	: Solid. [Pellets.]
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	: Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation	: Corrosive to the respiratory system.
Ingestion	: Toxic if swallowed. May cause burns to mouth, throat and stomach.
Skin	: Severely corrosive to the skin. Causes severe burns.
Eyes	: Severely corrosive to the eyes. Causes severe burns.

Potential chronic health effects

Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Target organs	: Causes damage to the following organs: lungs, upper respiratory tract, skin, eye, lens or cornea.
Medical conditions aggravated by over-exposure	: Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

Continued on next page

3 . Composition/information on ingredients

Name	CAS number	% by weight
Potassium Hydroxide	1310-58-3	100

4 . First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5 . Fire-fighting measures

Flammability of the product : No specific fire or explosion hazard.

Extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
metal oxide/oxides

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Special remarks on fire hazards : Thermal decomposition may release toxic and/or hazardous gases.

Special remarks on explosion hazards : Contact with many metals produces highly flammable hydrogen gas. Violent reaction may occur.

6 . Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Spill : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Continued on next page

7 . Handling and storage

Handling : Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : Store in accordance with local regulations. Store in original container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use.

8 . Exposure controls/personal protection

Ingredient	Exposure limits
Potassium Hydroxide	**ACGIH TLV (United States, 2/2010).** C: 2 mg/m³ **OSHA PEL 1989 (United States, 3/1989).** CEIL: 2 mg/m³ **NIOSH REL (United States, 6/2009).** TWA: 2 mg/m³ 10 hour(s).

Consult local authorities for acceptable exposure limits.

Engineering measures : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. >8 hours (breakthrough time): nitrile rubber

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: safety glasses with side-shields , face shield

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Recommended: safety apron

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state : Solid. [Pellets.]

Flash point : [Product does not sustain combustion.]

Color : White.

Odor : Odorless.

Molecular weight : 56.11 g/mole

Molecular formula : KOH

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9 . Physical and chemical properties

pH	:	Not available.
Boiling/condensation point	:	1319.8°C (2407.6°F)
Melting/freezing point	:	360°C (680°F)
Relative density	:	2.04
Vapor pressure	:	Not available.
Vapor density	:	Not available.
Odor threshold	:	Not available.
Evaporation rate	:	Not available.
VOC	:	0 % (w/w)
Solubility	:	Soluble in the following materials: water

10 . Stability and reactivity

Chemical stability	:	The product is stable.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous polymerization	:	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to avoid	:	No specific data.
Materials to avoid	:	Highly reactive or incompatible with the following materials: metals and moisture. Reactive or incompatible with the following materials: reducing materials, organic materials and acids. Contact with many metals produces highly flammable hydrogen gas. Incompatible with strong acids, ammonia, carbon dioxide, alkyl alcohol, aluminum, zinc, tetrahydrofuran, diazonium salts.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions of reactivity	:	Contact with many metals produces highly flammable hydrogen gas. Violent reaction may occur.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Test	Route	Species	Result
Potassium Hydroxide	LD50	Oral	Rat	273 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Observation
Potassium Hydroxide	Eyes - Moderate irritant	Rabbit	-	-
	Skin - Severe irritant	Guinea pig	-	-
	Skin - Severe irritant	Human	-	-
	Skin - Severe irritant	Rabbit	-	-

Carcinogenicity

No known significant effects or critical hazards.

Mutagenicity

No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

Continued on next page

12 . Ecological information

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Potassium Hydroxide	Acute LC50 80000 ug/L Fresh water	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours

Environmental effects : No known significant effects or critical hazards.

Other adverse effects : No known significant effects or critical hazards.

13 . Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

14 . Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1813	POTASSIUM HYDROXIDE, SOLID	8	II		Reportable quantity 1000 lbs. (454 kg)

PG* : Packing group

15 . Regulatory information

United States

HCS Classification : Toxic material
Corrosive material
Target organ effects

U.S. Federal regulations : **TSCA 8(a) IUR**: Partial exemption
United States inventory (TSCA 8b): This material is listed or exempted.
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Potassium Hydroxide
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Potassium Hydroxide: Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: Potassium Hydroxide
Clean Air Act (CAA) 112 accidental release prevention: No products were found.
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

Massachusetts Substances : This material is listed.

New Jersey Hazardous Substances : This material is listed.

New York Acutely Hazardous Substances : This material is listed.

Pennsylvania RTK Hazardous Substances : This material is listed.

Continued on next page

15 . Regulatory information

Canada

WHMIS (Canada) : Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class E: Corrosive material

Canadian lists : **CEPA Toxic substances**: This material is not listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is not listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

CEPA DSL / CEPA NDSL : This material is listed or exempted.

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.

EU regulations

Hazard symbol or symbols :

Risk phrases : R22- Harmful if swallowed.
R35- Causes severe burns.

Safety phrases : S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

International regulations

International lists : **Australia inventory (AICS)**: This material is listed or exempted.
China inventory (IECSC): This material is listed or exempted.
Japan inventory: This material is listed or exempted.
Korea inventory: This material is listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): This material is listed or exempted.
Philippines inventory (PICCS): This material is listed or exempted.

16 . Other information

National Fire Protection Association (U.S.A.) :

Notice to reader

The statements contained herein are based upon technical data that EMD Chemicals Inc. believes to be reliable, are offered for information purposes only and as a guide to the appropriate precautionary and emergency handling of the material by a properly trained person having the necessary technical skills. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use, storage and disposal of these materials and the safety and health of employees and customers and the protection of the environment. EMD CHEMICALS INC. MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO THE INFORMATION HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS.

Procter & Gamble Chemicals

MATERIAL SAFETY DATA SHEET

MSDS Number: GLYC302-2
Supersedes: GLYC302-1

Revision Date: April 26, 2004
Issue Date: July 20, 2002

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- **Product identification**

Synonyms: Glycerol
Trade Names: **Superol V Glycerine USP, FCC**

- **Product uses**

Multiple uses including as emulsifier, emollient, plasticizer, humectant, sweetner, anti-freeze, in surface coatings and paints, cosmetics, drug and food products. Intermediate for making glycerol derivatives.

- **Company/undertaking identification**

North America:
The Procter & Gamble Company
Procter & Gamble Chemicals
Sharon Woods Technical Center
11530 Reed Hartman Highway
Cincinnati, Ohio 45241

Department issuing MSDS: Product Safety and Regulatory Affairs
1-800-477-8899

Europe:
Procter & Gamble European Supply Company N.V.
P&G Chemicals – Europe
The Heights
Brooklands
Weybridge
Surrey
ENGLAND KT13 0XP
Telephone Number: 01932-896000

- **Emergency Telephone:**

P&G Ltd. - Brooklands, England: Tel 01932-896000 (day phone)
Emergency 0191-279-2000 (day phone)

CHEMTREC: 1-800-424-9300 U.S. and Canada
1-703-527-3887 For calls originating elsewhere

U.S. Emergency, Quality or Service Issues: Call Customer Service
1-800-477-8899 or 513-626-6882

5. FIRE FIGHTING MEASURES - CONTINUED

- Flash Point and method: >390° F (198.9° C) PMCC
- Explosive limits in air: Not applicable
- Auto-ignition temperature: ~752° F (~400° C)
- Sensitivity to mechanical impact/static discharge: Not available
- Special Protective Equipment: Wear self-contained breathing apparatus and full protective clothing.
- Other Fire Fighting Considerations: Contact of glycerine with strong oxidizing agents such as Nitric Acid or other strong acids, Chromium Trioxide, Potassium Chlorate, or Potassium Permanganate may cause an explosion.
- Exposure hazards: During burning poisonous acrolein may be formed.

6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions: Wear respirator, suitable gloves and eye/face protection.
- Environmental Precautions: Minimize contamination of drains, surface and ground waters.
- Procedures for Spill/Leak Clean-up: Transfer product to suitably labeled containers for disposal at an approved site. Absorb liquid spillage onto inert material (e.g. sand). Residues and small spillages may be washed away with water and detergent.

Refer to Section 8 for additional personal protection information.
Refer to Section 13 for disposal considerations.

7. HANDLING AND STORAGE

- Handling: No special precautions required, but avoid eye and skin contact as part of normal industrial hygiene. Prevent formation of mist. Eye and skin contact should be avoided if handling at elevated temperatures.
- Storage: Store in clean tight containers to prevent moisture pickup from air. Can be stored in aluminum, stainless steel, fiberglass or resin lined steel vessels.
- Other Recommendations: Avoid contact with strong oxidizing agents such as Nitric Acid or other strong acids, Chromium Trioxide, Potassium Chlorate, or Potassium Permanganate.
- Specific use(s): Follow bulk handling and storage procedures as noted above.

Refer to Section 6 for clean-up of spillages.
Refer to Section 13 for disposal considerations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- General Precautions: Good industrial hygiene should be followed. Avoid breathing mist.

- Exposure Limit Values - glycerine:

Australia – TWA 10 mg/m^3
Belgium - TWA 10 mg/m^3
Canada:
  Alberta – TWA 10 mg/m^3
  British Columbia – TWA 10 mg/m^3
  Ontario – TWA 10 mg/m^3
  Quebec – TWA 10 mg/m^3
France – TWA (VME) 10 mg/m^3
Finland – 8 hour limit 20 mg/m^3
Ireland – 8 hour OEL (TWA) 10 mg/m^3
Italy – 8 hour TWA 10 mg/m^3
Korea – TWA 10 mg/m^3
Malaysia – TWA 10 mg/m^3
Mexico – TWA 10 mg/m^3
New Zealand – TWA 10 mg/m^3
Singapore – 8-hour PEL (TWA) 10 mg/m^3
Spain – 8 hour daily exposure limit (VLA-ED) 10 mg/m^3
The Netherlands – MAC TWA (TGG) 10 mg/m^3
United Kingdom – TWA 10 mg/m^3
United States – ACGIH – Glycerine mist - TLV-TWA 10 mg/m^3
  OSHA Z-1 PEL Glycerine mist, respirable fraction - 5 mg/m^3
  OSHA Z-1 PEL Glycerine mist, total dust - 15 mg/m^3

- Exposure Controls:

Engineering Controls: Ventilation: Local exhaust - preferred
Mechanical (general) acceptable
Provide ventilation to meet exposure limits.

Personal Protective Equipment:

Eye - None required, although eye protection is recommended as part of good industrial hygiene.

Skin - Protective gloves: None required with normal use.

Inhalation - An appropriate NIOSH/MSHA approved respirator should be used if a mist or vapor is generated. A NIOSH/MSHA approved self-contained breathing apparatus or air-supplied respirator is recommended if the concentration exceeds the capacity of cartridge respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Other Controls: None required.

- Environmental Exposure Controls: Contact Procter and Gamble for specific Community information.

9. PHYSICAL AND CHEMICAL PROPERTIES

- General Information:

Physical State: Liquid
Appearance: Water white, clear
Odor: Bland odor; sweet taste
Odor Threshold: Not available

- Important health, safety and environmental information:

pH: Neutral
Boiling point/Boiling range: > 550° F (288° C) @ 760 mm Hg (101.3kPa)
Flash Point & Method: >390° F (198.9° C) PMCC
Flammability (solid, gas): Not available
Explosive properties: Not to be expected
Oxidising properties: Not to be expected
Vapor pressure: @ 68° F (20° C) <0.008 mm Hg (<1013 hPa)
Relative density: 1.262 @ 25/25° C
Freezing point: Not available
Melting Point: ~64.4° F (~18° C) (solidifies at a much lower temperature)
Solubility:
Water solubility: Complete @ 72° F
Fat solubility (solvent-oil to be specified): Miscible with ethanol
Slightly soluble in acetone
Insoluble in ether and in chloroform

Partition coefficient (Log Pow) (calculated): -2.6
Viscosity: ~1300 mPa.s at 20° C
Vapor density: Not available
Evaporation Rate (nBuOAc=1): Not available
Explosive Limits: Not applicable
Auto ignition temperature: ~752° F (~400° C)
Coefficient of water/oil distribution: Not available

10. STABILITY AND REACTIVITY

- Stability: Stable under normal operational procedures.
- Conditions to Avoid: None identified.
- Materials to Avoid: Contact of glycerine with strong oxidizing agents such as Nitric Acid or other strong acids, Chromium Trioxide, Potassium Chlorate, or Potassium Permanganate may cause an explosion.
- Hazardous Decomposition Products: Does not decompose up to 204° C (400° F)
Thermal decomposition may release acrolein.
- Hazardous Polymerization: No hazardous polymerization reactions.

11. TOXICOLOGICAL INFORMATION

IRRITATION DATA

Skin, rabbit	Not irritating
Eye, rabbit	Not irritating

TOXICITY DATA

LD_{50} oral, rat	>2 g/kg

12. ECOLOGICAL INFORMATION

- Ecotoxicity:

Carassius auratus (Goldfish)	24h LC_{50} >5,000 mg/L
Leuciscus idus (Golden Orfe)	48h LC_0 >250 mg/L
Oncorhynchus mykiss (Rainbow trout)	96h LC_{100} = 51,000 – 57,000 mg/L
Daphnia magna	24h EC_{50} >10,000 mg/L
Daphnia magna	24h EC_0 >500 mg/L

Microorganisms

Chlimonas paramaecium	48h NOEC >10,000 mg/L
Entosiphon sulcatum	72h NOEC 3200 mg/L
Pseudomonas putida	16h NOEC >10,000 mg/L
Uronema parduzci	20h NOEC >10,000 mg/L

Algae

Microcystis aeruginosa	8d NOEC 2900 mg/L
Scenedesmus quadricauda	8d EC0 >10,000 mg/L

- Mobility:
  Low potential for sorption to soil. Glycerol will partition primarily to water.

- Persistance and degradability:
  Readily biodegradable (OECD 301)

- Bioaccumulative potential:
  BCF: 3.162 (calculated)

13. DISPOSAL CONSIDERATIONS

DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL AND LOCAL REGULATIONS. Do not dispose of via sinks, drains or into the immediate environment.

14. TRANSPORT INFORMATION

U.S. DOT: Not regulated for transport
Not classified in RID/ADR – IMDG – ICAO/IATA

15. ADDITIONAL REGULATORY INFORMATION

INVENTORY STATUS: TSCA, EINECS, DSL, JAPAN, AUSTR, PHIL, CHINA, KOREA

WGK water endangering class: 1, low hazard to water

EU Classification

This product is not classified as dangerous according to Directive 67/548/EEC.

Canada

HAZARDOUS INGREDIENTS – WHMIS (Canadian Workplace Hazardous Materials Information System)

This product when tested as a whole is not a controlled substance within the meaning of the Hazardous Products Act.

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.

16. OTHER INFORMATION

EUROPE

This product safety data sheet was prepared in compliance with Directive 2001/58/EC

References: BIBRA toxicity profile (1987). Glycerol.

OECD SIDS Initial Assessment Report for SIAM 14, February 2002

The following sections contain revisions or new statements: 1.

Department issuing MSDS: Product Safety and Regulatory Affairs 1-800-477-8899

The submission of the MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied are for use only in connection with occupational safety and health.

The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific product designated herein, and does not relate to use in combination with any other material or any other process. Procter & Gamble assumes no responsibility for injury to the recipient or third persons, or for any damage to any property resulting from misuse of the controlled product.

CHEMISPHERE CORP.
2101 Clifton Avenue
St. Louis, MO 63139

General Information: 314-644-1300
CHEMTREC: 800-424-9300

MATERIAL SAFETY DATA SHEET

1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: Specially Denatured Alcohol 40-B ETHANOL 200 Proof
Product Code: B5700
MSDS Date: November 16, 2011

2: COMPOSITION, INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TLV	STEL
1	Ethanol 64-17-5	95 - 100	1000 ppm		1000	
2	Tertiary Butyl Alcohol 75-65-0	.12	100		100	
3	Denatonium Benzoate 3734-33-6	+	NE		NE	

3: HAZARDS IDENTIFICATION

EMERGENCY RESPONSE INFORMATION

HAZARDS	HMIS	NFPA
Toxicity	1	1
Fire	3	3
Reactivity	0	0
Special	G	

RATING	DEGREE OF HAZARD	SPECIAL EQUIPMENT LEGEND			
4	Extreme	A	Safety Glasses	F	C + Dust Mask
3	High	B	A + Gloves	G	B + Respirator
2	Moderate	C	B + Apron	H	F + Goggles
1	Slight	D	C + Face Shield	I	B + Respirator
0	Insignificant	E	B + Dust Mask	X	Ask Supervisor

Danger! Flammable liquid and vapor. May be harmful if inhaled. High vapor concentrations may cause dizziness. Will cause skin irritation. Causes severe eye irritation. Harmful or fatal if swallowed. Pulmonary aspiration hazard: can enter lungs and cause damage.

HEALTH EFFECTS FROM OVEREXPOSURE
Primary Routes of Exposure
- **Skin Contact**
- **Eye Contact**
- **Inhalation**
- **Ingestion**

Eye Contact:
Direct contact with material can cause severe irritation or damage.

Skin Contact:
May cause severe irritation with prolonged or repeated contact. Removes natural oils and fats from skin.

Inhalation:
Inhalation of vapors, mist or spray can cause irritation to nose, throat and lungs, and higher concentrations may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects.

Ingestion:
Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death. This product has a low order of oral toxicity.

4: FIRST AID MEASURES

Inhalation:
Remove subject to fresh air. Keep subject at rest. If not breathing, give artificial respiration. Obtain medical assistance.

Eye Contact:
Flush eyes with a large amount of water for at least 15 minutes. Consult a physician immediately.

Skin Contact:
Wash affected skin areas thoroughly with water until no odor remains. If redness or swelling develops, consult a physician. Immediately remove contaminated clothing and wash before reuse.

Ingestion:
Do Not induce vomiting! Do Not give liquids. Keep subject at rest. Obtain Emergency Medical Attention. Small amounts which accidentally enter the mouth should be rinsed out until the taste is gone.

5: FIRE FIGHTING MEASURES

FIRE AND EXPLOSIVE PROPERTIES:

Flash Point:	**58°F TCC = 14.4°C**
Auto-ignition Temperature:	**858°F = 458°C**
Lower Explosion Limit:	**2.6% Volume**
Upper Explosion Limit:	**12.8% Volume**

Unusual Hazards:
Very Flammable liquid; will release invisible vapors that form flammable mixtures that might ignite or explode. Vapors can travel considerable distances to an ignition source and flash back. Toxic gasses will form upon combustion. Material can accumulate static charges which can cause an incendiary electrical discharge. Material will dissolve in water.

Extinguishing Agents:
Water spray, regular foam, dry chemical, carbon dioxide are appropriate. Use extinguishing media appropriate for surrounding media. Avoid spraying water directly into storage containers due to danger of boilover. Use water spray to cool adjacent fire exposed containers to avoid rupture and spattering.

Personal Protective Equipment:
As in any fire, wear self contained breathing apparatus (pressure demand, MSHA/NIOSH approved or equivalent) and full protective gear.

Special Procedures:
None.

6: ACCIDENTAL RELEASE MEASURES

Personal Protection:
Appropriate protective equipment must be worn when handling a spill of this material. See the PERSONAL PROTECTION MEASURES Section for recommendations. If exposed to material during clean-up operations, see the FIRST AID PROCEDURES Section for appropriate actions.

Procedures:
Prevent ignition; stop leak; ventilate area; keep spectators away; contain spill immediately with inert noncombustible materials (e.g. sand, earth, absorbent). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.
CAUTION: Keep spills and cleaning runoff out of municipal sewers, watercourses and open bodies of water. Use water spray to disperse vapors.

7: HANDLING AND STORAGE

Handling:
Avoid contact with skin, eyes or clothing. Avoid breathing of mist or vapor. Never siphon by mouth.
Remove and wash contaminated clothing before reuse.
Practice good personal hygiene: Wash after handling; shower at end of work period.

Storage Conditions:
Keep away from heat, sparks and open flame. Protect from storage temperatures above 120°F.
Keep in a well ventilated space that is NFPA Class 1B. Consult NFPA and OSHA codes. Transfer operations must be electrically grounded.
Keep Out of Reach of Children.
Store upright in original closed container.
"Empty" containers retain product residue (liquid and/or vapor) that 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 due to explosion or fire hazard. Empty drums should be completely drained and properly bunged and promptly returned to a reconditioner or other proper disposal.

8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Respiratory Protection:
A respiratory program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Use of this product does not require respiratory protection under normal operating conditions but use of local exhaust ventilation is recommended, especially for confined spaces.
Where vapors or mists may occur, wear a MSHA / NIOSH approved (or equivalent) half-mask air purifying respirator. Air purifying respirators should be equipped with organic vapor cartridges and dust and mist filters.

Eye Protection:
Wear chemical splash goggles (ANSI Z87.1 or approved equivalent), or full face shield.

Hand Protection:
Wear gloves resistant to solvent permeation: neoprene, nitrile, polyvinyl alcohol, viton.

Other Protection:
None required.

FACILITY CONTROL MEASURES:

Ventilation:
Use with adequate ventilation. Local exhaust ventilation is recommended and explosion equipment is required.

Other Protective Equipment:
Facilities storing or utilizing this material should be equipped with eyewash and safety shower facilities.

9: PHYSICAL AND CHEMICAL PROPERTIES

TYPICAL

State	**Liquid**
Formula	**CH_3CH_2OH**
Appearance	**Clear**
Color	**Colorless**
Odor	**Characteristic sweet alcoholic**
Viscosity	**Very Thin**
pH as is	**Slightly acidic to neutral in water**
Specific Gravity @ 60°F	**0.7947**
Density @ 60°F	**6.62 Lbs/Gal**
Vapor Density (Air = 1)	**2.0**
Vapor Pressure	**100 mm Hg @ 25°C = 77°F**
Freezing Point	**< -113.8°C = -173°F**
Boiling Point	**77.78°C = 172°F**
Solubility in Water	**100% Complete**
Percent Volatility	**100%**
Evaporation Rate (BAc = 1)	**0.5 Approximate**
VOC %	**100% = 6.62 Lbs/Gal**
HAP %	**0% = 0 Lbs/Gal**

10: STABILITY AND REACTIVITY

Instability:
This material is considered stable.

Hazardous Decomposition Products:
There are no known hazardous decomposition products for this material except for Carbon Dioxide, Carbon Monoxide if burned.

Hazardous Polymerization:
This product will not undergo polymerization.

Incompatibility:
This product is not compatible with strong acids and strong oxidizing agents.

11: TOXICOLOGICAL INFORMATION

Inhalation of vapor is harmful: Overexposure to high concentrations can cause eye, nose, throat, lung irritation; CNS (brain) effects, dizziness, difficulty in breathing, unconsciousness, coma and death. There are reports of heart irregularities from massive exposures.
Skin contact can incur absorption. Repeated or prolonged contact is irritating.
Eye contact is irritating.
Oral consumption is irritating and harmful, or possibly fatal if swallowed. Pulmonary aspiration can enter lungs and cause damage.

12: ECOLOGICAL INFORMATION

Toxic to fish and food organisms.

13: DISPOSAL CONSIDERATIONS

Procedure:
Incinerate liquid and contaminated solids in accordance with local, state and federal regulations.

14: TRANSPORTATION INFORMATION

Proper Shipping Name: Alcohols, n.o.s.
Hazard Class: 3
Identification No.: UN1987
Packing Group: II
Label: Flammable
Emergency Response Guide No.: 26 / 127
RQ: None Lb.

15: REGULATORY INFORMATION

WORKPLACE CLASSIFICATIONS

This product is considered to be hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

This product is a 'controlled' product under the Canadian Workplace Hazardous Materials Information System (WHMIS).
Status is not available.

EMERGENCY PLANNING AND COMMUNITY RIGHT - TO KNOW (SARA TITLE III)

Section 311/312 Categorizations (40 CFR 370)
This product is a hazardous material under 29 CFR 1910.1200, and therefore is covered by Title III of SARA and is classified into the following hazard categories:
Immediate (Acute) Health
Delayed (Chronic) Health
Fire

Section 313 Information (40 CFR 372)
This product does contain chemicals which are listed in Section 313 at or above the de minimis concentrations.

CERCLA INFORMATION (40 CFR 302.4)

Releases of this material 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 the state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

RCRA INFORMATION
When a decision is made to discard this material as supplied, it does meet RCRA's characteristic definition of ignitability, and is listed in 40 CFR 261.33.

CHEMICAL CONTROL LAW STATUS
All components of this product are listed or are excluded from listing on the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16: OTHER SUPPLEMENTAL INFORMATION

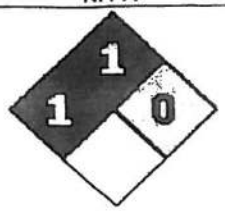
ABBREVIATIONS

ACGIH	**American Conference of Governmental Industrial Hygienists**
OSHA	**Occupational Safety and Health Administration**
TLV	**Threshold Limit Value**
PEL	**Permissible Exposure Limit**
TWA	**Time Weighted Average**
STEL	**Short Term Exposure Limit**
BAc	**Butyl acetate**
NE	**Not Established**
ND	**Not Determined**
NA	**Not Applicable**

MSDS # 1930
Brenntag Northeast

ADM

Material Safety Data Sheet

NFPA	WHMIS	Personal Protective Equipment	Transport Symbol
			

Preparation Date 22-Apr-2009 Revision Date 22-Apr-2009 Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Citric Acid Anhydrous

Product Code: 020410, 020420, 020440

Synonyms:
Acido 2-Hydroxy-1,2,3-Propanetricarboxylic. Aciletten. Acido beta-Hydroxytricarballylic. Citrate. Citretten. Citronensaeure. NSC 30279. Acido 2-hydroxypropane-1,2,3-tricarboxylic. E 330.

Use of the Substance / Preparation:
Food additive

Contact Manufacturer:
Archer Daniels Midland Company
4666 Faries Parkway
Decatur, IL 62526, USA
Telephone Number: 217 424-5200

Emergency Telephone Number:
Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

Irritating to eyes, Irritating to skin, Corrosive to metals (as aqueous solution).

Appearance White Colorless **Physical State** Solid Powder **Odor** Odorless

Potential Health Effects

Principle Routes of Exposure	Eye contact, Skin contact, Inhalation, Ingestion.
Acute Effects	
Eyes	Contact with eyes may cause irritation.
Skin	Avoid contact with skin. Prolonged skin contact may cause skin irritation.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Ingestion may cause irritation to mucous membranes.
Chronic Effects	Avoid repeated exposure.
Aggravated Medical Conditions	No information available..
Potential Environmental Effects	See Section 12 for additional ecological information.
Toxicological information	See Section 11 for additional toxicological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Family Acids

The following component(s) in this product are considered hazardous under applicable OSHA (USA), WHMIS (Canada), and/or NOM-002-SCT-2003 (Mexico) regulations

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Citric acid	77-92-9	99-100	yes

4. FIRST AID MEASURES

General Advice If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

Eye Contact immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eyes wide open while rinsing. If symptoms persist, call a physician.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

Inhalation Move to fresh air.

Ingestion Clean mouth with water and afterwards drink plenty of water.

Notes to Physician Treat symptomatically.
Protection of First-aiders Use personal protective equipment.

5. FIRE-FIGHTING MEASURES

Flammable Properties Fine dust dispersed in air may ignite.

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO_2). Water spray. Foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

Hazardous Combustion Products Carbon monoxide (CO), Carbon dioxide (CO_2), Thermal decomposition can lead to release of irritating gases and vapours.

Explosion Data
Sensitivity to mechanical impact No
Sensitivity to static discharge No

Specific Hazards Arising from the Chemical None known

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health 1 Stability and Reactivity 0

Flammability 1 Physical hazard -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
Methods for Clean-up	Pick up and transfer to properly labelled containers. Avoid dust formation. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling	Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Do not breathe vapours/dust. Use only in area provided with appropriate exhaust ventilation. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite.
Storage	Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labelled containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

This product is not known to contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures	Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Eye/face Protection	Tightly fitting safety goggles.
Skin and Body Protection	Long sleeved clothing, Boots, Impervious gloves.
Respiratory Protection	Breathing apparatus with filter.
General Hygiene Considerations	When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White Colorless	**Physical State**	Solid Powder
Odor	Odorless	**Odor Threshold**	No information available
Flash Point	345°C / 653°F	**Autoignition Temperature**	1010°C / 1850°F
Boiling point	No information available	**Melting/Freezing Point**	153°C / 307°F
Flammability Limits in Air	No information available	**Explosion Limits**	No information available
pH	2.1	**Vapor Pressure**	No information available
Water Solubility	Soluble	**Specific Gravity**	No information available
Evaporation Rate	No information available	**Vapor Density**	No information available
Density	1.665		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Amines. Heavy metals. Strong oxidizing agents. Strong bases.
Hazardous Decomposition Products	No information available.
Possibility of Hazardous Reactions	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

LD50 Oral: 3000(rat) mg/kg
LD50 Dermal: No information available
LC50 Inhalation: No information available

Toxicology data for the components

Chemical Name	Weight %	LD50 Oral	LD50 Dermal	LC50 Inhalation
Citric acid	99-100	3000 mg/kg Rat		

Chronic Effects

Carcinogenicity

There are no known carcinogenic chemicals in this product.

OSHA: (Occupational Safety & Health Administration)
Not Listed
ACGIH: (American Conference of Governmental Industrial Hygienists)
Not Listed
NTP: (National Toxicity Program)
Not Listed
Mexico: (Official Mexican Norm NOM-010-STPS-1999)
Not Listed
IARC: (International Agency for Research on Cancer)
Not Listed

Subchronic Toxicity	No information available.	**Irritation**	No information available.
Corrosivity	Corrosive to metals (as aqueous solution).	**Sensitization**	No information available.
Neurological Effects	No information available.	**Mutagenic Effects**	No information available.
Reproductive Effects	No information available.	**Developmental Effects**	No information available.
Teratogenicity	No information available.	**Target Organ Effects**	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Environmental properties.

Chemical Name	Acute Fish Toxicity	Daphnia (Water flea)	Fresh Water Algae
Citric acid	96 Hr LC50 Lepomis macrochirus: 1516 mg/L [static]	72 Hr EC50 Daphnia magna: 120 mg/L	

Chemical Name	Weight %	log Pow
Citric acid	99-100	-1.72

Persistence/Degradability	Readily biodegradable.
Bioaccumulation/ Accumulation	No information available.
Mobility	Soluble.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods	Hazardous waste. Dispose of in compliance with the laws and regulations pertaining to this product in your jurisdiction.
Contaminated Packaging	Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

Domestic transport regulations (USA)

DOT Not regulated

Domestic transport regulations (Canada)

TDG Not regulated

Domestic transport regulations (Mexico)

MEX Not regulated

International transport regulations

ICAO Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

The components of this product are reported in the following inventories:

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	AICS	ENCS	CHINA	PICCS	KECL	NZLoC
Citric acid	Yes	Yes	No	Yes 201-069-1	No	Yes	Yes 2-1318	Yes	Yes	Yes KE-20831	Yes

Legend

TSCA - Toxic Substances Control Act, Section 8(b) Inventory (USA). DSL - Domestic Substance List (Canada). NDSL - Non Domestic Substances List (Canada). EINECS - European Inventory of Existing Commercial Chemical Substances (EU). ELINCS - European List of Notified Chemical Substances (EU). AICS - Australian Inventory of Chemical Substances (Australia). ENCS - Existing and New Chemical Substances (Japan). CHINA - Chinese Inventory of Existing Chemical Substances (China). PICCS - Inventory of Chemicals and Chemical Substances (Philippines). KECL - Korean Existing and Evaluated Chemical Substances (Korea). NZLoC - New Zealand Inventory of Chemicals (New Zealand)

USA

Federal Regulations

Ozone Depleting Substances:

No Class I or Class II material is known to be used in the manufacture of, or contained, in this product.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product is not known to contain any chemicals which are subject to the reporting requirements of the Act or regulations contained in 40 CFR 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product is not known to contain any HAPs.

State Regulations

California Proposition 65

Proposition 65 chemicals are not expected to be found in this product above those naturally present in their agricultural source. Proposition 65 exempts naturally occurring listed chemicals from an obligation to label.

State Right-to-Know

No known components subject to "Right-To-Know" legislation in the following States:

Chemical Name	Weight %	Illinois	Massachusetts	New Jersey	Pennsylvania	Rhode Island
Citric acid	99-100	No	No	No	No	No

Canada

WHMIS Product Classification
Class E: Corrosive Material.

WHMIS Ingredient Disclosure List IDL
Component Information

Chemical Name	Weight %	WHMIS IDL	Threshold limits
Citric acid	99-100	Listed	1 %

(NPRI) Canadian National Pollutant Release Inventory
No known component is listed on NPRI.

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

Mexico

Mexico - Grade Slight risk, Grade 1

16. OTHER INFORMATION

Prepared By	Specialty Food Ingredients
Preparation Date	22-Apr-2009
Revision Date	22-Apr-2009
Revision Summary	Implementation into software system.

Disclaimer
The information provided on this (M)SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of (M)SDS

MEDALLION INTERNATIONAL, INC.
233 West Parkway
Pompton Plains, NJ 07444 USA

FOR CHEMICAL EMERGENCY CALL INFOTRAC: 800-535-5053

HMIS CLASSIFICATION		
Health	1	0 = least
Fire	2	1 = slight
Reactivity	0	2 = moderate
Personal Protection:	D	3 = high
		4 = extreme

MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION AND GENERAL INFORMATION

PRODUCT NAME: LAVENDER OIL

CAS #8000-28-0
FEMA #2622

SECTION II - HAZARDOUS INGREDIENTS

CONTAINS: SARA TITLE III - This product does not contain any Toxic Chemicals subject to the reporting requirements of Section 313 40 CFR Part 372.

SECTION III - PHYSICAL DATA

BOILING POINT:(Deg.F): N.F.
MELTING POINT (Deg.F): N.F.
SPECIFIC GRAVITY: @25 C .876 - .892
SOLUBILITY IN WATER: Insoluble
APPEARANCE: Pale yellow to amber liquid.

FLASH POINT: 154°F
VAPOR DENSITY: N.F.
%VOLATILES: 100%

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA: WATER FOAM x CO_2 x DRY CHEMICAL x
SPECIAL FIRE FIGHTING PROCEDURES: N.F.
UNUSUAL FIRE AND EXPLOSION HAZARDS: N.F.
HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide, carbon monoxide and/or smoke.
DEPARTMENT OF TRANSPORTATION HAZARD CLASSIFICATION: Non-Hazardous, Non-Restricted.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE (ACGIH TLV): N.F.
THRESHOLD LIMIT VALUE (OSHA PEL): N.F.
CARCINOGENICITY: NTP MONOGRAPH: N.F. IARC MONOGRAPH: N.F.

ACUTE TOXICITY DATA:
ORAL LD50: >5 g/kg. (Rat)
INHALATION LD50: N.F.
DERMAL LD50: >5 g/kg. (Rabbit)

HEALTH HAZARDS (ACUTE AND CHRONIC):
INGESTION: N.F.
INHALATION: Vapors may by irritating.
SKIN CONTACT: Liquid may be irritating.
IRRITATION (EYE): Liquid may be irritating.

OTHER EFFECTS:
INGESTION: Liquid may be irritating to mouth and throat.
INHALATION: Vapors may be irritating to nose, throat and mucous membranes.

Continued on page 2

LAVENDER OIL

continued from page 1

SKIN CONTACT: Liquid may be irritating to skin.
EYE CONTACT: Liquid may be irritating to eyes.

SECTION VI - EMERGENCY FIRST AID PROCEDURES

EYE CONTACT: Remove contact lenses. Flush immediately with cold clean water for at least 15 minutes. Contact a physician immediately.
SKIN CONTACT: The affected area should be thoroughly washed with soap and water. Flush with large quantities of water. If irritation persists, contact a physician.
INHALATION: Remove to fresh air and contact a physician if necessary.
INGESTION: Administer water or milk to dilute. Contact a physician or local poison control center immediately.

SECTION VII - REACTIVITY DATA

This material presents no significant reactivity hazard.
Hazardous polymerization will not occur and it will not react violently with water.
Contact with highly reactive chemical oxidants should be avoided.
If burned this product will produce carbon monoxide and/or carbon dioxide.

SECTION VIII - PERSONAL PROTECTION

EYES: The use of goggles or a face shield is recommended.
RESPIRATORY: Respiratory protection is normally not required in well ventilated areas however, NIOSH approved respiratory protection may be required when the material is rated toxic by inhalation or if the material is to be used in a confined area.
OTHER PROTECTIVE EQUIPMENT: Chemical resistant gloves are recommended.
VENTILATION: Ventilation meeting ACGIH standards should be employed.
WORK/HYGIENIC PRACTICES: Use good, personal hygienic practices. Limit exposure to product whenever possible. Wash after any contact. Thoroughly wash any contaminated clothing or shoes before reuse.

SECTION IX - SPILL, LEAK AND WASTE DISPOSAL PROCEDURES

Remove any sources of flame or sparks. If in a confined area NIOSH approved respiratory protection may be required.
Absorb spills on vermiculite or other suitable absorbent material and remove to an approved disposal container.
Dispose of in accordance with current state, local and federal laws and regulations.

SECTION X - STORAGE AND HANDLING

Store in full tight containers in a cool dry place, away from light.

The information contained herein is based on data considered accurate and reliable: Nevertheless, you should perform your own investigation and independent verification. No warranty is expressed or implied regarding the accuracy or correctness of these data. Since the use of this information and the conditions of use of product are not within the control of Medallion International, Inc., it is the user's obligation to determine the condition of safe use of the product.

N.F. = Not Found
N.A. = Not Applicable
11/11/03 revised

Printed 8/25/11