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MSDS

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FOR EACH CHEMICAL, A MSDS SHEET WILL BE SENT ONLY ON THE
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REQUIRED MATERIAL SAFETY DATA SHEETS (MSDS) NOT INCLUDED IN
THIS MAILING WILL FOLLOW UNDER SEPARATE COVER.

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**FISHER SCIENTIFIC HAS A COMPLETE LINE OF SAFETY PRODUCTS AND INFORMATION FOR THE LABORATORY.
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THE NEW ACROS ORGANICS CATALOG OFFERS ONE OF THE BROADEST LINES OF ORGANIC CHEMICALS
IN THE WORLD. CONTACT YOUR LOCAL FISHER BRANCH TO PLACE AN ORDER, TO RECEIVE A CATALOG
OR TO RECEIVE A FREE SUBSCRIPTION TO THE ACROS ORGANICS ACTA.**

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid: Materials, light, ignition sources, dust generation, incompatible materials, excess heat.
Incompatibilities with Other Materials: Oxidizing agents.
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#: CAS# 50-81-7: CI7650000
LD50/LC50: CAS# 50-81-7: Oral, mouse: LD50 = 3367 mg/kg; Oral, rat: LD50 = 11900 mg/kg.
Carcinogenicity: L-Ascorbic acid - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Oral, rat: TDLo = 2500 mg/kg (female 1-22 day(s) after conception) fertility post-implantation mortality (e.g. dead and/or resorbed fetuses) per total number of implants).
Neurotoxicity: No information available.
Mutagenicity: No information available.
Other Studies: No information available.
See actual entry in RTECS for complete information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Other: No information available.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Waste generators are listed in US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT: No information available.
Canadian TDG: No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL TSCA: CAS# 50-81-7 is listed on the TSCA inventory.
Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.
Section 12b: None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.
SARA: Section 302 (H): None of the chemicals in this material have an RQ.
Section 302 (TFP): None of the chemicals in this product have a TFP.
Section 313: No chemicals are reportable under Section 313.
Clean Air Act: This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone Depletors.
This material does not contain any Class 2 Ozone Depletors.
Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATS

L-Ascorbic acid is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level: None of the chemicals in this product are listed.
European/International Regulations: None of the chemicals in this product are listed with EC Directives Hazard Symbols: Not available.
Risk Phrases: Safety Phrases: WGK (Water Danger/Protection) CAS# 50-81-7: 0
United Kingdom Occupational Exposure Limits
Canada
CAS# 50-81-7 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of D2A.
CAS# 50-81-7 is not listed on Canada's Ingredient Disclosure List.
Exposure Limits

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 7/13/1999 Revision #1 Date: 8/02/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages, or damages of any third party or for lost profits, or for any other damages, or for any other consequential or exemplary damages, however arising even if the company has been advised of the possibility of such damages.

**** MATERIAL SAFETY DATA SHEET ****

Magnesium Nitrate Hexahydrate
 13441

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Magnesium Nitrate Hexahydrate
 Catalog Numbers: S80665, M46 212, M46 500, M46-212, M46-500, M46212, M46500, NC8468549
 Synonyms: Magnesium Dinitrate Hexahydrate; Nitric Acid Magnesium Salt
 Hazardous Identification: Fisher Scientific
 Company Identification: 1 Reagent Lane
 Fairlawn, NJ 07410
 For information, call: 201-796-7100
 Emergency Number: 201-796-7100
 For CHEMTREC assistance, call: 800-424-9300
 For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	ELNCS#
13446-18-9	Magnesium nitrate hexahydrate	>98	unlisted

Hazard Symbols: Xi, O
 Risk Phrases: 36, 8

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: colorless or white.
 Danger! Strong oxidizer. Contact with other material may cause a fire. Irritant. May cause central nervous system depression. May cause dizziness, headache, nausea, vomiting, and diarrhea, possibly with blood. Excessive amounts of magnesium may cause central nervous system depression, respiratory paralysis, and cardiac arrest.
 May cause severe eye, skin and respiratory tract irritation with possible burns.
 Target Organs: Blood, kidneys.

Potential Health Effects

Eye: Causes eye irritation. May cause permanent corneal opacification. Skin may cause chemical conjunctivitis.

Skin: May cause severe irritation and possible burns.

Ingestion: May cause methemoglobinemia, cyanosis, convulsions, and death. May cause vomiting, and diarrhea, possibly with blood. Excessive amounts of magnesium may cause central nervous system depression, respiratory paralysis, and cardiac arrest.

Inhalation: Causes respiratory tract irritation. May cause methemoglobinemia, cyanosis, convulsions, tachycardia, dyspnea, and death. May cause effects similar to those described for ingestion. Can produce delayed pulmonary edema. May cause acute pulmonary edema, asphyxia, chemical pneumonitis, and upper airway obstruction caused by edema.

Chronic: causes methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness, dizziness, breath shortness, cyanosis, rapid heart rate, unconsciousness and possible death. Repeated exposure may cause kidney damage and digestive tract abnormalities. Effects may be delayed.

**** SECTION 4 - FIRST AID MEASURES ****

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

Skin: Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Do not give anything by mouth to an unconscious person. Get medical aid. Do not induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupsfuls of milk or water.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. DO NOT use mouth-to-mouth respiration.

Notes to Physician: Treat symptomatically and supportively.

Antidote: Use of Calcium disodium EDTA as a chelating agent should be determined by qualified medical personnel.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:
 As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Strong oxidizer. Contact with combustible materials may cause a fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water with caution and in flooding amounts. Some oxidizers may react explosively with hydrocarbons (fuel) and organic materials. Burning if ignited, a very intense fire. Containers may explode when heated.

Extinguishing Media:
 Use water only. Contact professional fire-fighters immediately. For small fires DO NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires flood fire with water from a distance.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:
 Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Remove all sources of ignition. Provide ventilation. Do not use combustible materials such as paper towels to clean up spill.

**** SECTION 7 - HANDLING AND STORAGE ****

Handling:
 Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid contact with clothing and other combustible materials. Avoid ingestion and inhalation. Use with adequate ventilation.

Storage:
 Keep away from heat, sparks, and flame. Do not store near combustible materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:
 Facilities storing or utilizing this material should be equipped with an eye flush facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Chemical Name	Exposure Limits		OSHA - Final PELs
	ACGIH	NIOSH	
Magnesium nitrate hexahydrate	none listed	none listed	none listed

OSHA Vacated PELs:
 Magnesium nitrate hexahydrate:
 No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear a chemical apron. Wear appropriate protective clothing to prevent skin exposure.

Respirators:
 Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Solid
Appearance: colorless or white
Odor: none reported
Color: none reported
Water Solubility: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available.

Boiling Point: 526 deg F
Flash Point: Not applicable.
Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
NFPA Rating: (est.) Health: 3; Flammability: 0; Reactivity: 1
Explosion Limits, Lower: Not available.
Explosion Limits, Upper: Not available.
Decomposition Temperature: 526 deg F
Solubility: Soluble in water.
Specific Gravity/Density: (at 20 deg C) 1.170
Molecular Formula: MgN2O6 (6 H2O)
Molecular Weight: 1216.3592

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability:
Stable at room temperature in closed containers under normal storage conditions under all conditions.
Incompatible Materials:
Incompatible materials, ignition sources, dust generation, excess heat, combustible materials, reducing agents.
Incompatibilities with Other Materials:
Reducing agents.
Hazardous Decomposition Products:
Nitrogen oxides, oxides of magnesium.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 13446-18-9: OM3756000
LD50/LC50:
CAS# 13446-18-9: Oral, rat: LD50 = 5440 mg/kg.
Carcinogenicity:
Magnesium nitrate hexahydrate - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology:
No information available.
Teratogenicity:
No information available.
Reproductive Effects:
No information available.
Neurotoxicity:
No information available.
Mutagenicity:
No information available.
Other Studies:
See actual entry in RTECS for complete information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

See actual entry in RTECS for complete information.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. For classification determination are listed in 40 CFR Parts 261, 262 and 263. Additional state, federal, and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
Shipping Name: MAGNESIUM NITRATE
Hazard Class: 5.1
UN Number: UN1474
Packing Group: III
Canada
Shipping Name: MAGNESIUM NITRATE
Hazard Class: 5.1
UN Number: UN1474

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
TSCA
CAS# 13446-18-9 is not on the TSCA Inventory. It is a hydrate and exempt from TSCA Inventory requirements (40CFR720.3(u)(2)).
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.
SARA
Section 302 (PG)
None of the chemicals in this material have an RQ.
Section 302 (VPG)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 13446-18-9: acute, chronic, flammable.
Section 313
None of the chemicals are reportable under Section 313.
Clean Air Act
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone Depleters.
This material does not contain any Class 2 Ozone Depleters.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
Magnesium nitrate hexahydrate is not present on state lists from CA, CT, NH, MA, NY, RI, or VT.
California Significant Risk Level:
None of the chemicals in this product are listed.
European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: Xi O
Risk Phrases:
R 36 Irritating to eyes.
R 8 Contact with combustible material may cause fire.
Safety Phrases:
S 7 Keep container tightly closed.
S 15 Keep away from heat.

WGK (Water Danger/Protection)

CAS# 13446-18-9: 1
United Kingdom Occupational Exposure Limits

Canada

None of the chemicals in this product are listed on the DSL/NDSL list.
This product has a WHMIS classification of C.
CAS# 13446-18-9 is not listed on Canada's Ingredient Disclosure List.
Exposure Limits

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 9/02/1997 Revision #4 Date: 8/02/2000
The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the material for any particular purpose. In no way shall the company be liable for any claims, damages, or losses, incidental or consequential, arising from the use of this information, even if the company has been advised of the possibility of such damages.

**** MATERIAL SAFETY DATA SHEET ****

Naphthalene
16120

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Naphthalene
 Catalog Numbers:
 N7-500, N7500, S76307-1, S80100, N134-500, N134-500, N134500, N7 500,
 N7-500, N7500, S76307-1, S80100-1MF dha, S80100-1MFdha, S801001MFdha
 Synonyms: tar camphor, Naphthalin, Naphthalinum, Naphthene; Alboocarbon;
 Naphthalin
 Company Identification: Fisher Scientific
 1 Reagent Lane
 Fairlawn, NJ 07410
 For information, call: 201-796-7100
 Emergency Number: 201-796-7100
 For CHEMTREC assistance, call: 800-424-9300
 For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
91-20-3	Naphthalene	ca. 100	202-049-5

Hazard Symbols: KN
 Risk Phrases: 20/21/23

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW
 Appearance: white. Flash Point: 174 deg F.
 Warning: Flammable solid. May cause allergic skin reaction. May be harmful if absorbed through the skin. Microscopic studies of swimmers' hair and kidney damage. Causes eye and skin irritation. Causes digestive and respiratory tract irritation. May be fatal if inhaled. May cause blood abnormalities.
 Target Organs: Blood, kidneys, central nervous system, liver, eyes, skin.

Potential Health Effects

Eye: Naphthalene is an eye irritant. The vapor causes eye irritation at 15 ppm. Eye contact with the solid material may result in conjunctivitis, superficial injury to the cornea, diminished visual acuity, and other effects. It may cause cataracts.
 Skin: Causes mild skin irritation. May be absorbed through the skin in harmful amounts. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material.
 Ingestion: Harmful if swallowed. May cause liver and kidney damage. May cause methemoglobinemia, cyanosis, convulsions, and death. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. Ingestion of large quantities may cause severe hemolytic anemia and hemoglobinuria.
 Inhalation: May be fatal if inhaled. Causes respiratory tract irritation. May be fatal if inhaled. Causes vomiting, abdominal pain, fever, and labored breathing. Readily absorbed when inhaled. Material volatilizes at room temperature.
 Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause liver and kidney damage. May cause anemia and other blood cell abnormalities. Animal studies have reported that fetal effects/abnormalities were observed. Chronic exposure may cause lung damage. Laboratory experiments have resulted in mutagenic effects. Chronic exposure may cause corneal injury, optical neuritis, blurred vision, and possible cataract formation. Chronic inhalation, skin absorption or ingestion of naphthalene have caused severe hemolytic anemia.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
 Skin: Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
 Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupsful of milk or water. Never give anything by mouth to an

unconscious person. Get medical aid immediately.

Inhalation: from exposure to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. DO NOT use mouth-to-mouth respiration. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
 Notes to Physician: Individuals with a glucose-6-phosphate dehydrogenase deficiency are hypersensitive to the effects of naphthalene.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information: wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Use water spray to keep fire-exposed containers cool. Dust can be an explosion hazard when fire extinguished. Sparks or flame. May re-ignite after fire is extinguished. Containers may explode when heated.
 Extinguishing Media: Use dry sand or earth to smother fire. Water or foam may cause frothing. Cool containers with flooding quantities of water until well after fire is out. Use dry chemical, carbon dioxide, or appropriate foam.

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.
 Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Scoop up with a nonsparking tool. Then place into a suitable container for disposal. Prevent generating dusty conditions. Remove all sources of ignition.

**** SECTION 7 - HANDLING AND STORAGE ****

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Do not breathe dust, vapor, or gas. Use only in a chemical fume hood.
 Storage: Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Separate from oxidizing materials.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.
 Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Naphthalene	10 ppm; 15 ppm STEL; skin - potential for cutaneous absorption	10 ppm TWA; 50 mg/m ³ TWA 250 ppm IDLH	10 ppm TWA; 50 mg/m ³ TWA

OSHA Vacated PELs:

Naphthalene:
10 ppm TWA; 50 mg/m³ TWA

Personal Protective Equipment

Eyes: Wear chemical goggles.
 Skin: Wear appropriate protective gloves to prevent skin exposure.
 Clothing: Wear appropriate protective clothing to prevent skin exposure.
 Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace

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Exposure Limits

CAS# 91-20-3: OEL-ARAB Republic of Egypt: TWA 10 ppm (50 mg/m3)
OEL-AUSTRALIA: TWA 10 ppm (50 mg/m3); STEL 15 ppm (75 mg/m3)
OEL-DENMARK: TWA 10 ppm (50 mg/m3); STEL 15 ppm (75 mg/m3)
OEL-FINLAND: TWA 10 ppm (50 mg/m3); STEL 20 ppm (100 mg/m3)
OEL-FRANCE: TWA 10 ppm (50 mg/m3)
OEL-GERMANY: TWA 10 ppm (50 mg/m3)
OEL-HUNGARY: TWA 40 mg/m3; STEL 80 mg/m3; Skin
OEL-THE NETHERLANDS: TWA 10 ppm (50 mg/m3)
OEL-THE PHILIPPINES: TWA 10 ppm (50 mg/m3)
OEL-POLAND: TWA 20 mg/m3
OEL-SWITZERLAND: TWA 10 ppm (50 mg/m3)
OEL-UNITED KINGDOM: TWA 10 ppm (50 mg/m3); STEL 15 ppm (75 mg/m3)
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACOI TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACOI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MDS Creation Date: 5/14/1999 Revision #2 Date: 8/02/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In any event, the company shall be liable for any actual, direct or indirect, incidental, consequential or exemplary damages, however arising, even if the company has been advised of the possibility of such damages.

Chemical Stability:
Stable. Readily absorbs carbon dioxide and moisture from the air and deliquesces.
Conditions to Avoid:
Incompatibilities with Other Materials:
Generates large amounts of heat when in contact with water, acids, metals, steam and splatters. Reacts with chlorine dioxide, nitrobenzene, 2,4,6-trinitrochlorobenzene, bromine, peroxidized tetrahydrofuran, sugars, germanium cyclopentadiene, maleic dicarbide, Carbazole, metals such as aluminum, tin, and zinc to cause formation of flammable hydrogen gas.
Hazardous Decomposition Products:
Oxides of Potassium.
Hazardous Polymerization: Has not been reported.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
CAS# 1310-58-3: T21200000
LD50/LC50:
CAS# 1310-58-3: Oral, Rat: LD50 = 273 mg/kg.
Carcinogenicity:
None listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology:
No data available.
Teratogenicity:
No information reported.
Reproductive Effects:
No data available.
Neurotoxicity:
No data available.
Mutagenicity:
No data available.
Other Studies:
No data available.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:
Fish: Mosquito Fish: LC50 = 80.0 mg/L; 24 Hr.; Unspecified
**** SECTION 13 - DISPOSAL CONSIDERATIONS ****
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.
US EPA guidelines for the classification determination are listed in and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
Shipping Name: POTASSIUM HYDROXIDES, SOLID
Hazard Class: 8
UN Number: UN1813
Packing Group: II
Canadian TDG
Shipping Name: POTASSIUM HYDROXIDE
Hazard Class: 8
UN Number: UN1813

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
TSCA
CAS# 1310-58-3 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA
Section 302 (FQ)
CAS# 1310-58-3: final EQ = 1000 pounds (454 kg)
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS# 1310-58-3: acute, reactive.
Section 313
No chemicals are reportable under Section 313.

Clean Air Act:
This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone Depleters.
This material does not contain any Class 2 Ozone Depleters.
Clean Water Act:
CAS# 1310-58-3 is listed as a Hazardous Substance under the CWA.
Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
Potassium hydroxide (KOH) can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
None of the chemicals in this product are listed.
European/International Regulations
Hazard Symbols: C
Risk Phrases:
R 22 Harmful if swallowed.
R 35 Causes severe burns.

Safety Phrases:
S 26 In case of contact with eyes, rinse immediately with plenty of water. Seek medical advice.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
WGK (Water Danger/Protection)
Risk# 1310-58-3: 1
United Kingdom: Occupational Exposure Limits
CAS# 1310-58-3: OES-United Kingdom, STEL 2 mg/m3 STEL
Canada

Exposure Limits
CAS# 1310-58-3: OEL-AUSTRALIA: TWA 2 mg/m3
OEL-SEATTLE: TWA 2 mg/m3
OEL-DENMARK: TWA 2 mg/m3
OEL-FINLAND: STEL 2 mg/m3
OEL-FRANCE: STEL 2 mg/m3
OEL-JAPAN: STEL 2 mg/m3
OEL-THE NETHERLANDS: TWA 2 mg/m3
OEL-SWITZERLAND: TWA 2 mg/m3
OEL-UNITED KINGDOM: TWA 2 mg/m3; STEL 2 mg/m3
OEL-USA: OSHA: PEL: TWA: 0.1 mg/m3; STEL: 0.2 mg/m3
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGIH TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

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