

IMPORTANT
MATERIAL SAFETY DATA SHEET

READ CAREFULLY BEFORE USING CHEMICAL
OSHA requires that this form be kept on file.

Product No. KM 686 M

Product Name PHENOLPHTHALEIN

SOLUTION

EXTREME Hazardous to Health and the Environment	Health Hazard 3
Flammable	Flammability 3
Corrosive	Corrosivity 0

Chemical Synonyms None

Formula Mixture

C.A.S. No. 77-09-8

Principal Hazardous Component(s)
Phenolphthalein
Ethyl Alcohol* SDA-3A 190 proof C.A.S. #64-17-5

% <1% <99%	PEL none 200ppm	TLV Units none 200ppm
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* Chemical subject to the reporting requirements of SARA Title III.

Melting Point (°F)	NA	Specific Gravity (H ₂ O=1)	0.791
Boiling Point (°F)	148°F	Percent Volatile by Volume (%)	ca 100
Vapor Pressure (mm Hg)	97 @ 68°F	Evaporation Rate	-----
Vapor Density (Air=1)	1.1		
Solubility in Water	100%		
Appearance & Odor	Clear colorless liquid with a characteristic pungent alcohol odor.		
Flash Point (Method Used)	52°F	Flammable Limits in Air % by Volume	Lower 6.7 Upper 36.5
Extinguisher Media	Carbon dioxide, dry chemical, alcohol foam, and water mist or fog.		

Special Firefighting Procedures

Use a blanket effect to smother fire. Wear self contained breathing apparatus.

Unusual Fire and Explosion Hazards

Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks, or flames and can react vigorously with oxidizing agents.

SBL4330 Nasco Intermediate Sc Kit GR 4-9

D.O.T. Denatured alcohol solution, 3, NA1987, PGI

DEC 21 1995

None

9344

Effects of Overexposure
Contains methanol, a poisonous, narcotic chemical that can affect the body through inhalation, ingestion, and perhaps prolonged or repeated skin contact. Absorption by inhalation is rapid and excretion is much slower than for Ethyl alcohol, resulting in delayed effects or compounding of effects by repeated exposure. It is important to be aware that after ingestion or inhalation, initial symptoms may be only that of mild intoxication but may become severe after 12 to 18 hours. Toxic effects are exerted upon the central nervous systems, especially the optic nerve. Ingestion can produce blindness: 100-250 ml can be fatal. Symptoms of over exposure include dizziness, visual impairment, nausea, respiratory failure, muscular incoordination and narcosis, prolonged or repeated skin contact may cause dermatitis, edema, scaling, and possibly systemic effects.

Emergency and First Aid Procedures

WARNING! FLAMMABLE! Keep away from heat, sparks and ignition sources. Harmful if swallowed, avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin and clothes. Wash thoroughly after handling. Keep container closed. Contains methyl alcohol. Do not breathe vapors. FIRST AID: CALL A PHYSICIAN. Remove contaminated clothing. Wash skin with soap and water. EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. INGESTION: If swallowed, induce vomiting after giving two glasses of water. Never give anything by mouth to an unconscious person. NOTES TO PHYSICIAN: Ingestion of large quantities of this material will result in Methy Alcohol poisoning. In such case, treatment should include the following: hypoglycemia; the intravenous administration of ethanol (10 ml/kg) to interfere with the metabolism of methanol; and the administration of sodium bicarbonate to correct acidosis.

Stability	Conditions to Avoid
Stable <input checked="" type="checkbox"/> Unstable <input type="checkbox"/>	Heat
Incompatibility (Materials to Avoid)	Strong oxidizer agents such as nitrates, perchlorates or sulfuric acid.

Hazardous Decomposition Products
Toxic gasses and vapors (Carbon monoxide, formaldehyde) may be released in a ethanol fire.

Hazardous Polymerization
May ☐ Will Not ☒ Occur
Heat, strong oxidizing agents.

Steps to be Taken in Case Material is Released or Spilled

1. Remove all ignition sources. 2. Provide adequate ventilation. 3. Small quantities may be absorbed on paper towels. Evaporate in a place (such as a flame hood) Burn paper in an approved incinerator or open pit away from buildings and people. Large quantities can be collected and stored in a suitable combustion chamber. Spills in sensitive areas may be flushed to ground with water and do not flush to sewer or other confined space.

Waste Disposal Method:
Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalytic gas absorber in venturi tubes, dry sand, earth or a similar material and dispose in a secured sanitary landfill. Absorbents in a suitable combustion chamber; dispose of via a licensed waste solvent disposal company, or incinerate via filtration procedures.

SECTION VII SPECIAL PROTECTION INFORMATION
Respiration Protection
NIOSH approved air-supplied respirator or self-contained breathing apparatus (Specify Type)

Ventilation	Local Exhaust	To meet TLV requirements	Special
Protective Gloves	Rubber Gloves		
Other Protective Equipment	Impervious aprons, boots and face shields where splashing can occur.		

SECTION VIII SPECIAL PRECAUTIONS
Precautions to be Taken in Handling & Storing

Keep container tightly closed when not in use.
Ground and electrically interlocked containers for transfer. Use spark-proof tools. No smoking in areas of use or storage. Avoid prolonged or repeated contact with eyes, skin and clothes. Wash thoroughly after handling. Keep container closed. Do not breathe vapors. Do not get on skin or clothes. Do not get in eyes. Do not get on face. Do not get on hands. Do not get on feet. Do not get on shoes. Do not get on socks. Do not get on underwear. Do not get on pajamas. Do not get on nightgown. Do not get on robe. Do not get on towel. Do not get on blanket. Do not get on bedspread. Do not get on pillow. Do not get on cushion. Do not get on chair. Do not get on sofa. Do not get on rug. Do not get on carpet. Do not get on floor. Do not get on wall. Do not get on ceiling. Do not get on door. Do not get on window. Do not get on screen. Do not get on curtain. Do not get on blind. Do not get on shade. Do not get on valance. Do not get on drape. Do not get on pleat. Do not get on fringe. Do not get on tassel. Do not get on pom-pom. Do not get on tassel. Do not get on pom-pom.

Other Precautions
Read label on container before using. Do not wear contact lenses when working with chemicals.
Provide preplacement medical exams for industrially exposed workers, with emphasis on neurological and visual functions, liver and kidney systems, provide suitable training to those working with Methanol. Monitor the work place, keep records.

Approved by	Steven C. Quandt	Effective Date	11/14/94	For laboratory use only. Not for an industrial use. Keep out of reach of children.
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CHEMTREC 800-424-9300

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Product No. KM 1001 M

Product Name CALCIUM HYDROXIDE.

POWDER

Formula $Ca(OH)_2$

C.A.S. No. 1305-62-0

SECTION III
Principal Hazardous Component(s)

Calcium Hydroxide* C.A.S. #1305-62-0

% P.E.L. None Established

T.V. Units 15 mg/m³

OSHA

Health Hazard	1
Flammability	0
Reactivity	1

SECTION II
Physical Properties

Melting Point (°F)	N/A	Specific Gravity (H ₂ O=1)	2.24
Boiling Point (°F)	>580°C dissociates	Percent Volatile by Volume (%)	N/A
Vapor Pressure (mm Hg)	(-1) above 580°C	Evaporation Rate (=1)	N/A
Vapor Density (Air=1)	N/A		
Solubility in Water	0.185 gr/cc at 0°C		
Appearance & Odor	Light gray powder, slight ammonia odor.		

SECTION IV
Hazardous Ingredients

Flash Point (Method Used)	N/A	Flammable Limits in Air % by Volume	Lower N/A	Upper N/A
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Extinguisher Media As necessary to control surrounding area fire.

Special Firefighting Procedures

Material is caustic. When heated above 580°C, will dissociate producing water vapor and calcium oxide (CaO). Firefighters should wear full protective clothing, eye protection, and self-contained breathing apparatus.

Unusual Fire and Explosion Hazards

None known.

DEC 07 1995

D.O.T. Not Regulated

15 mg/m³ Nuisance Dust (OSHA)

9896

Effects of Overexposure:
Caustic irritant to eyes, skin, respiratory tract. Do not ingest! Acute: Produces high alkaline solution on contact with skin or mucous membranes, causes skin and eye burn throat irritation. Chronic: Dermatitis. Inhalation of dust will aggravate upper respiratory symptoms.

Emergency and First Aid Procedures

Inhalation: Remove to fresh air, get prompt medical attention. **Eyes:** Immediately flush eyes with running water for 15 minutes, including under eyelids. Get prompt medical attention. **Skin:** Flush with water or vinegar to neutralize alkali effects. Wash with soap and water. **Ingestion:** Dilute by giving 16 glasses of water or milk to drink followed by fruit juices or diluted vinegar. Gargle with vinegar to prevent throat irritation. Consult physician.

SECTION VI
Stability

Stable ☒ Unstable ☐
Conditions to Avoid Will neutralize acid solutions.

Incompatibility (Materials to Avoid) Incompatible with acidic materials, forms salts with nitroparaffins in presence of water and are explosive when dried.

Hazardous Decomposition Products Calcium Oxide

Hazardous Polymerization May ☐ Occur Will Not ☒ Occur Conditions to Avoid N/A

SECTION VII
Spill or Leak Procedures

Steps to be Taken in Case Material is Released or Spilled Sweep up excess of hydrate. Place in dry metal containers. Avoid dusting. Flush are with large quantities of water.

Waste Disposal Method
Chemicals, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog size quantities.
None

SECTION VIII
Respiration Protection

(Specify Type) SPECIAL PROTECTION INFORMATION
NIOSH/MSHA approved nuisance dust respirator.

Ventilation	Local Exhaust	X	Special	
Protective gloves	Mechanical (General)	X	Other	
Other Protective Equipment	Latex Rubber		Eye Protection	Safety Goggles

SECTION IX
Special Precautions

Precautions to be Taken in Handling & Storing
Keep container tightly closed when not in use. Avoid prolonged contact with eyes or skin, inhalation of dust. Use caution in handling alkaline water dispersions of this material.

Other Precautions
Read label on container before using. Do not wear contact lenses when working with chemicals. May have residual calcium carbide present, subject to react with water. See MSDS for calcium carbide.

Approved by Steven C. Grand Effective Date 11/1/94 For laboratory use only. Not for household use. Keep out of reach of children. Information presented herein is furnished without warranty of any kind. End users should use the information only as a supplement to other information gathered by them.