

# MATERIAL SAFETY DATA SHEET

Product Name : 825

Date Issued : January 17, 2012

## SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** 825  
**Formula :** Multi-component mixture

**Chemical Synonym / C# :** c825  
**Chemical Family:** Alkaline blend

**Supplier :** Specialty Chemicals Inc. 208 Widedon Landing Hilton, NY 14468  
**Information Telephone :** (585)752-2320 **Emergency Telephone :** (607)529-3218

## SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	CAS #	% (w/w)	ACGIH TLV (mg/m3)	
			TWA	STEL
Potassium Hydroxide	1310-58-3	< 10.0	-	2 (ceiling)
Sodium Sulfite	7757-83-7	< 10.0	-	-
Morpholine	110-91-8	< 5.0	71	-

Unlisted components are considered non-hazardous as per 29CFR1910.1200g2C. See section 15 for specific state right-to-know information if applicable.

## SECTION 3 : HAZARD IDENTIFICATION

**Emergency Overview :** Corrosive! Causes severe burns on contact. Mists and vapors are irritating to the eyes, respiratory system and skin. Reacts with some metals to liberate hydrogen gas which can form explosive mixtures with air. Read the entire MSDS for a more thorough evaluation of the hazards.

### **POTENTIAL HEALTH EFFECTS:**

**Eye Contact:** Can cause permanent eye injury. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness.

**Skin Contact:** Can cause permanent skin damage. Symptoms may include redness, burning, and swelling of skin, burns, and other skin damage. The feeling of irritation or burning may be delayed following skin contact with 45% or 50% potassium hydroxide solutions. Contact with mist or dust may cause multiple small skin burns. Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

**Inhalation:** Breathing of vapor or mist is possible. Breathing this material may be harmful or fatal. Symptoms may include severe irritation and burns to the nose, throat, and respiratory tract. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See section 2).

**Ingestion:** Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea, vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury.

## SECTION 4 : FIRST AID MEASURES

**Eye Contact:** If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately remove individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.

**Skin Contact:** Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.

**Inhalation:** If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

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**Ingestion:** Seek immediate medical attention if swallowed. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water, and give milk or water to drink. If possible, do not leave individual unattended.

**Note to Physicians:** Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material : skin, lung (for example, asthma-like conditions), liver, kidney.

## SECTION 5 : FIRE FIGHTING MEASURES

**Flash Point :** None    **Method Used:** N/A    **Flammable Limits:** LEL =N/A    **UEL =**N/A

**Extinguishing Media:** Use an extinguishing media appropriate for surrounding fire.

**Fire Fighting Procedures:** Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS (section 8).

**Unusual Fire and Explosion Hazards:** None known.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case material is released or spilled:**

**Small Spill:** Neutralize and mop up solution. Persons not wearing proper personal protective equipment should be excluded from area of spill. Comply with all applicable federal, state, and local regulations.

**Large Spill:** Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from the area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

**Deactivating Chemicals:** Neutralize carefully with weak acid, such as HCl, to a pH of 6 - 9.

## SECTION 7 : HANDLING AND STORAGE

**Handling:** Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

**Storage Requirements:** Store in a dry area. Keep container sealed when not in use. Store away from acids.

## SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

**Eye Protection:** Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

**Skin Protection:** Wear resistant gloves (consult your safety equipment supplier). To prevent skin contact, wear impervious suit or impervious apron.

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

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

**Exposure Guidelines:** See section 2 for ACGIH recommendations for each hazardous ingredient.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

**Appearance / Odor:** Clear, brown, heavy liquid, with a slight ammoniacal odor.

**Water Solubility:** Complete

**pH(1%) :** >12.0

**Specific Gravity:** 1.21

**Boiling Point (°F):** 212+

**Evaporation Rate(water=1):** N/A

**% volatile:** N/A

**Vapor Density(air=1):** N/A

**Vapor Pressure(mmHg):** N/A

## SECTION 10 : STABILITY AND REACTIVITY

**Hazardous Decomposition Products:** No data.

**Chemical Stability:** Stable.

**Incompatibility with other Substances:** Avoid contact with : amines, combustible materials, copper, halogens, metal salts, organic materials, peroxides, reactive metals such as aluminum and magnesium, strong acids, strong alkalies, strong oxidizing agents. **Potassium Hydroxide** can react with chemically reactive metals, such as aluminum, zinc, magnesium, copper, etc., to release hydrogen gas which can form explosive mixtures with air. **Sodium Sulfite** can react with strong oxidizers and cause vigorous exothermic reactions, possibly releasing sulfur dioxide gas (which is toxic and corrosive).

**Hazardous Polymerization:** Will not occur.

## SECTION 11 : TOXICOLOGICAL INFORMATION

**Toxicological Data (as Potassium Hydroxide):** Oral LD50 (rat) : 500 mg/kg

### **Toxicological Data (as Morpholine):**

Oral : LD 50 = 1.05 g/kg (rat) moderately toxic

Inhalation : Believed to be practically non-toxic

Dermal : LD50 = .50 g/kg (rabbit) moderately toxic

Irritation Index, Estimation of Irritation (species) :

Skin : (Draize) 8.00 / 8.0 (rabbit) corrosive

Eyes : (Draize) Believed to be > 80.00 - 110.00 / 110 (rabbit) extremely irritating

Sensitization : Although there has been secondary (anecdotal) reports of the potential for morpholine to be a dermal sensitizer in humans, the weight of the available scientific information indicates that morpholine is not expected to be a dermal sensitizer based on animal and human skin patch testing data.

Other : Prolonged and repeated exposure to morpholine vapors causes ocular, nasal, and skin irritation in laboratory animals. Prolonged and repeated inhalation of morpholine vapors did not cause cancer or organ damage in rats exposed for up to 2 years.

**Carcinogenicity:** This product does not contain any materials considered to be carcinogenous according to OSHA, NTP, IARC, or ACGIH.

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## SECTION 12 : ECOLOGICAL INFORMATION

### Environmental Data (as Potassium Hydroxide) :

**Exotoxicological Information:** Can cause damage to vegetation. Toxicity is primarily associated with pH. Toxic to aquatic life.

**Environmental Effects:** Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

**Persistence and Degradation:** Degrades readily by reacting with natural carbon dioxide in the air. Does not bioaccumulate.

### Environmental Data (as Sodium Sulfite) :

Aquatic Toxicity : 2600 ppm / 24, 48, & 96 hr / mosquito fish / TLm / fresh water

Biological Oxygen Demand (BOD) : 0.12 lb/lb, instantaneous

### Exotoxicity Data (as Morpholine) :

**Aquatic toxicity :** LC50-96hr rating > 100.00 - 1000.00 ppm practically non-toxic.

**Mobility :** Not determined.

**Persistence and Biodegradability :** Expected to slowly biodegrade in the environment.

**Potential to Bioaccumulate :** (log K<sub>ow</sub> = -0.84 (pH 10) to -2.55 (pH 7)).

## SECTION 13 : DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Spent solutions cannot be sent to sewer without neutralization. If waste treatment facility is available, neutralize with diluted HCl to an acceptable pH. If not, contact a permitted waste hauler to dispose of in accordance with local, state, and federal regulations.

**Is the unused product a RCRA hazardous waste (40CFR261.33) if discarded?** No

**If yes, the RCRA ID number is :** N/A

## SECTION 14 : TRANSPORTATION INFORMATION

**Transportation Emergency Telephone Number:** 3E 24 hour number : (866)302-6855\*

\*Please refer to c# referenced in section 1 of this msds.

**DOT Proper Shipping Name:** Potassium Hydroxide, Solution

**DOT Hazard Class / Product Identification Number / Packing Group / DOT Label:**

8 / UN1814 / PGII / Corrosive

## SECTION 15 : REGULATORY INFORMATION

### US FEDERAL REGULATIONS :

**CERCLA RQ - 40 CFR 302.4(a) :**

Component	RQ (lbs)
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POTASSIUM HYDROXIDE	1000
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**SARA 302 Components - 40CFR 355 Appendix A = None.**

**Section 311/312 Hazard Class - 40 CFR 370.2 =**

Immediate, Delayed (as Potassium Hydroxide)

Acute, Chronic, Fire (as Morpholine)

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**SARA Regulations 313 and 40 CFR 372.65:** This product does not contain any chemicals subject to reporting requirements.

**OSHA Process Safety Management - 29 CFR 1910 =** None listed.

**EPA Accidental Release Prevention - 40 CFR 68 =** None listed

## INTERNATIONAL REGULATIONS:

**European Inventory of Existing Commercial Chemical Substances (EINECS) :**  
The components of Morpholine are on the EINECS Inventory.

**CEPA - Domestic Substances List :**  
The components of Morpholine are on the DSL.

## STATE AND LOCAL REGULATIONS:

**Other Regulations / Legislation which apply to this product:**

**(as Potassium Hydroxide) :** Pennsylvania Right-to-Know, New Jersey Right-to-Know.

**(as Morpholine):** Massachusetts (Hazardous Substances Disclosure by Employers), Pennsylvania (Worker and Community Right-to-Know Act), CT, FL, IL, NJ, RI State Right-to-Know Regulations.

**California Safe Drinking Water Act (Prop. 65) Listing :** None listed.

## SECTION 16 : OTHER INFORMATION

**NFPA Rating :**       **HEALTH: 3**       **FLAMMABILITY: 0**       **REACTIVITY: 1**  
NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

*Information and data compiled to compose this MSDS is correct to the best of our knowledge as of the printed date, and is offered solely for your consideration, investigation, and verification.*