

MATERIAL SAFETY DATA SHEET



CALTECH TECH SERVICES
150-12811 CLARKE PLACE
RICHMOND, B.C. V6V 2H9

Phone: (780) 440-1911
In Case of Emergency Only:
Phone CANUTEC: (613) 996-6666

Date completed: Nov. 1, 2005

PRODUCT NAME: E-20 LIQUID MACHINE DISHWASH NON-CHLORINATED CODE: J430

OTHER NAME: Calwash Liquid

DISTRIBUTED BY: CALTECH TECH SERVICES

WHMIS CLASSIFICATION: E

TDG CLASSIFICATION: POTASSIUM HYDROXIDE, SOLUTION; Class 8; UN 1814; PG II

HAZARDOUS INGREDIENTS	%WT/WT	CAS NO.	TOXICITY DATA (LD₅₀ & LC₅₀)
Potassium Hydroxide (45% Sol.)	15-40%	1310-58-3	LD ₅₀ Oral (rat) 365 mg/kg ACGIH TLV - 2 mg/m ³

PHYSICAL DATA FOR PRODUCT

Physical State: Liquid Sp. Gravity: 1.257 pH: 14 1% sol. - 12.2
Boiling Point: Not Avail. Vapour Pressure: 2 mm Hg at 20°C
Vapour Density: N/A Evaporation Rate: Not Avail.
Freezing Point: Not Avail.
Solubility in Water: 100 %
Appearance & Odour: Clear, red coloured liquid.

FIRE AND EXPLOSION DATA FOR PRODUCT

Flash Point (Test Method): N/A
Flammable Limits in Air, % by vol. Non-flammable Lower: N/A Upper: N/A
Fire Extinguishing Substances: (X) Water Fog () Foam () CO₂ () Dry Chem () Other:

Hazardous Combustion Products: See Hazardous Decomposition Products.

Special Firefighting Procedures: As for surrounding fire. Wear full protective clothing.

REACTIVITY DATA FOR PRODUCT

Incompatibility: () Water (X) Oxidizing Material (X) Acid () Base
(X) Other: Chlorinated hydrocarbons, ammonia, aluminum, tin, lead and zinc.

Hazardous Decomposition Products: Hydrogen (from contact with aluminum and other metals mentioned above), potassium oxides on combustion.

Chemical Stability: Stable under normal conditions.

*N/A - Not applicable.

Product Name: **E-20 LIQUID MACHINE DISHWASH NON-CHLORINATED**

HEALTH HAZARD INFORMATION FOR PRODUCT

EMERGENCY and FIRST AID PROCEDURES

Inhalation: Move to fresh air and get medical attention.

Ingestion: Get medical help immediately. Rinse mouth well with water and give patient large quantities of water or milk to drink to dilute the chemical. Do not induce vomiting.

Eyes: Flush with plenty of water for at least 20 minutes. Get medical attention.

Skin: Remove contaminated clothing immediately and flush with water for at least 15 minutes. Get medical help. No oil or ointment should be applied.

EFFECTS OF OVEREXPOSURE (Acute and Chronic)

Inhalation: Mist may cause irritation of respiratory tract, inflammation of the lungs.

Ingestion: Burning in mouth and esophagus; nausea, vomiting, abdominal pain and diarrhea. Perforation of gastrointestinal tract may occur. May be fatal.

Eyes: Causes severe irritation to the mucous membranes of the eyes. May cause ulceration of the eye. Glaucoma, cataracts and permanent blindness may occur.

Skin: Severe irritation and burns to the skin. Damage may be delayed.

PREVENTIVE MEASURES

Steps to be taken upon release or spillage (including neutralizing):

With large spills, dyke for later disposal. Neutralize with diluted acid - like hydrochloric or sulfuric acid. Minor spills can be neutralized and flushed with plenty of water.

Waste disposal method:

Waste product should not be discharged into sewers or streams. It should be first neutralized with dilute acid and then discharged according to federal, local and provincial regulations.

Handling and Storage Requirements:

Store in cool area above freezing point of product. When diluting always add product slowly to water to prevent boiling and splattering.

Ventilation Requirements (Local or General):

Use with adequate ventilation.

Respiratory Protection:

Not normally necessary.

Eye Protection:

Chemical Workers goggles.

Other Protection:

Rubber, vinyl or neoprene gloves and coveralls should be worn to prevent contact with skin and clothing.