

# MATERIAL SAFETY DATA SHEET

(Prepared According to 29 CFR 1910.1200)

Date Prepared: 01/09/2009

Code: 1451

## SECTION 1 - PRODUCT IDENTIFICATION

Distributor: <b>PB GAST &amp; SONS COMPANY</b>	Emergency Phone: 616-245-0574
Address: 355 Cottage Grove SE, Grand Rapids, MI 49507	Prepared By: DR
Trade Name: <b>FORMULA FOUR FINISHED CONCENTRATE</b>	Product Type: Steam & Pressure Cleaner

## SECTION 2 - INGREDIENTS

CHEMICAL NAME/COMMON NAME	CAS NO.	WT. %(opt)	TLV(Source)	TITLE III, SECT. 313
Potassium Hydroxide	1310-58-3	<10%	2mg/M3 (CEILING)	
Dipotassium E.D.T.A.	2001-94-7	<10%	2mg/M3(as KOH)	
Nonionic Surfactant	9016-45-9	<10%	None Established	

## SECTION 3 - PHYSICAL DATA

Boiling point (°F.) 212°F	Specific Gravity (H2O=1.0) 1.0 ± 0.005	pH 13.2 ± 0.5
Vapor Pressure (mm Hg) Not Determined	Vapor Density (Air=1) Not Determined	
Solubility in water <input checked="" type="checkbox"/> Complete <input type="checkbox"/> Insoluble <input type="checkbox"/> Emulsifiable (or Dispersible) <input type="checkbox"/> Slight (or Partial)		
Evaporation Rate (vs. H2O) <input type="checkbox"/> Faster <input type="checkbox"/> Slower <input checked="" type="checkbox"/> About the Same	Appearance and Odor Clear red-colored liquid with no distinct odor.	

## SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (T.C.C.) °F. <input checked="" type="checkbox"/> None to Boiling	Flammable Limits N.A. Upper Lower
Extinguishing Media Product is noncombustible. Water Spray(Fog), Dry Chemical; CO2; or Foam may be used where product is stored.	
Special Firefighting Procedures Do not enter confined fire-spaces without protective clothing and self-contained air supply.	
Unusual Fire and Explosion Hazards None	

## SECTION 5 - REACTIVITY DATA

Stability Stable	Incompatibility Strong Acids, Strong Oxidizers.
Hazardous Decomposition Products Burning may produce oxides of carbon and other substances.	

## SECTION 6 - HEALTH HAZARD DATA

Primary Routes of Exposure <input checked="" type="checkbox"/> Eye <input checked="" type="checkbox"/> Skin <input checked="" type="checkbox"/> Oral <input type="checkbox"/> Inhalation <input type="checkbox"/> Other	
Signs and Symptoms Of Overexposure (Acute) Corrosive material. Will cause burns of skin and eyes with prolonged contact. Corneal damage likely if contact with eyes is prolonged. Generated mists may be severely irritating and cause damage to respiratory tract if inhaled. If swallowed will cause irritation and burns of mucous membranes as well as nausea, vomiting and abdominal pain.	
Signs and Symptoms of Overexposure (Chronic) Chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant	
Medical Conditions Aggravated by Overexposure An existing dermatitis.	
Carcinogen or Suspect Carcinogen Ingredients <input type="checkbox"/> NTP <input type="checkbox"/> IARC <input type="checkbox"/> OSHA <input checked="" type="checkbox"/> NONE	

## SECTION 7 - EMERGENCY AND FIRST AID PROCEDURES

Eyes Flush eyes with water for at least 15 minutes and call a physician immediately.
Skin Wash affected areas with large amounts of soap and water. If irritation persists call a physician.
Ingestion Do NOT induce vomiting. Dilute by drinking water. Call a physician immediately.
Inhalation Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.

## SECTION 8 - SPECIAL PROTECTION INFORMATION

Respiratory Protection Not required under normal use conditions. Avoid misting conditions unless protected.
Ventilation Requirements Normal <input type="checkbox"/> Local Exhaust <input type="checkbox"/> Mechanical <input type="checkbox"/> Other <input type="checkbox"/> Eye Protection Safety Glasses/Goggles
Protective Gloves Rubber/PVC <input type="checkbox"/> Other Protective Clothing Impervious protective clothing, safety shoes, safety shower when & where appropriate to

## SECTION 9 - SPILL OR LEAK PROCEDURES

Steps To Be Taken If Released or Spilled Do not touch or walk through spilled material. Stop leak if you can do it without risk. Take up small spills with sand or other inert absorbent material and place into containers for later disposal. Dike ahead of large spill for later disposal.
Waste Disposal Methods Dispose of in an approved waste facility according to Federal, State and local regulations.

## SECTION 10 - STORAGE AND HANDLING INFORMATION

Precautions to be Taken In Handling and Storage WARNING: Corrosive liquid. Handle all containers carefully. Keep container closed when not in use. Wash thoroughly after handling. Remove contaminated clothing and launder before reuse. Neutralized material is not RCRA hazardous. Do not get in eyes, on skin or clothing.
--

DOT Class Corrosive liquid, basic, inorganic, n.o.s. (contains Potassium Hydroxide), 8, UN3266, PGII.

The health hazards given on this Material Safety Data Sheet apply to this product in its concentrated form (as supplied) and may differ significantly at use dilution. The signs and symptoms of overexposure apply only to negligence in handling or misuse of the concentrated product and not to the routine exposure of the diluted product under conditions of ordinary use.

HMIS HAZARD RATING

HEALTH	3
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	X

0 - LEAST  
1 - SLIGHT  
2 - MODERATE  
3 - HIGH  
4 - EXTREME