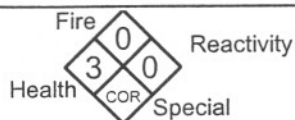


HAZARD RATING

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



MATERIAL SAFETY DATA SHEET

(Prepared according to 29 CFR 1910. 1200)

Date Prepared: 3-10-05

SECTION 1 - PRODUCT IDENTIFICATION

Company Name Cardinal Chemical Systems, Inc. Emergency Telephone No. 314-757-6182
Address P.O. Box 45007, St. Louis, MO 63145-5007 Information Telephone No. 314-757-6182
Product Name / ID# Hard Break (300911) Product Type Laundry Break ☒ Proprietary Product

SECTION 2 - HAZARDOUS INGREDIENTS

Chemical Name/Common Name	Cas No.	Percent (optional)	TLV (Source)
Sodium Hydroxide (RQ)	1310-73-2	< 20%	C2mg /m3 (ACGIH)

☐ * Substances ☒ Contains no substances - subject to the reporting requirements of SARA 313 and 40 CFR Part 372.

SECTION 3 - PHYSICAL DATA

Boiling Point (°F) 212°F Specific Gravity (H₂O=1.0) 1.19 ± 0.005 pH 13.5 ± 0.5 % VOC (ww) 0%
Solubility In Water ☒ Complete ☐ Insoluble ☐ Emulsifiable or (Dispersible) ☐ Slight (or Partial)
Evaporation Rate (vs H₂O) ☐ Faster ☐ Slower ☒ About the Same Vapor Pressure NE Vapor Density NE
Appearance and Odor Clear, thin liquid, neutral odor.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (T.C.C.) ☒ None to boiling Flammable Limits Upper NA Lower NA
Extinguishing Media NA
Special Fire Fighting Procedures NA
Unusual Fire Explosion Hazards NA

SECTION 5 - REACTIVE DATA

Stability Stable Incompatibility Acids; Aluminum, Tin, Zinc; Nitro Carbons, Halo Carbons.
Hazardous Decomposition Products Hydrogen gas by reaction with Aluminum, Tin or Zinc metals.

SECTION 6 - HEALTH HAZARDS

Threshold Limit Value Product See Section 2 for Ingredients TLV ☒ None Established ☐ Not Applicable Primary routes of Exposure ☒ Eyes ☒ Skin ☒ Oral ☒ Inhalation
Signs Symptoms of Over-exposure (Acute) Corrosive to all human tissue. Can cause burns. Ingestion may cause violent pain in throat and damage gastro-respiratory tract. Inhalation of mist may cause damage to upper respiratory tract.
Signs Symptoms of Over-exposure (Chronic) Unknown
Medical Conditions Aggravated by Over-exposure Unknown
Carcinogen/Suspected Carcinogen Ingredients: ☐ NTP ☐ IARC ☐ OSHA ☒ None

SECTION 7 - FIRST AID PROCEDURES - (If any Condition persists - Consult a physician.)

Eyes Flush with water for 15 minutes. See a physician immediately.
Skin Flush with water for 15 minutes. Remove contaminated clothing. If irritation persists, call a physician.
Ingestion Give quantities of water to dilute contents in stomach. Do NOT induce vomiting. See a physician.
Inhalation Remove to fresh air.

SECTION 8 - SPECIAL PROTECTION INFORMATION

Respiratory Protection If mist, NIOSH approved respirator.
Ventilation requirements ☒ Local Exhaust ☐ Mechanical As needed to keep below any listed TLV and/or for general good ventilation.
Protective Gloves Rubber gloves Eye Protection Safety goggles
Other Protective Clothing Chemical Apron, Rubber Boots.

SECTION 9 - SPILL OR LEAK PROCEDURES

Steps to be Taken if Released or Spilled Contain spill. Neutralize with mild acid solution. Flush residue with large volumes of water.

Waste Disposal Methods Flush into sanitary sewer system. Check with federal, local or state regulations.

SECTION 10 - STORAGE AND HANDLING INFORMATION

Precautions to be Taken in handling and Storage Avoid direct contact. Wash thoroughly after handling. Store away from acids.
Keep Out Of Reach Of Children