

MATERIAL SAFETY DATA SHEET

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GENERAL INFORMATION NUMBER: 1-800-653-9795

REVISION DATE: September 23, 2002
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I - Product Identification

Machine Dish Detergent (Liquid)

PRODUCT CODE: 0224

CHEMICAL FORMULATION: Water based alkaline cleaner.

NFPA HAZARD IDENTIFICATION SYSTEM: HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

HAZARD RATING: 4 - Extreme; 3 - High; 2 - Moderate; 1 - Slight; 0 - Insignificant

II - Hazardous Ingredients

Values reported as TWA unless noted.

SUBSTANCE	APPROX %	OSHA PEL	ACGIH TLV	EPA 40 CFR:			CAS #
				302	355	372	
Potassium hydroxide	15.0-20.0	2 mg/m ³ C	2 mg/m ³ C	Y	N	N	1310-58-3
Sodium hypochlorite	5.00-15.0	N/E	N/E	N	N	N	781-52-9
Sodium tripolyphosphate	10.0-20.0	N/E	N/E	N	N	N	7758-29-4

Key: PEL: Permissible Exposure Limit TLV: Threshold Limit Value C: Ceiling level STEL: Short Term Exposure Limit
N/A: Not Applicable N/D: Not Determined N/E: Not Established Y: Yes N: No
302: CERCLA List of Hazardous Substances and Reportable Quantities (40 CFR 302.4).
355: SARA TITLE III / List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 355).
372: SARA TITLE III / List of Toxic Chemicals subject to Release Reporting (Community Right to Know) (40 CFR 372).

III - Physical Data

BOILING POINT (°F): N/D

SPECIFIC GRAVITY (WATER = 1): 1.292-1.341

VAPOR PRESSURE (mm Hg): N/D

VOC CONTENT (% by weight): 0

VAPOR DENSITY (AIR = 1): N/D

EVAPORATION RATE (WATER = 1): ~ 1.0

SOLUBILITY IN WATER: Soluble

pH: 13.5-14.0

APPEARANCE AND ODOR: Clear to slight hazy, light yellow liquid; distinct chlorine odor

IV - Fire and Explosion Hazard Data

FLASH POINT (°F): None

(TEST METHOD): Closed cup

FLAMMABLE LIMITS IN AIR (VOLUME %)

UPPER: N/A

LOWER: N/A

EXTINGUISHING MEDIA: Water, foam, carbon dioxide, dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: Cool drums in vicinity of fire with water fog. Fire fighters should wear full protective gear including self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARD: Fire may produce toxic fumes.

V - Reactivity Data

STABILITY: Stable**INCOMPATIBILITY:** Acids and reducing acids.**CONDITIONS TO AVOID:** None**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal decomposition may produce oxides of carbon.**HAZARDOUS POLYMERIZATION:** Will not occur.**CONDITIONS TO AVOID:** None

VI - Health Hazard Data

ROUTES OF ENTRY **INHALATION:** X **EYE CONTACT:** X **SKIN CONTACT:** X **INGESTION:** X**INGREDIENTS THAT ARE CONSIDERED BY OSHA, NTP, IARC TO BE SUSPECTED HUMAN CARCINOGENS:** None.**EFFECTS OF OVEREXPOSURE****IF IN EYES:** Severe irritation, destruction of tissue.**IF ON SKIN:** Severe irritation, burns, dermatitis, destruction of tissue.**IF SWALLOWED:** DANGER-Harmful or fatal if swallowed. Severe burns, destruction of tissue.**IF INHALED:** Irritation and burns to respiratory tract.**EMERGENCY AND FIRST AID PROCEDURES****IF IN EYES:** Flush eyes and under eyelids with plenty of cool water for at least 15 minutes. Obtain immediate medical attention, and continue flushing until assistance arrives.**IF ON SKIN:** Remove contaminated clothing and launder separately before re-use. Flush with plenty of cool water and vinegar for at least 15 minutes. If irritation persists, obtain medical attention.**IF SWALLOWED:** Contact physician or poison control center immediately. Give person 1 to 2 glasses of water, followed by citrus fruit juice. Never give anything by mouth to an unconscious person.**IF INHALED:** Remove person to fresh air. If breathing has stopped, administer artificial respiration. If breathing is difficult, give oxygen.

VII - Spill or Leak Protection

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spill and ventilate area. Soak up spilled material with inert absorbent material and place in a closed container for disposal. Flush area with large amounts of water.**WASTE DISPOSAL METHOD:** Consult local environmental authorities.

VIII - Special Protection Information

RESPIRATORY PROTECTION: Use with adequate ventilation. If recommended Exposure Limits are exceeded wear a NIOSH approved respirator, following manufacturer's recommendations.**VENTILATION****LOCAL:** Recommended**MECHANICAL:** Not required**PROTECTIVE GLOVES:** Chemical resistant.**EYE PROTECTION:** Chemical goggles and/or face shield.**OTHER PROTECTIVE EQUIPMENT:** Protective clothing, emergency shower and eye wash station.**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Store in a cool, dry place away from acids. Never add water to this product, always add this product to water. Do not mix with any other cleaning chemical. Rinse container thoroughly before discarding. Keep container tightly closed when not in use.**OTHER PRECAUTIONS:** Keep out of reach of children.

IX - Transportation Information (ground transportation only)

DOT PROPER SHIPPING NAME: Compounds, cleaning liquid (sodium hypochlorite, Potassium hydroxide)**DOT CLASS:** 8**DOT ID NUMBER:** NA1760**DOT PACKING GROUP:** II

The shipping information listed above applies only to non-bulk (<119 gallons) containers of this product. This product may have more than one proper shipping name depending on packaging, product properties, & mode of shipment. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may apply.

REVISION DATE: August 21, 2001**Prepared by:** PMR**DATE OF ISSUE:** August 21, 2001

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This concentrated dish detergent is specially designed for institutional dish washing machines. It contains a powerful blend of cleaning agents to cut through heavy food build-up, dried-on deposits, grease and oil. 1% chlorine cleans tough protein soils and removes stubborn stains, too. Special sequestering agents assure thorough cleaning of glass, porcelain, plastic, earthenware and metal even in hard water. This low pollution formula contains less than 3% phosphorus and biodegradable surfactants.

DIRECTIONS: Rack dishes and pre-rinse. Use ½ to 1 ounce of detergent concentrate per gallon of water in the wash tank. Adjust the detergent feed pump to maintain proper detergent concentration. Wash water should be at least 140°F. Hard water may require additional detergent. Rinse with hot water (180°F or above). This detergent is not intended for hand dishwashing use.

MACHINE DISH DETERGENT

**HEAVY DUTY
LIQUID DETERGENT
WITH 1% CHLORINE**

LOW FOAM — BIODEGRADABLE

**DANGER: CAUSES SEVERE BURNS.
HARMFUL OR FATAL IF SWALLOWED.**

See side panel for further cautions
and first aid instructions.
KEEP OUT OF REACH OF CHILDREN

Sold by:

**DANGER: CAUSES SEVERE BURNS.
HARMFUL OR FATAL IF SWALLOWED.**
Avoid contact with eyes, and mucous membranes, or prolonged contact with skin.

FIRST AID:
External: Remove contaminated clothing and launder before reuse. Flush skin with water then wash with vinegar.
Internal: Drink large quantities of water followed with citrus fruit juice. Call a physician immediately.

Eyes: Flush eyes and under eyelids with water for 15 minutes, and obtain immediate medical attention.
KEEP OUT OF REACH OF CHILDREN

This product contains	CAS Number
Potassium hydroxide	1310-58-3
Potassium silicate	1312-76-1
Sodium tripolyphosphate	7758-29-4
Sodium hypochlorite	7681-52-9
Organic phosphate ester surfactant	7664-38-2

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