

# MATERIAL SAFETY DATA SHEET

Total Solutions  
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GENERAL INFORMATION NUMBER: (414) 354-6417  
CHEMTREC: (800) 424-9300

REVISION DATE: January 31, 2007  
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## I - Product Identification

### Machine Dish Detergent

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 <sup>3</sup> C	2 mg/m <sup>3</sup> C	Y	N	N	1310-58-3
Sodium hypochlorite	5.00-15.0	N/E	N/E	N	N	N	7681-52-9
Sodium tripolyphosphate	10.0-20.0	N/E	N/E	Y	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): 1.29-1.34

VAPOR PRESSURE (mm Hg): N/D

VOC CONTENT (% by weight): 0

VAPOR DENSITY (AIR = 1): N/D

EVAPORATION RATE (WATER = 1): N/D

SOLUBILITY IN WATER: Soluble

pH: 12.5-14.0

APPEARANCE AND ODOR: 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:** Corrosive-Severe destruction of tissue, possibly resulting in blindness.**IF ON SKIN:** Corrosive - Severe irritation, burns, dermatitis, destruction of tissue.**IF SWALLOWED:** DANGER-Harmful or fatal if swallowed. Severe burns, destruction of tissue.**IF INHALED:** Irritation to the respiratory tract and lung tissue**EMERGENCY AND FIRST AID PROCEDURES****IF IN EYES:** Flush eyes and under eyelids with plenty of cool water for at least 15 minutes. Call physician immediately and continue flushing until medical attention is obtained.**IF ON SKIN:** Flush with plenty of cool water for at least 15 minutes while removing contaminated clothing. Obtain medical attention.

Launder clothing separately before re-use.

**IF SWALLOWED:** Contact physician or poison control center immediately. Rinse mouth with water. 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. Call physician if irritation persists.**VII - Spill or Leak Protection****STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:** Ventilate area and contain spill. Soak up spilled material with inert absorbent material and place in a closed container for disposal. Flush residue away 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:** Safety glasses 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 ID #:** NA1760 **DOT PROPER SHIPPING NAME:** Compounds, cleaning liquid (Sodium hypochlorite, Potassium hydroxide)**DOT CLASS:** 8 **DOT PACKING GROUP:** II

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

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