



Power Plus Detergent

Machine Detergent

DESCRIPTION

Power Plus Detergent is a highly concentrated, chlorinated liquid detergent specially formulated for automatic machine washing of cutlery, dishes, glasses, pots and pans. This heavy-duty alkaline formula removes food particulate and stains, leaving behind a clean shine.

As a dishwashing detergent in soft to medium water hardness, *Power Plus Detergent* has no equal and provides exceptional results at a very realistic cost.

SPECIAL INFORMATION

Do not mix *Power Plus Detergent* with acid products (a toxic chlorine gas could result). This product should not be used for manual cleaning.

DIRECTIONS

Dishwashing:

Power Plus Detergent is dispensed directly from the shipping container into the machine by the M-chem automatic detergent controller. Best results are achieved with the water temperature between 60 °C - 70 °C (140 °F - 160 °F).

Please consult your M-chem representative for specific feeding recommendations to meet your particular needs.

PHYSICAL DATA

| | |
|------------|----------------|
| Appearance | Clear liquid |
| Color | Pale yellow |
| Foam | None |
| Odor | Mild, chlorine |
| pH | 13.0 - 14.0 |
| Chlorine % | 3.5 minimum |

MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT/MANUFACTURER'S IDENTITY

| Product Name: POWER PLUS DETERGENT Product Use: <i>Chlorinated dishmachine detergent.</i> M-chem Technologies Inc. 1607 Derwent Way Delta, BC V3M 6K8, Canada Phone: (604) 526-5655 | WHMIS CODE: E Proper Shipping Name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, sodium hypochlorite) Hazard Class: Class 8, P.G. II UN Number: UN 3266 | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="2">HMIS</th> </tr> </thead> <tbody> <tr> <td style="width: 20px;">3</td> <td>Health</td> </tr> <tr> <td>0</td> <td>Flammability</td> </tr> <tr> <td>0</td> <td>Reactivity</td> </tr> <tr> <td>C</td> <td>Personal</td> </tr> </tbody> </table> <p>A=Goggles, B=Goggles & Gloves C=Goggles, Gloves and Apron</p> | HMIS | | 3 | Health | 0 | Flammability | 0 | Reactivity | C | Personal |
|---|--|--|------|--|---|--------|---|--------------|---|------------|---|----------|
| HMIS | | | | | | | | | | | | |
| 3 | Health | | | | | | | | | | | |
| 0 | Flammability | | | | | | | | | | | |
| 0 | Reactivity | | | | | | | | | | | |
| C | Personal | | | | | | | | | | | |
| EMERGENCY PHONE Canada: Canutec 613-996-6666 U.S.A.: Chemtrec 800-424-9300 | | | | | | | | | | | | |
| ABBREVIATION KEY: N/A=Not Applicable, N/E=Not Established, N/D=Not Determined, > =Greater Than | | | | | | | | | | | | |

SECTION 2 – HAZARDOUS INGREDIENTS INFORMATION

| INGREDIENT | CAS NO. | RANGE % | PEL | TLV |
|-----------------------------------|-----------|-------------|--------|---------|
| SODIUM HYPOCHLORITE | 7681-52-9 | 1.0 - 5.0 | N/A | N/E |
| LD50 (oral rat) 8910 mg/kg | | | | |
| LD50 (dermal) N/A | | | | |
| LC50 (Inhal., rat, 4h) 5250 mg/m3 | | | | |
| SODIUM HYDROXIDE | 1310-73-2 | 15.0 - 20.0 | 2 mg/m | 2 mg/m3 |
| LD50 (oral rat) 340 mg/kg | | | | |
| LD50 (dermal) 1350 mg/kg | | | | |
| LC50 No Data | | | | |

SECTION 3 – PHYSICAL DATA

| | | | |
|---|------------------------------|-------------------------------------|--------------------------------------|
| Color and Odor: Clear yellow, chlorine odor. | Boiling Point: N/D | Vapor Pressure (mm HG): N/A | pH: 13.0 – 14.0 |
| Physical State: Liquid. | Melting Point: N/A | Vapor Density: N/D | Specific Gravity: 1.28 @ 20°C |
| Coef. Water/Oil Dist: Greater than 1.0 | Evaporation Rate: N/D | Solubility in Water: Soluble | Odor Threshold: No Data |

SECTION 4 – FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method: None combustible. **Sensitivity to Mechanical Impact:** None. **Conditions of Flammability:** None.
Flammable Limits: None known. **Sensitivity to Static Discharge:** None. **Auto ignition Temperature:** None known.
Extinguishing Media: Product is not flammable. Use extinguishing media suitable for surrounding fires.
Unusual Fire and Explosion Hazards: Protective clothing for skin and eye protection to prevent highly alkaline material. Closed containers expose to heat may explode. Spilled material may cause floor slippery.
Hazardous Combustion Products: Thermal decomposition products are toxic and may include oxide of chlorine and sodium.
Special Fire Fighting: Wear full protective equipment, including a NIOSH/MSHA approved, self-contained breathing apparatus for fire fighting situations. Use water spray to cool all nearby fire exposed surfaces.

SECTION 5 – REACTIVITY DATA

Chemical Stability: Unstable under normal storage conditions, Sodium Hypochlorite solution decompose slowly. Decomposition accelerated by heat (above 40 °C) and light.
Hazardous Polymerization: Will not Occur.
Incompatibility (material to avoid): Strong acids, reducing agents, ammonia solutions, organic compounds, heavy metals (i.e. iron, lead, tin, etc.) and their salts.
Hazardous Decomposition Products: Thermal decomposition products are toxic and may include oxide of chlorine and sodium.

SECTION 6 – TOXICOLOGICAL DATA

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| Exposure Limits: See Section 2 under Hazardous Ingredient. Irritancy of Product: Corrosive to skin, eyes and respiratory system. Sensitization: None known. Name of Toxicological Synergistic Product: None known. Teratogenicity: None known. Effects of Chronic Exposure: Prolonged or repeated exposure may cause productive cough, running nose, redness, pain and drying and cracking of skin. Effects of Acute Exposure to Product: Product exposure may cause irritation of the nose, throat, and respiratory trace. | Routes of Entry: Skin, eyes, ingestion, inhalation. Carcinogenicity: Non hazardous by WHMIS criteria. Mutagenicity: Result of tests in animal has been negative. Reproductive Toxicity: None known. |
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SECTION 7 – PREVENTATIVE AND CONTROL MEASURES

Respiratory Protection: If product is misted or sprayed, or used in a confined area, use a NIOSH/MSHA approved dust/mist respirator.
Ventilation: Good general ventilation or local exhaust ventilation for spraying and misting in confined areas.
Protective Gloves: Natural rubber, nitrile or PVC gloves.
Eye Protection: Full face-shield and chemical safety goggles when there is potential for contact.
Protective Clothing and Equipment: Long sleeve coveralls. Eye wash recommended in the immediate work area.
Storage and Handling Procedures: Use good industrial hygiene. Do not get in eyes. Avoid contact with skin, and clothing. Avoid breathing sprays or mists. Store in a cool, dry place away from incompatibles. Vent caps may be required to prevent a build-up of pressure that could cause containers to burst. Do not mix with any other chemicals. Store below 29 °C (84°F). Keep from freezing.
Disposal Procedures for Spills or Leaks: Wear protective equipment. Carefully neutralize by adding 35% hydrogen peroxide at one pint per pound of hypochlorite. Spilled material may cause floor and contact surface slippery. Collect product for recovery or disposal. Contain discharge by constructing dykes or absorbent if release to land or storm water runoff.
Waste Disposal Method: Reuse if possible, or otherwise dispose recovered material in accordance with all local, Provincial or Federal Regulations.
Special Shipping Information: Store at temperatures below 29°C (84°F) and keep from freezing.

SECTION 8 – EMERGENCY FIRST AID PROCEDURES

First Aid:
 If swallowed, give plenty of clean water to drink to dilute product. Do not induce vomiting. Call a Physician. In case of contact with eyes, flush with clean water for 15 minutes. Get medical attention. For contact with skin, wash with clean water and rinse well. If irritation occurs or persists, get medical attention.

PREPARATION DATA