better products for a cleaner environment

POWER BAC
Antibacterial Toilet Bowl Cleaner

Product Description
POWER BAC is formulated with mild mineral acids for maximum stain removal, and thickened to reduce wastage for effective and economical cleaning. It has a broad-spectrum disinfectant that neutralizes most bacteria. ***POWER BAC*** also has a pleasant masking perfume, making it the ideal product for cleaning, disinfecting and deodorizing toilet bowls and other septic areas.

Areas of Use
POWER BAC can be used with confidence to clean toilet bowls, urinals, gutters and other porcelain septic surfaces.

Special Features
- Combines powerful, acidic cleaning agents and surfactants to remove stubborn stains
- Specially thickened for “clinging” effect to clean vertical surfaces
- Strong disinfectant kills common bacteria found in toilets, yet does not harm septic tanks
- Leaves a fresh, lingering scent after use

Directions for Use
- Flush toilet bowl.
- Pour some ***POWER BAC*** into bowl, and on surfaces to be cleaned. Allow product to react for 5-10 mins. Then wet toilet brush with bowl water and agitate areas to be cleaned.
- Wash the brush in the bowl and flush again. Rinse area where flush water doesn't reach.
- Follow same procedure of flush, apply chemical, brush / scrub and flush again for cleaning urinal slab, gutter, floors and walls.
- For removing stubborn stains, pour ***POWER BAC*** onto stain and scrub vigorously with black nylon pad.

Precautions
This product is mildly acidic. Prevent excessive skin contact and excessive inhalation by wearing rubber gloves and ensuring adequate ventilation. Avoid ingestion and eye contact. If product enters eyes, flush thoroughly with cold water and seek medical help as soon as possible. If ingested, consume large amounts of cold water to dilute and seek medical help. Avoid using on plastic, formica, marble or other surfaces susceptible to acids.

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MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name:	**POWER BAC**	**Distributor:**	KLENCO (SINGAPORE) PTE LTD
Description:	Antibacterial Toilet Bowl Cleaner	**Address:**	18 Gul Crescent, Singapore 629527
Date of MSDS:	August 2004	**Tel:**	(65) 6862 3388

SECTION 2 - INFORMATION ON INGREDIENTS

Chemical Name/Common Name	%	TLV	Chemical Name/Common Name	%	TLV
Phosphoric acid	< 2.0	1.0mg/m^3	Hydrochloric acid	< 9.0	5 ppm
Non-hazardous ingredients	< 95				

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: Corrosive material and will cause burns of skin and eyes on contact. Ingestion will cause burns of mucous membrane and internal damage, possibly death. Corneal damage likely if contact with eyes is prolonged. Inhalation of fumes may cause irritation to upper respiratory tract and lung. Do not swallow. See sections 3, 5 and 6.

Primary Routes of Exposure: Skin and eyes

Eye Contact: Will cause damage to corneal on prolong contact.

Skin Contact: Incidental contact will cause burns and intense irritation.

Inhalation: May cause irritation to upper respiratory tract and lung.

Ingestion: Will cause burns to mucous membrane and internal damage and possibly death.

Target Organs/Chronic Effects: None known.

Conditions Aggravated By Exposure: Exposure to this product is not expected to contribute, worsen or aggravate any pre-existing medical conditions.

SECTION 4 – FIRST AID MEASURES

Eye Contact: Flush with cool water for at least 15 minutes. Then consult a physician immediately.

Skin: Wash with large amounts of soap and water. If irritation persists, consult a physician.

Ingestion: Induce vomiting. Dilute by drinking water. Call a physician immediately.

Inhalation: Move to area of fresh air. If breathing has stopped, artificial respiration should be started. Oxygen may be administered if available. Call a physician. Never give anything by mouth to an unconscious person.

Notes to Physicians: Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

SECTION 5 – FIRE FIGHTING METHODS

Flash Point (T.C.C.): None to boiling **Flammable Limits -** **Upper:** NA **Lower:** NA

Extinguishing Media: Water, dry chemical, fog and foam.

Special Fire Fighting Procedure: Fire fighters may be exposed to the products of combustion should wear a self-contained breathing apparatus with full protective equipment

Unusual Fire/Explosion Hazards: None

Hazardous Decomposition Products: Burning can produce carbon dioxide, carbon monoxide and traces phosphoric oxides.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Evacuation: May be required if handling large amounts of release.

Containment: Safely stop discharge. Contain material, as necessary, with dike or barrier. Stop material from contaminating soil or from entering sewers or bodies of water. Provide optimum ventilation.

Collection And Disposal: Stop discharge, if safe to do so. Use proper protective equipment. Cover spills with absorbent clay, sawdust, inert material, soda ash, slaked lime and place in closed chemical waste containers. Dispose according to applicable local, state and federal regulations.

SECTION 7 - HANDLING AND STORAGE

Storage Conditions: This product is a corrosive liquid. Store in cool, dry, well ventilated area at room temperature. Keep away from strong alkalis and oxidizing agents especially chlorine releasing agents.

Transfer: Handle all containers carefully. Do not throw or roll on the ground to prevent damage to containers. No other special precautions are needed for this product as it is a mixture. Follow good manufacturing and handling practices.

Personal Hygiene: Wash thoroughly after handling, especially before eating and drinking. Wash contaminated goggles, face-shield and gloves. Launder contaminated clothing before re-use.

Empty Container Precautions: Do not re-use empty container for food, clothing or products for human or animal consumption or where skin contact can occur.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:
ACGIH - TLV: Provide suitable personal protective equipment and/or ventilation to maintain exposure below TLV levels.

Engineering Controls/Ventilation: Local exhaust ventilation is recommended when vapours, mist, or dusts can be released.

Respiratory Protection: Normally not required.

Eye Protection: Safety glasses / goggles.

Hand Protection: Rubber / PVC gloves.

Other Protective Clothing: Normal work clothing covering arms and legs.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odour: Pale blue liquid with characteristic odour.

Solubility in water: Complete.

Boiling Point: $100\ ^{0}$ C

Specific Gravity: 1.050 +/- 0.02 g/cm^3

PH: 1.0 +/- 0.5

Vapour Pressure: Not determined

Vapour Density: Not determined

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions of use.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Not applicable.

Incompatibility With Other Materials: Strong Alkalis and Oxidizing materials.

SECTION 11 - TOXICITY INFORMATION

Components: This product contains acidic material that will cause burns and intense irritation to eyes and/or skin. Ingestion of high amount of product is fatal.

SECTION 12 - ECOLOGICAL INFORMATION

Environmental Fate and Distribution: It is soluble in water and does not bio-accumulate.
Persistence and Degradation: Product degrades readily by reaction of carbon dioxide in the air as well as decomposition by microorganism.
Toxicity: Concentrations with a pH value of 6.0 or lower especially in fresh water may be fatal to fish and other aquatic organism. Can cause damage to aquatic plants and vegetation.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal: Dispose in an approved waste facility according to local regulations.

General Recommendations:
Of the methods of disposal currently available, it is recommended that an alternative be selected according to the following order of preference, based upon environmental acceptability: (1) Re-cycle or rework, if feasible (2) Incinerate at an authorized facility (3) Treat at an acceptable waste treatment facility.

SECTION 14 - TRANSPORT INFORMATION

This material is non-regulated and no special requirement is necessary.

SECTION 15 - REGULATORY INFORMATION

Classification: This product contains hydrochloric acid as an ingredient that is classified as corrosive under EC Classification.

Ozone Depleting Chemicals: No regulated ingredients.

SECTION 16 - OTHER INFORMATION

Hazard Rating: HMIS (Hazardous Materials Information System)
HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 1
0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Extreme