

Acid 4000

Liquid Acid Circulation Cleaner

DESCRIPTION:

Acid 4000 is a low foaming, heavy duty phosphoric acid cleaner. Its excellent surfactant package penetrates soils and aids in mineral deposit removal.

In Dairy operations and HTST (High Temperature Short Time) acid circulation phases, **Acid 4000** is used for milkstone removal and the light yellow colour helps in safe chemical handling.

SPECIAL INFORMATION:

Store upright at temperatures above freezing and do not mix with Bleach or any other cleaners.

Acid 4000 is a Canadian Food Inspection Agency (CFIA) approved product for use in registered food processing plants. Surfaces in direct food contact must be rinsed with potable water.

Acid 4000 is also BC Kosher approved.

DIRECTIONS FOR USE:

Manual Cleaning: (All plant and milk house equipment) After rinsing with clear water brush thoroughly with 0.75 to 1.50% **Acid 4000** by volume with water (1:133-1:66) at about 46°C (115°F). Rinse with clear water.

Milkstone Removal: (Plant and milk house equipment) For heavy milkstone use 1.5 to 2.3% by volume of **Acid 4000** with warm water (1:66-1:43), or up to 50% solution as necessary and allow to penetrate for a few minutes. Continue as for manual cleaning.

Farm Pipeline Cleaning: Periodically use **Acid 4000** to follow or replace alkaline cleaning. Rinse with clear water by recirculating or flushing. Recirculate or flush clean using 0.3 to 0.6% **Acid 4000** by volume with water (1:333-1:166) at 43-60°C (110-140°F) for 15 to 30 minutes. Rinse with clear water.

PHYSICAL DATA

Appearance	Clear liquid
Color	Yellow
Foam	Low
Odor	Mild, indistinct
pH	Strong Acid

MATERIAL SAFETY DATA SHEET

SECTION 1 – PRODUCT/MANUFACTURER'S IDENTITY

Product Name: **ACID 4000**

WHMIS CODE: E
Proper Shipping Name: PHOSPHORIC ACID, LIQUID
Hazard Class: Class 8, P.G. III
UN Number: UN 1805

Product Use: *Low foaming acid cleaner.*

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HMIS	
3	Health
0	Flammability
0	Reactivity
C	Personal

A=Goggles, B=Goggles & Gloves
C=Goggles, Gloves and Apron

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
PHOSPHORIC ACID	7664-38-2	25.0-45.0	1 ppm	1ppm
LD50 (oral rat)	1530 mg/kg			
LD50 (dermal)	2740 mg/kg			
LC50	No Data			

SECTION 3 – PHYSICAL DATA

Color and Odor: Clear, yellow /low odour
Physical State: Liquid.
Boiling Point: N/D
Melting Point: N/A
Evaporation Rate: N/D
Vapor Pressure (mm HG): N/D
Vapor Density: N/D
Solubility in Water: Soluble
pH: 1.9 @ 4.9% solution.
Specific Gravity: 1.19 @ 20°C
Odor Threshold: No Data
Coef. Water/Oil Dist: Greater than 1.0

SECTION 4 – FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method: None to 100°C (TCC)
Flammable Limits: None known.
Conditions of Flammability: None.
Unusual Fire and Explosion Hazards: Prolonged contact with reactive metals (i.e. aluminum, tin, zinc, etc.) May form flammable and explosive hydrogen gas in confined areas.
Hazardous Combustion Products: May liberates oxides of phosphorus under fire situation.
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.
Sensitivity to Mechanical Impact: None.
Sensitivity to Static Discharge: None.
Extinguishing Media: Not flammable.
Auto ignition Temperature: None known.

SECTION 5 – REACTIVITY DATA

Chemical Stability: Stable under normal storage conditions.
Incompatibility (material to avoid): Avoid contact with strong alkali or soft metals like aluminum, zinc etc.
Hazardous Decomposition Products: May liberates oxides of phosphorus under fire situation.
Hazardous Polymerization: Will not Occur.

SECTION 6 – TOXICOLOGICAL DATA

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 skin irritation or dermatitis, respiratory disorder, or lung damage.
Effects of Acute Exposure to Product: Product exposure may burn eyes and irritate or burn skin. Inhaling vapors or mists may cause respiratory discomfort such as breathing problems, burning, coughing, etc. Ingestion may cause gastrointestinal and abdominal discomfort.
Routes of Entry: Skin, eyes, inhalation.
Carcinogenicity: None known.
Mutagenicity: None known.
Reproductive Toxicity: None known.

SECTION 7 – PREVENTATIVE AND CONTROL MEASURES

Respiratory Protection: Use a NIOSH/MSHA approved acid gas respirator for vapors and a dust/mist respirator for misting or spraying operations.
Ventilation: Good general ventilation or local exhaust ventilation for spraying and misting in confined areas.
Protective Gloves: Natural or butyl rubber, nitrile or neoprene gloves.
Eye Protection: Chemical goggles, safety goggles or glasses.
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. Keep container closed when not in use. Do not mix with any other chemicals. Store at temperatures below 30°C (86°F) and keep from freezing.
Disposal Procedures for Spills or Leaks: Wear protective equipment. Dike and contain large spills. For small spills, soak up with a suitable absorbent such as clay, soil or commercially available absorbents, and then dispose of into an approved waste container. Keep away from sewers and out of natural waters.
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 30°C (86°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

PREPARED BY: Technical Service / Regulatory Division

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LAST UPDATE: Dec. 15, 2014

THE INFORMATION PROVIDED IN THIS MATERIAL SAFETY DATA SHEET HAS BEEN OBTAINED FROM CURRENT SOURCES AND IS BELIEVED TO BE RELIABLE