

# MATERIAL HEALTH & SAFETY DATA SHEET

(Key: > = Greater than; < = Less than)

## SECTION 1 - MATERIAL IDENTIFICATION & USE

Material Name: **HULL & BOTTOM CLEANER - Codes 376-7-8**

Supplier: *Captain* PHAB Ltd.

Address: 613 Neal Drive  
Peterborough, Ontario.  
K9J 6X7

Emergency Telephone #: 705 748-0436

Chemical Name: Molecular Weight: n/a

Chemical Family: acids Trade Name/Synonyms: n/a

Chemical Formula: n/a Material Use: Deposit removal on boat hulls & bottoms

## SECTION 2 - HAZARDOUS INGREDIENTS OF MATERIAL

<u>Hazardous Ingredients</u>	<u>Approximate Concentration %</u>	<u>C.A.S.N.A. or U.N. Numbers</u>	<u>"Exposure Limits"</u>	<u>LD50 / LC50 Oral, Rat - Mg/Kg</u>
Sulphuric Acid	3-7	7664-93-9	n/av	2140
Oxalic Acid	3-7	144-62-7	TLV 1 mg/m3	375
Phosphoric Acid	3-7	7664-38-2	TLV 1 mg/m3	1530
Nonyl Phenol Ethoxylate	3-7	9016-45-9	N/Av	2.5

## SECTION 3 - PHYSICAL DATA FOR MATERIAL

Physical State: Liquid Specific Gravity: 1.03 @20°C Odour Threshold(ppm): n/av

Odour & Appearance: wintergreen odour, yellow opaque

Vapour Pressure (mm/Hg) n/av Vapour Density (Air=1) n/av Evaporation Rate: n/av Boiling Point (°C): 99 Freezing Point (°C): 0

Solubility in Water(20°C): completely % Volatile (by volume): 92.0 pH: n/ap Density (g/ml): 1.03

Coefficient of water/oil distribution: n/av

## SECTION 4 - FIRE AND EXPLOSION HAZARD OF MATERIAL

Flammability: NO

Means of Extinction: n/ap

Special Procedures: Protect fire fighters against corrosive fumes and liquid if released.

Flash point(°C) & Method: n/a Upper explosion limit(% by volume): n/ap Lower explosion limit (% by volume):n/ap

Auto Ignition Temperature(°C): n/ap Flammability Classification: n/ap Hazardous Combustion Products: n/ap

Chemical Sensitivity to Impact: n/av Rate of Burning: n/ap Explosion Power: n/av Sensitivity to Static Discharge: n/ap

## SECTION 5 - REACTIVITY DATA

Chemical Stability : Yes Conditions:

Incompatibility to other substances: Yes Substances: Reacts to most common metals. May react violently with many inorganic materials.  
Do NOT mix with oxides.

Reactivity and under what conditions: Acid may initiate polymerization of organic oxides.

Hazardous Decomposition Products: Hydrogen when in contact with metals; hydrogen chloride gas upon heating.

**SECTION 6 - TOXICOLOGICAL PROPERTIES OF PRODUCT**

Route of Entry:: Skin Contact: ...X..... Skin Absorption:....X..... Eye Contact:....X.....  
Inhalation Acute:X..... Inhalation Chronic:..... Ingestion:....X.....

Effects of Acute Exposure to Product: Coughing, choking inflammation and ulceration of respiratory tract, corrosion of mucous membranes, esophagus, stomach, nausea, vomiting , intense thirst, diarrhea.

Effects of Chronic Exposure to Product: Severe irritation to mucous membranes of the eyes, permanent visual damage, dermatitis, photosensitivity and severe burns, circulatory collapse and death may occur.

LD50 of Product (Specify Species & Route) : n/av Sensitization to Product: n/av  
LC50 of Product (Specify Species): n/av Exposure limits of Product: n/av  
Irritancy of Product: n/av Synergistic materials: n/av

Carcinogenicity:..... Reproductive effects: Teralogenicity:..... Mutagenicity:..  
NO KNOWN SYSTEMIC EFFECTS

**SECTION 7 - PREVENTIVE MEASURES**

Personal Protective Equipment:

Gloves: rubber Respiratory: air purifying respirator Eye: goggles Footwear: acid resistant  
Clothing:..rubber apron.....Other:

Engineering Controls:

Leak & Spill Procedure: Do not allow chemical to enter sewers or waterways . With large leak, dyke for later disposal. Evacuate upwind, wear protective clothing, dilute spilled acid to reduce fumes.

Waste Disposal: Protect natural and metal structures from acid.

Handling Procedures & Equipment: Keep containers closed, use adequate ventilation, keep out of sun and away from direct sources of heat.

Storage Requirements: Store containers away from metals and oxidizing materials particularly nitric acid and chlorates.

Special Shipping Information:

**SECTION 8 - FIRST AID MEASURES**

Skin: Remove contaminated clothing immediately and flush with clean water for at least 15 minutes. Get medical help promptly .

Eyes: Hold eyelids open and wash thoroughly with clean water for at least 15 minutes. Get medical help promptly.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration; give oxygen by qualified personnel, if breathing is difficult. Get medical help promptly.

Ingestion Get medical help immediately. Patient should drink large amounts of milk or water. Do NOT induce vomiting.:

General advice:

**IN CASE OF A DANGEROUS GOODS EMERGENCY CALL CANUTEC'S 24 HOUR NUMBER – 613-996-6666**

**SECTION 9 - PREPARATION DATE OF M.S.D.S.**

Additional information/Comments:

Sources Used: Ingredient manufacturers and packaging agent.

Prepared by: Abe Kelly Phone #: 705 748-0436 Fax: 705 876-6467 Date: January 1, 2006 Revision Date: December 1, 2006.