

MATERIAL SAFETY DATA SHEET

Captain Phab Ltd.

Hull and Bottom Cleaner
Part # 376, 377, 378

SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

Product identifier: Capt Phab Hull & Bottom Cleaner
WHMIS Classification: D1A, E.

Product Use: Hull Cleaner.

Supplier name and address:

Captain Phab Ltd.
613 Neal Drive
Peterborough
Ontario K9J 6X7
1 888 228 4050

Manufacturer's name and address:

Same as supplier.

Emergency Telephone #: 1-888-228 4050

SECTION 2 — CHEMICAL COMPOSITION/HAZARDOUS INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>% (weight)</u>	<u>LD₅₀ mg/kg oral/rat</u>	<u>LD₅₀ mg/kg skin/rabbit</u>	<u>LC₅₀ ppm inh/mouse</u>
Sulphuric acid	7664-93-9	3-7	n/av	n/av	1276 /1H
Oxalic Acid	144-62-7	3-7	375	500	n/av
Phosphoric acid	7664-38-2	3-7	1530	n/av	n/av

SECTION 3 — HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

Routes of entry: Inhalation, ingestion, skin and eye contact.

Emergency Overview: Danger! Extremely corrosive! Causes severe burns and eye damage. Poison!

Signs and symptoms of short-term (acute) exposure:

Inhalation: Severely corrosive to the respiratory tract. May cause sore throat, coughing, labored breathing and lung congestion/inflammation.

Skin contact: Corrosive to the skin. Skin contact causes serious skin burns which may not be immediately apparent or painful.

Eye contact: Contact can result in corneal damage or blindness. Immediate pain, severe burns.

Ingestion: Corrosive. May cause sore throat, abdominal pain, diarrhea, vomiting, severe burns of the digestive tract, and kidney dysfunction. Oxalic acid removes Calcium from the blood and can result in kidney failure.

Effects of long-term (chronic) exposure: See Section 11. **Other important hazards:** None reported.

SECTION 4 — FIRST AID MEASURES

Inhalation: Remove victim to fresh air. If symptoms persist, call a physician.

Skin contact: Flush skin with plenty of water, for at least 15 minutes, while removing contaminated clothing. Call physician immediately. Wash contaminated clothing before reuse. Obtain medical attention.

Eye contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Consult a doctor immediately.

Ingestion: Immediately call physician. DO NOT induce vomiting. Give several glasses of water. Never give anything by mouth if victim is unconscious or convulsing.

MATERIAL SAFETY DATA SHEET

Captain Phab Ltd.

Hull and Bottom Cleaner
Part # 376, 377, 378

SECTION 5 — FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability: Not flammable.

Flash point (Method): Not applicable. °C (°F).

Lower flammable limit (% by volume): n/ap.

Upper flammable limit (% by volume): n/ap.

Explosion data: *Sensitivity to mechanical impact:* Not sensitive. *Sensitivity to static discharge:* Not sensitive.

Oxidizing properties: None.

Auto-ignition temperature: None.

Suitable extinguishing media: As appropriate for burning of surrounding products.

Special fire-fighting procedures/equipment: n/ap.

Hazardous combustion products: n/ap.

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear adequate personal protective equipment.

Environmental precautions: No special precautions required.

Spill response/Cleanup: Recover and reuse as much of the product as possible. Restrict access to area until completion of clean up. Ensure trained personnel conduct clean up. Do not touch spilled material.

Prohibited materials: None known.

SECTION 7 — HANDLING AND STORAGE

Safe handling procedures: Product is corrosive. Avoid contact with skin, eyes and clothing. Wear proper protective equipment, including rubber gloves.

Storage requirements: Store in a cool, dry area. Keep away from incompatible materials, (see Sect. 10).

Special packaging materials: Plastic or other corrosion resistant containers. Do not use glass containers!

Hydrogen fluoride attacks glass and other silicon containing compounds. Reacts with silica to produce silicon tetrafluoride, a hazardous colorless gas

SECTION 8 — EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Respiratory protection: A full facepiece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Protective gloves/Skin protection: Wear protective clothing, including boots or safety shoes with polyvinyl chloride (PVC) or neoprene. Wear coveralls with long sleeves, gauntlets and gloves of PVC or neoprene. A. Use protection suitable for conditions.

Eye protection: Use chemical goggles and/or a full face shield.

Other protective equipment: As required by workplace standards.

MATERIAL SAFETY DATA SHEET

Captain Phab Ltd.

Hull and Bottom Cleaner
Part # 376, 377, 378

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Physical form, color and odor: Beige viscous liquid.

Odor threshold: n/av.

pH: <1.

Boiling point: n/av.

Melting/freezing point: n/av.

Vapour pressure: n/av.

Solubility in water: Very soluble.

Coefficient of oil/water distribution: Essentially zero.

Specific gravity or relative density (water = 1): 1.0.

Vapour density: n/av.

Volatile organic compounds (VOC's): n/ap

Evaporation rate: n/ap **Percent Volatile by Weight:** n/av

SECTION 10 — REACTIVITY AND STABILITY DATA

Stability and reactivity: Normally stable.

Conditions to avoid: Unintentional contact with water and moisture. Keep containers tightly closed, when not in use.

Materials to avoid: Strong bases, reactive metals. When diluting DO NOT add water to the acid. Add acid to water.

Hazardous decomposition products: Oxides of carbon, sulphur oxides.

SECTION 11 — TOXICOLOGICAL INFORMATION

LD₅₀: Not established for this product. See Section 2 for values for ingredients.

LC₅₀: Not established for this product. See Section 2 for values for ingredients.

Exposure limits: ACGIH-TLV Oxalic: -OSHA Permissible Exposure Limit (PEL): 3 ppm (TWA)
ACGIH Threshold Limit Value (TLV): 3 ppm Ceiling as 2 ppm (Ceiling) for Oxalic acid.

Carcinogenicity: None of the ingredients is listed by IARC, ACGIH, NTP, and OSHA as carcinogen.

Teratogenicity, mutagenicity, other reproductive effects: Hydrogen fluoride is investigated as mutagen and reproductive effector.

Sensitization to material: Not reported.

Conditions aggravated by exposure: Skin conditions.

Synergistic materials: None known.

Chronic Exposure: Kidney damage possible.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders, eye problems, or impaired kidney or respiratory function may be more susceptible to the effects.

SECTION 12 — ECOLOGICAL INFORMATION

Environmental effects: Product is corrosive. Low pH (acidity) of material is harmful to aquatic life.

SECTION 13 — WASTE DISPOSAL

Handling for disposal: Reuse if possible.

Methods of disposal: Use only licensed waste disposal services. Follow local, provincial, state and federal regulations.

MATERIAL SAFETY DATA SHEET

Captain Phab Ltd.

Hull and Bottom Cleaner
Part # 376, 377, 378

SECTION 14 — TRANSPORTATION INFORMATION

Shipping description: TDG – Corrosive liquid, N.O.S. (Phosphoric Acid), Class 8, UN 1760, PG II.

Please note: This shipping description is of a general nature only. It does not consider package sizes, modes of transport and other specific circumstances. Appropriate regulations should be referenced, and handling for transportation of dangerous goods/hazardous materials should be performed by trained personnel only.

SECTION 15 — REGULATORY INFORMATION

WHMIS information: D1A, E.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

SECTION 16 — OTHER INFORMATION

Prepared for: Captain Phab Ltd.

Telephone number: 1 888 228 4050

Preparation date: January 2, 2014.

References:

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2003.
2. International Agency for Research on Cancer Monographs, Supplement 7, 1988.
3. Canadian Centre for Occupational Health and Safety. CHEMINFO database.
4. Material Safety Data Sheets from raw materials suppliers.
5. N. Irving Sax. Dangerous Properties of Industrial Materials, Seventh Edition.

n/ap Not applicable

n/av Not available