



## MATERIAL SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION:

**Product Name:** **Phosphoric Acid, 38% Solution**  
**(H<sub>3</sub>PO<sub>4</sub>)**

**Trade Name:** **Eco-Sheen**

**Product Use:** For Water Treatment, Fertilizers  
Plating chemicals. Food additive.  
Chemical intermediate.

**Emergency Phone Number:**  
**877-378-7745**

**Supplier Name & Address:**  
**FLOCHEM LTD.**  
R.R. #7  
Guelph, ON, N1H 6J4

**Effective Date:** August 1, 2016

### SECTION 2 - COMPOSITION/INFORMATION INGREDIENTS:

| <u>Ingredients</u> | <u>CAS#</u> | <u>Wt%</u> | <u>Exposure Limits</u>       |
|--------------------|-------------|------------|------------------------------|
| Phosphoric Acid    | 7664-38-2   | 38-40%     | OSHA PEL: 1mg/m <sup>3</sup> |

### SECTION 3 - HAZARDS IDENTIFICATION:

#### **Emergency Overview:**

Causes respiratory tract, eye, and skin irritation/burns. Harmful if swallowed.

#### **Route of Entry:**

Eye Contact, Inhalation and Ingestion.

*(See Section 11 for Toxicological Information)*

### SECTION 4 - FIRST AID:

**Inhalation:** Move victim to fresh air. Give victim oxygen if breathing is difficult. Give artificial respiration only if breathing has stopped. Seek immediate medical attention.

**Skin Contact:** Wash affected area with soap and water. Remove contaminated clothing and launder prior to reuse. If irritation persists, seek immediate medical attention.

**Eye Contact:** Immediately flush eyes with running water for a minimum of 15 minutes, preferably up to 30 minutes, holding eyelids open. If irritation persists, repeat flushing and seek immediate medical attention.

**Ingestion:** **DO NOT** induce vomiting. Have victim consume large amounts of water or milk. Seek immediate medical attention.

## SECTION 5 - FIRE FIGHTING MEASURES:

|                                                 |                                                                                                                                                      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Flammability Class (WHIMIS):</b>             | Non- flammable                                                                                                                                       |
| <b>Autoignition Temperature (Deg. Celsius):</b> | Not applicable                                                                                                                                       |
| <b>Flash Points:</b>                            | Not applicable                                                                                                                                       |
| <b>Products of Combustion:</b>                  | Not applicable.                                                                                                                                      |
| <b>Fire Extinguishing Procedure:</b>            | Use dry chemicals, CO2 water spray or foam.<br>Do not use water jet. Wear NIOSH approved self-contained breathing apparatus when in confined spaces. |

The product reacts with certain metals to form flammable hydrogen gas (in air).

## SECTION 6 - ACCIDENTAL RELEASE MEASURES:

**Spill or Leak:** Wear protective clothing. Spilled acid may cause floors and contact surfaces to become slippery. Eliminate all sources of ignition. Collect product for recovery or disposal. Neutralize with lime, sodium carbonate or calcium carbonate. For release to land, or storm water runoff, contain discharge by constructing dykes or applying inert absorbent; for release to water, utilize damming and/or water diversion to minimize the spread of contamination. Ventilate enclosed spaces. Notify applicable government authority if release is reportable or could adversely affect the environment.

## SECTION 7 - HANDLING & STORAGE:

Follow routine safe handling procedures. Keep containers tightly closed in a cool, well-ventilated area. Keep from freezing and away from oxidizers. Wear protective clothing, including chemical goggles, safety boots and respirator if conditions warrant.

## SECTION 8 - EXPOSURE CONTROLS:

**Engineering Controls:** Local exhaust ventilation required. Ventilation should be corrosion proof. Ventilate low-lying areas such as sumps or pits.

**Eye Protection:** Use full face-shield and chemical safety goggles when there is potential for contact.

**Skin Protection:** Gloves and protective clothing made from butyl rubber or PVC should be impervious under conditions of use. Attacks some types of rubber, plastics and coatings.

**Respiratory Protection:** A NIOSH/MSHA - approved full-face shield with acid gas, dust, mist, fume cartridge.

**Other Personal Protective Equipment:** Safety shower and Eyewash station should be located in close proximity to chemical handling area.

## SECTION 9 - PHYSICAL PROPERTIES:

|                                         |                            |
|-----------------------------------------|----------------------------|
| <b>Physical State &amp; Appearance:</b> | Viscous liquid, colourless |
| <b>Odour:</b>                           | Odourless                  |
| <b>Odour Threshold (ppm):</b>           | Not available              |
| <b>Boiling Range (°C):</b>              | 270°F                      |
| <b>Vapour Pressure (mm Hg at 20°C):</b> | 5.0 mm of Hg (@ 78°F)      |
| <b>Specific Gravity:</b>                | 1.225 (Water =1)           |
| <b>Solubility in Water:</b>             | Complete                   |
| <b>% Volatile by Volume:</b>            | 100%                       |
| <b>pH:</b>                              | <1.0 (Strongly Acidic)     |

## SECTION 10 - STABILITY & REACTIVITY:

|                                                   |                                                                                                                         |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity:</b>                                | Sulphides, phosphides, cyanides, fluorides, carbides & sillicides.<br>Avoid contact with oxidizers and reducing agents. |
| <b>Stability:</b>                                 | Product is stable. Will attack metals.                                                                                  |
| <b>Decomposition<br/>or Combustible Products:</b> | Thermal decomposition products are toxic and may include<br>oxides of phosphorus.                                       |

Hazardous polymerization will not occur.

## SECTION 11 - TOXICOLOGICAL INFORMATION:

**Toxicity to Animals:** Acute oral toxicity (LD50): 1530 mg/kg (Rat)

Acute dermal toxicity (LD50): 2740 mg/kg (Rabbit)

**Carcinogenicity:** Not Available.

**Mutagenic Effects:** Not Available

Repeated or prolonged contact with spray or mist may produce chronic eye and severe skin irritation.

Repeated exposure by inhalation may produce respiratory irritation. Dermatitis may occur from repeated skin contact.

## SECTION 12 - ECOLOGICAL CONSIDERATIONS:

**Ecotoxicity:** Harmful to aquatic life at low concentrations. Toxicity is primarily associated with pH. Acidic soil conditions can develop with product present. Higher than normal toxic heavy metal concentrations can then occur in ground and surface waters.

**Fish Toxicity:** 24-hour TLm 138 ppm (mosquito fish, fresh water).

### SECTION 13- DISPOSAL CONSIDERATIONS:

Neutralize carefully with soda ash or sodium bicarbonate to a pH of 6 to 9. Neutralization is expected to be exothermic. Vigorous effervescence results.

**Waste Disposal Methods:** Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.

**Safe Handling of Residues:** Empty containers retain product residue (liquid and/or vapour) and can be dangerous.

### SECTION 14 - TRANSPORT INFORMATION:

|                                    |                         |
|------------------------------------|-------------------------|
| <b>Shipping Name:</b>              | Phosphoric Acid, Liquid |
| <b>Shipping Class:</b>             | 8                       |
| <b>Product Identification No.:</b> | UN1805                  |
| <b>Packing Group:</b>              | III                     |

### SECTION 15 - REGULATORY INFORMATION:

**Controlled Products Regulations Classification (WHMIS):** E, Corrosive Liquid

### SECTION 16 - OTHER INFORMATION:

**Disclaimer:**

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO THE BEST OF OUR KNOWLEDGE, TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS OBTAINED FROM THE USE THEREOF.

**Prepared by:** **FLOCHEM LTD.**

Regulatory Affairs Manager

(519) 763-5441

Fax: (519) 763-9691

**e-mail:** [solutions@flochem.com](mailto:solutions@flochem.com)

**website:** [www.flochem.com](http://www.flochem.com)

**– END OF MSDS –**