



Safety Data Sheet

| Section 1. Identification | | |
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| Product Identifier | Phosphoric Acid 75% | Version: 6 Effective Date: 19 February, 2016 |
| Other Means Of Identification | N/A | |
| Initial Supplier Identifier | Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055 | |
| Recommended Use and Restrictions On Use | Mineral acid, industrial descaler. No restrictions. | |
| Product Family | Inorganic Acid | |
| 24 Hour Emergency | Canutec (613) 996-6666 | |

| Section 2. Hazard Identification | |
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| Hazard Classification |   |
| Physical Hazards | Corrosive To Metals – Category 1 |
| Health Hazards | Acute Toxicity (Oral) – Category 4 Skin Corrosion/Irritation – Category 1A Eye Damage/Irritation - Category 1 |
| Environmental Hazards | Hazardous To The Aquatic Environment – Short Term (Acute) Hazard – Category 2 |
| Signal Word | Danger |
| Hazard Statement | May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and serious eye damage. Toxic to aquatic life. |
| Precautionary Prevention Statement | Keep only in original packaging. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dusts or mists. Wear protective gloves, clothing eye and face protection. Avoid release to the environment. |

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| Precautionary Response Statement | <p>Absorb spillage to prevent material damage.</p> <p>IF SWALLOWED: Call a doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower if on clothing. Wash contaminated clothing before reuse.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.</p> <p>Specific Treatment: do not induce vomiting unless directed by medical personnel.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.</p> |
| Precautionary Storage Statement | <p>Store in a corrosion resistant container with a resistant inner liner.</p> <p>Store locked up.</p> |
| Precautionary Disposal Statement | <p>Dispose of contents/container in accordance with local regulations.</p> |
| Other Hazards | <p>None</p> |

Section 3. Composition / Information on Ingredients

| Chemical Name | Common Name or Synonyms | CAS NO. and Other Unique Identifiers | % by weight |
|-----------------|-------------------------|--------------------------------------|-------------|
| Phosphoric Acid | N/A | 7664-38-2 | 70 - 80 |

Section 4. First-Aid Measures

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| Eye Contact | <p>Flush eyes with water for 15 minutes. Seek medical attention.</p> |
| Skin Contact | <p>Flush area with water. If irritation persists seek medical attention.</p> <p>Laundry clothing before reuse.</p> |
| Inhalation | <p>Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.</p> |
| Ingestion | <p>Rinse out mouth, and give two glasses of water. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.</p> |
| Most Important Symptoms and Effects Both Acute and Delayed | <p>Causes severe respiratory irritation if inhaled. Symptoms may include: Burning of nose and throat, constriction of airway, difficulty breathing, shortness of breath, bronchial spasms, chest pain, and pink frothy sputum. Contact may cause immediate severe irritation progressing quickly to chemical burns. May cause pulmonary edema. Symptoms may be delayed.</p> |

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| | <p>Contact with eyes can cause blindness.</p> <p>Repeated or prolonged inhalation may damage lungs. Prolonged and repeated contact will eventually cause permanent tissue damage and effects such as erosion of teeth, lesions on the skin, tracheo-bronchitis, mouth inflammation, conjunctivitis, and gastritis.</p> |
| Immediate Medical Attention and Special Treatment | <p>Remove/Take off immediately all contaminated clothing. Rinse immediately with plenty of water (for at least 15 minutes). Seek medical attention immediately if exposure is severe. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.</p> |

| Section 5. Fire-Fighting Measures | |
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| Suitable and Unsuitable Extinguishing Media | <p>Use extinguishing media suitable for the surrounding fire.</p> <p>Do not get water inside containers. Do not apply water stream directly at source of leak. Do not use a heavy water stream. A direct water stream will cause violent splattering and generation of heat.</p> |
| Hazardous Combustion Products | <p>Oxides of phosphorus.</p> |
| Specific Hazards Arising From the Product | <p>Under conditions of fire this material may produce: Oxides of phosphorus; Phosphine.</p> |
| Special Protective Equipment and Precautions For Fire-Fighters | <p>Fire-fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.</p> <p>Reacts with metals to generate flammable hydrogen gas. Containers exposed to intense heat from fires should be cooled with water to prevent vapour build up which could result in container rupture. Use water spray or fog to reduce or direct vapours.</p> |

| Section 6. Accidental Release Measures | |
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| Personal Precautions, Protective Equipment and Emergency Procedures | <p>Chemical resistant (rubber / neoprene) gloves, coveralls and footwear. Stop leak if safe to do so. Eliminate ignition sources. Evacuate unnecessary personnel. Ventilate area. Keep upwind.</p> |
| Environmental Precautions | <p>Do not allow spilt material to enter surface drains and watercourses.</p> |
| Methods and Materials for Containment and Clean-Up | <p>Stop the leak at source. Contain spilt material using dikes. Only persons with protective equipment should be allowed in the area. Pump up spilt material and place in a suitable container for disposal. Cover contaminated area with soda ash or sodium bicarbonate/ flaked lime</p> |

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(50:50 mix). Mix to a slurry – add water if needed. Scoop up slurry for disposal. Wash area with soda ash solution.

Section 7. Handling and Storage

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| Precautions For Safe Handling | Handle with care. To dilute add product to water slowly to prevent boiling and splattering. |
| Conditions For Safe Storage | Store in a cool dry place. Keep containers closed when not in use. Empty containers may contain hazardous residues. |

Section 8. Exposure Controls / Personal Protection

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| Control Parameters | TWA: 8 Hr | STEL: 15 min | Ceiling | IDLH * |
| Phosphoric Acid | 1 mg/m ³ (CAD AB OEL) | 3 mg/m ³ (CAD AB OEL) | | 1000 mg/m ³ |
| * Immediately Dangerous to Life and Health | | | | |
| Exposure Controls | Local exhaust ventilation | | | |
| Appropriate Engineering Controls | Provide sufficient ventilation to keep vapors below the permissible exposure limit. Ensure adequate ventilation, especially in confined areas. Packaging and unloading areas and open processing equipment may require mechanical exhaust systems. Corrosion-proof construction recommended. Ensure eye wash station and safety shower are available. | | | |
| Individual Protective Measures | | | | |
| Eye / Face Protection | Safety glasses | | | |
| Skin Protection | Chemical resistant (rubber/ neoprene) gloves, coveralls | | | |
| Respiratory Protection | Air purifying respirator fitted with cartridges for acid vapours and mists | | | |

Section 9. Physical and Chemical Properties

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| Appearance | Clear, colourless liquid |
| Odour | Odourless |
| Odour Threshold | Not applicable |
| pH | <1 |
| Flash Point | > 100 °C |
| Boiling Point and Boiling Range | 111 °C |
| Melting Point and Freezing Point | -80 °C |
| Evaporation Rate | >1 |

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| Flammability (solid, gas) | Not applicable |
| Upper and Lower Flammability or Explosive Limits | No data |
| Vapour Pressure | 15 mmHg @ 40 °C |
| Vapour Density | No data |
| Relative Density | 1.58 gm/cm ³ @ 15.56 °C |
| Solubility | Soluble |
| Partition co-efficient, n-Octanol/Water | No data |
| Auto-ignition Temperatures | No data |
| Decomposition Temperature | No data |
| Viscosity | 23 cP at 40 °C (104 °F) (85% Phosphoric acid) |

Section 10. Stability and Reactivity

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| Reactivity | Material is hygroscopic. Acidic liquids, such as this material, may react with metals and release hydrogen gas. |
| Chemical Stability | Stable |
| Possibility of Hazardous Reactions | Will not occur |
| Conditions to Avoid | None known |
| Incompatible Materials | Avoid contact with: fluorine, strong oxidising agents, strong bases, metals, sulphur trioxide, phosphorus pentoxide |
| Hazardous Decomposition Products | This material will react with metals to produce hydrogen gas which can form explosive mixtures in air. |

Section 11. Toxicological Information

| Component Toxicity | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------------------------|---|--------------------|-----------------------------|
| Phosphoric Acid | 1530mg/kg (Rat) | 2730mg/kg (Rabbit) | 850 mg/m ³ (Rat) |
| Likely Routes of Exposure | | | |
| Skin: | May cause severe skin burns. | | |
| Eyes: | May cause severe burns and even permanent blindness. | | |
| Inhalation: | May cause severe irritation of the respiratory tract. Breathing this material may be harmful or fatal. | | |
| Ingestion: | May cause burns and destroy tissue in the mouth, throat and digestive tract. Symptoms may include irritation of the digestive tract – nausea, vomiting and diarrhea – abdominal pain and vomiting of blood. Ingestion may be fatal. | | |



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| Acute Toxicity Estimates (ATE) | 1530 mg/kg (oral, rat) Harmful if swallowed |
| STOT (Specific Target Organ Toxicity) – Single Exposure | May cause respiratory irritation |
| Aspiration Toxicity | Not classified |
| STOT (Specific Target Organ Toxicity) – Repeated Exposure | Not classified |
| Skin Corrosion / Irritation | Causes severe skin burns and eye damage. pH: 1 – 1.5 |
| Serious Eye Damage / Irritation | Causes serious eye damage. pH: 1 – 1.5 |
| Respiratory or Skin Sensitization | Not classified |
| Carcinogenicity | Not listed |
| Reproductive Toxicity | |
| - Sexual Function and Fertility | Not classified |
| - Development of Offspring | Not classified |
| - Effects on or via Lactation | Not classified |
| Germ Cell Mutagenicity | Not classified |
| Interactive Effects | Not classified |
| Other Information | None known |

Section 12. Ecological Information

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| Ecotoxicity | Phosphoric acid: LC50: 3 – 3.5 mg/L (Gambusia affinis) |
| Persistence and Degradability | Will not persist |
| Bioaccumulative Potential | Not available |
| Biodegradability | Not available |
| Mobility in Soil | Not available |
| Other Adverse Effects | None known |

Section 13. Disposal Considerations

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| Disposal Considerations | Dispose of contents/container in accordance with local regulations. |
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| Section 14. Transport Information | |
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| UN Number | 1805 |
| UN Proper Shipping Name | Corrosive Liquid N.O.S |
| Transport Hazard Class(es) | 8 |
| Packaging Group | III |
| Environmental Hazards | Not applicable |
| Bulk Transport | Not applicable |
| Special Precaution | Not applicable |
| DOT Erg# | 154 |
| Limited quantity | 5L |

| Section 15. Regulatory Information | |
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| Canada – DSL Inventory | All components of this product are either on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or exempt |
| TSCA | All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt |
| Additional Information | None |

| Section 16. Other Information | |
|---|---|
| NFPA Rating | Health-2/ Flammability-0/Reactivity-2/Special Hazard-Not applicable |
| HMIS Rating | Health-2/Flammability-0/Reactivity-2/Personal Protection-See Section 8. |
| Prepared by: | Chemfax Products Ltd., Technical Department |
| Date Prepared: | 6 January, 2012 |
| Date of Latest Revision: | 19 February, 2016 |
| Disclaimer | |
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