



Safety Data Sheet

Section 1. Identification		
Product Identifier	Phosphoric Acid 75%	Version: 7 Effective Date: 25 January 2021
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	
Emergency Phone	1-855-887-2055 Monday - Friday 8:00am - 4:30pm MST	

Section 2. Hazard Identification	
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 in original packaging only. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not inhale dust or mist. Wear protective gloves, clothing eye and face protection. Avoid release to the environment.

Safety Data Sheet

Precautionary Response Statement	<p>Absorb spillage to prevent material damage.</p> <p>IF SWALLOWED: Seek medical attention if you feel unwell. Rinse mouth.</p> <p>Do NOT induce vomiting.</p> <p>IF ON SKIN (or hair): Immediately remove 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

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</p>

Safety Data Sheet

	<p>quickly to chemical burns. May cause pulmonary edema. Symptoms may be delayed.</p> <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, tracheobronchitis, mouth inflammation, conjunctivitis, and gastritis.</p>
Immediate Medical Attention and Special Treatment	<p>Immediately remove 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

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, or 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

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 spilled material to enter surface drains and watercourses.</p>
Methods and Materials for Containment and Clean-Up	<p>Stop the leak at source. Contain spilled material using dikes. Only persons with protective equipment should be allowed in the area. Pump up spilled material and place in a suitable container for disposal. Cover contaminated area with soda ash or sodium bicarbonate/ flaked lime</p>

Safety Data Sheet

(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

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

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

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



Manufacturer of Specialty Chemicals

Safety Data Sheet

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

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 oxidizing agents, strong bases, metals, sulphur trioxide, and 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. Inhaling 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 diarrhoea), abdominal pain, and vomiting of blood. Ingestion may be fatal.		



Manufacturer of Specialty Chemicals

Safety Data Sheet

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

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

Disposal Considerations	Dispose of contents/container in accordance with local regulations.
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Safety Data Sheet

Section 14. Transport Information	
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	
Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL), 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:	25 January 2021
Disclaimer	
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