

Section 1. Identification

Product identifier : Fosfo

Other means of identification : Codes : 291741, 610332

Recommended use and restrictions on use : Liquid descaler

Supplier identifier : Les Produits Sanitaires Lépine inc.
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24/7

Section 2. Hazard identification

Hazard classification of substance or mixture : CORROSIVE TO METALS – Category 1
SKIN CORROSION – Category 1
EYE DAMAGE – Category 1

Label elements

Symbol(s) :



Signal word :

Danger

Hazard statement(s) :

Causes severe skin burns, serious eye and respiratory tract damage. May be corrosive to metals.

Precautionary statement(s)

Prevention :

Keep only in original container. Do not breathe vapours or spray. Wear protective gloves and eye protection. Wash hand thoroughly after handling. Absorb spillage to prevent material damage.

Response :

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or a doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or a doctor.

Storage :

Store locked up.

Disposal :

Dispose of contents and container in accordance with local regulations.

Section 3. Composition/information on ingredients

Substance/material : Mixture

Chemical name	Common name	% (w/w)	CAS number
Phosphoric acid		30 – 60	7664-38-2
Citric acid		5 – 10	77-92-9

Based on current knowledge of the supplier and in the concentrations applicable, no other ingredients present are classified as hazardous to health or the environment, therefore would require reporting in this section. Occupational exposure limits, where available, are listed in section 8.

Section 4. First-aid measures

First-aid measures by route of exposure :

Eye contact :	Rinse cautiously with water for several minutes, lifting the eyelids occasionally. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center or doctor immediately.
Inhalation :	Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor immediately.
Skin contact :	Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice.
Ingestion :	Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a doctor or poison center.

Most important symptoms and effects (acute or delayed)

Potential acute health effects

Eye contact :	Causes serious eye damage.
Inhalation :	At high concentrations, may cause irritation to the nose and throat.
Skin contact :	Causes severe skin burns.
Ingestion :	May cause burns to the mouth, throat and gastrointestinal tract.

Signs/symptoms of overexposure

Eye contact :	Adverse symptoms may include : pain, tearing, conjunctivitis, corneal lesion, permanent blindness.
Inhalation :	Adverse symptoms may include : irritation to the nose, cough, shortness of breath, headache, confusion.
Skin contact :	Adverse symptoms may include : pain or irritation, dermatitis, burning or destruction of tissue.
Ingestion :	Adverse symptoms may include : abdominal pain, diarrhea, nausea, vomiting.

Immediate medical attention and special treatment, if necessary

Note to physician :	Symptomatic treatment required. Contact the poison treatment specialist immediately if large amounts have been ingested or inhaled.
Specific treatments :	No special treatment.
Protection of first responders :	See section 8.

See toxicological information (section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media :	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media :	None known.
<u>Specific hazard arising from the hazardous product :</u>	No specific risk of fire or explosion.
Hazardous combustion products :	If heated to decomposition, releases phosphorus oxides and reacts with water or vapor to produce heat and toxic and corrosive vapors.
Precautions for fire-fighters :	No special measures are required.
Protective equipment for fire-fighters :	It is important that firefighters wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a positive pressure face shield.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures :

Use appropriate personal protective equipment : respiratory protection, protective clothing, gloves and eye protection (see Section 8)

Methods and materials for containment and cleaning up :

Contain spill for neutralization, in order to prevent environmental contamination. Keep away from sewers or waterways. The small quantities must be removed, wiped and used, when it's possible. For general purpose cleaning, or drain in the sanitary sewers if the municipal and provincial regulations permit it. Recover the abundant quantities with vermiculite or all other absorbent, and eliminate as industrial waste. If the product flowed in the nature inform the municipal, provincial and federal authorities as required by law.

Section 7. Handling and storage

Precautions for safe handling

Protective measures :

Put on appropriate personal protective equipment (see Section 8).

Advice on general hygiene at work :

Refer to Section 8 for information on hygiene measures.

Conditions for safe storage (including incompatible materials) :

Store in accordance with local regulations.

Section 8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits :

Name of product or ingredient	Exposure limits - ACGIH	Exposure limits - OSHA	Immediately dangerous to life or health - IDLH
Phosphoric acid	1 mg/m ³ – TWA 3 mg/m ³ – STEL	1 mg/m ³ – TWA 3 mg/m ³ – STEL	1000 mg/m ³
Citric acid	Not available	Not available	Not available

Appropriate engineering controls :

General mechanical ventilation.

Individual protection measures

Hygiene measures :

Observe good personal hygiene measure.

Eye / face protection :

Wear eye protection such as protective glasses.

Skin protection :

Hand protection :

Wear chemical resistant gloves.

Body protection :

None required in normal use.

Other skin protection :

None required in normal use.

Respiratory protection :

None required in normal use.

Section 9. Physical and chemical properties

Appearance :

Colorless liquid

Odour :

Odorless

Odour threshold :

Not available

pH :

< 1

Melting point/Freezing point :

± 0 °C

Initial boiling point : :

± 100 °C

Flash point :

Closed cup : >93,3°C (>199,9°F)

Evaporation rate :

Not available

Flammability (solids and gases) :

Not applicable

Lower and upper flammability/explosive limit :	Not available
Vapour pressure :	Not available
Vapour density :	Not available
Relative density :	1,29 ± 0,01g/ml
Solubility :	Easily soluble in the following materials : cold and hot water
Partition coefficient n-octanol/water :	Not available
Auto-ignition temperature :	Not available
Decomposition temperature :	Not available
Viscosity :	Not available

Section 10. Stability and reactivity

Reactivity :	No specific test data to the reactivity available for this product or its ingredients.
Chemical stability :	The product is stable.
Possibility of hazardous reactions :	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid :	No specific data.
Incompatible materials :	Reactive or incompatible with the following materials: strong bases, oxidizing agents and reducers, bleach, metals.
Hazardous decomposition products :	If heated to decomposition, releases phosphorus oxides and reacts with water or vapor to produce heat and toxic and corrosive vapors.

Section 11. Toxicological information

Information on toxicological effects

Toxicological data :

Name of product or ingredient	Result	Species	Dosage	Exposure	Observation
Phosphoric acid	LD50 Oral	Rat	1530 mg/kg	-	-
	LD50 Dermal	Rabbit	2730 mg/kg	-	-
Citric acid	LD50 Oral	Rat	3000 mg/kg	-	-
	LD50 Dermal	Rat	>2000 mg/kg	-	-

Sensitization : No data available

Mutagenicity : No data available

Carcinogenicity : No data available

Toxicity to reproduction : No data available

Teratogenicity : No data available

Systemic toxicity for some target organs – single exposure : No data available

Target organ toxicity – repeated exposure : No data available

Route of exposure : Skin contact, eye contact, inhalation, ingestion.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : At high concentrations, may cause irritation to the nose and throat.

Skin contact : Causes severe skin burns.

Ingestion : May cause burns to the mouth, throat and gastrointestinal tract.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include : pain, tearing, conjunctivitis, corneal lesion, permanent blindness.

- Inhalation :** Adverse symptoms may include : irritation to the nose, cough, shortness of breath, headache, confusion.
- Skin contact :** Adverse symptoms may include : pain or irritation, dermatitis, burning or destruction of tissue.
- Ingestion :** Adverse symptoms may include : abdominal pain, diarrhea, nausea, vomiting.

Delayed and immediate effects, and chronic effects from short-term and long-term exposure

- Short-term exposure :** No important effects or critical dangers known.
- Long-term exposure :** No important effects or critical dangers known.
- Potential chronic health effects :** No important effects or critical dangers known.

Numerical value of toxicity

Acute toxicity estimates

Route of exposure	ATE value
Oral	>2000 mg/kg
Dermal	>3000 mg/kg

Section 12. Ecological information

Ecotoxicity :

Name	Results	Species	Exposure
Phosphoric acid	LC50 3-3,5 mg/L	Gambusia affinis	96 hours

- Persistence and degradability :** Not available
- Bioaccumulative potential :** Not available
- Mobility in soil :** Not available
- Other adverse effects :** The product may affect the acidity of the water, with the potential for adverse effects on aquatic organisms.

Section 13. Disposal considerations

- Disposal methods :** It is important to minimize or avoid generation of waste wherever possible. Dispose of contents and container in accordance with all applicable local, state, and national regulations.

Section 14. Transport information

- UN number :** UN1760
- UN proper shipping name :** CORROSIVE LIQUID N.O.S. (phosphoric acid)
- Packing group :** 8
- Environmental hazards :** III
- Special precautions :** Transport with local users : Always transport in containers that are correct and secure. Ensure that persons transporting the product know what to do in case of accident or spillage.

Section 15. Regulatory information

The product classification and SDS were developed in accordance with the HPR.

Section 16. Other information

Procedure used to prepare the classification

Classification	Justification
CORROSIVE TO METALS – Category 1 SKIN CORROSION – Category 1 EYE DAMAGE – Category 1	Bringing principles Calculation method Calculation method

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Prepared by : The research and development department of Produits Sanitaires Lépine inc.

Legend of abbreviations :

- ATE = Acute toxicity estimate
- SDS = Safety Data Sheet
- UN = United Nations
- HPR = Hazardous Products Regulations
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- TDG : Transportation of Dangerous Goods
- CAS : Chemical Abstract Services
- TWA : Time-Weighted Average
- STEL : Short-Term Exposure Limit
- IDLH : Immediately dangerous to life or health
- LC : Lethal Concentration
- LD : Lethal Dose
- EC : Effective Concentration

Notice to reader :

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