

## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

**CAS Number:** 7664-38-2 (10%)  
**Product Name:** Phosphoric Acid 10%  
**Revision Date:** Dec 18, 2018 **Date Printed:** Jan 18, 2021  
**Version:** 1.0 **Supersedes Date:** N.A.  
**Manufacturer's Name:** Thames River Chemical Corp.  
**Address:** 5230 Harvester Road Burlington, ON, CA, L7L 4X4  
**Emergency Phone:** CHEMTREC (800) 424-9300  
**Information Phone Number:** 905-681-5353  
**Fax:** 905-681-5377  
**Product/Recommended Uses:** For laboratory or industrial use only.

## SECTION 2) HAZARDS IDENTIFICATION

### Classification

Corrosive to metals - Category 1  
Eye Irritation - Category 2A  
Skin Irritation - Category 2

### Pictograms



### Signal Word

Warning

### Hazard Statements - Health

Causes serious eye irritation  
Causes skin irritation

### Hazard Statements - Physical

May be corrosive to metals

### Precautionary Statements - General

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.

### Precautionary Statements - Prevention

Keep only in original packaging.  
Wash/Wash hands thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.

### Precautionary Statements - Response

Absorb spillage to prevent material damage.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water and soap.

Specific treatment (see first-aid on the SDS).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing. And wash it before reuse.

#### Precautionary Statements - Storage

Store in a corrosive resistant container with a resistant inner liner.

#### Precautionary Statements - Disposal

No precautionary statement available.

#### Physical Hazards Not Otherwise Classified

No data available.

#### Health Hazards Not Otherwise Classified

No data available.

### SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0007732-18-5	WATER	90% - 90%
0007664-38-2	PHOSPHORIC ACID	10% - 10%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality or to reflect batch to batch variation.

### SECTION 4) FIRST-AID MEASURES

#### Inhalation

Get medical advice/attention if you feel unwell or are concerned. If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

#### Eye Contact

Immediately call a POISON CENTER/doctor. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 30 minutes or until medical aid is available. Take care not to rinse contaminated water into the unaffected eye or onto the face.

#### Skin Contact

Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash contaminated clothing before re-use. Immediately call a POISON CENTER/doctor. Rinse skin with lukewarm, gently flowing water/shower for a duration of 30 minutes or until medical aid is available.

#### Ingestion

Rinse mouth. Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

#### Most Important Symptoms and Effects, Both Acute and Delayed

No data available.

#### Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available.

### SECTION 5) FIRE-FIGHTING MEASURES

#### Suitable Extinguishing Media

Use extinguishing medium as appropriate for surrounding fire.

## Unsuitable Extinguishing Media

No data available.

## Specific Hazards in Case of Fire

Fire will produce irritating and corrosive gases.

## Fire-fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely.

## Special Protective Actions

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

## SECTION 6) ACCIDENTAL RELEASE MEASURES

### Emergency Procedure

Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.

### Recommended Equipment

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

### Personal Precautions

DO NOT get on skin, eyes or clothing. Avoid breathing vapor or mist.

### Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

### Methods and Materials for Containment and Cleaning up

Ventilate contaminated area; recover free liquid with suitable pumps; neutralise residue with soda ash, crushed limestone, cement powder or sodium bicarbonate, absorb on an inert sorbent, sweep & pick up using a plastic shovel & store in closed containers for recycling or disposal.

Keep soda ash, crushed limestone, cement powder or sodium bicarbonate on hand to neutralize any spilled material

## SECTION 7) HANDLING AND STORAGE

### General

Wash hands after use. Do not get in eyes, on skin or on clothing. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored

### Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.

### Storage Room Requirements

This product may be corrosive to metals. Keep away from all metals except resistant grades of stainless steel. Store in original containers, away from substances listed in Part 10(bellow). Store above freezing. Always ensure that containers, empty or full, are tightly sealed unless in use. Inspect containers for damage and/or leakage.

Use corrosion resistant pumps & hoses for product handling. Use special self-closing containers for small amounts. Always transfer the smallest amount you are likely to need.

Avoid creating product mist or fume. If mist of fume is created. install adequate exhaust ventilation.

Never cut, drill, weld or grind on or near this container.

## SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

### Eye protection

Wear indirect-vent, impact and splash resistant goggles when working with liquids

### Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the

concentration and amount of the dangerous substance at the specific workplace. Use an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

### Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

### Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

### 8.2 Exposure Controls

Ontario TWAEV: 1 mg/m<sup>3</sup>  
 ACGIH TLV: 1 mg/m<sup>3</sup>  
 OSHA PEL: 1 mg/m<sup>3</sup>  
 Ontario STEV: 3mg/m<sup>3</sup>  
 ACGIH STEL: 3mg/m<sup>3</sup>  
 OSHA STEL: 3mg/m<sup>3</sup>

Chemical Name	CANsmg	CANspmm	CANtmg	CANtppm	OSHA STEL (mg/m <sup>3</sup> )	OSHA STEL (ppm)	OSHA TWA (mg/m <sup>3</sup> )	OSHA TWA (ppm)
PHOSPHORIC ACID	3		1				1	

Chemical Name	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m <sup>3</sup> )	ACGIH STEL (ppm)	ACGIH TWA (mg/m <sup>3</sup> )	ACGIH TWA (ppm)	ACGIH TLV Basis
PHOSPHORIC ACID		1		3		1		URT, eye, & skin irr

Chemical Name	ACGIH Carcinogen	ACGIH Notations
PHOSPHORIC ACID		

irr - Irritation, URT - Upper respiratory tract

## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

Density	8.35 lb/gal
Specific Gravity	1.06
Appearance	Clear, colourless liquid
Odor Description	Odourless
Odor Threshold	N/A
pH	1.5 (0.1N solution)
Melting/Freezing Point	N/A
Low Boiling Point	105 °C
High Boiling Point	N/A
Flash Point	N/A
Vapor Pressure	as for water
Vapor Density	3.5 (theoretical-for phosphoric acid solid)
Evaporation Rate	as for water
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Water Solubility	Soluble in water
Coefficient Water/Oil	N/A
Viscosity	N/A

## SECTION 10) STABILITY AND REACTIVITY

### Reactivity

Dangerously Reactive with Alkalies.  
Also reactive with some metals, releasing flammable hydrogen gas

### Stability

Stable under normal storage and handling conditions.

### Conditions to Avoid

No data available

### Hazardous Reactions/Polymerization

Hazardous polymerization will not occur.

### Incompatible Materials

No Data Available

### Hazardous Decomposition Products

No data available.

## SECTION 11) TOXICOLOGICAL INFORMATION

### Acute Toxicity

LD50 mouse(oral): 12,500 mg/kg, 35,000 mg/kg (rat)  
LD50 Rabbit (skin): 12,600 mg/kg also 27,400 mg/kg (rabbit)  
LC50 mouse (Inhalation); 255 mg/m<sup>3</sup> also 2130 mg/m<sup>3</sup> (rat)

### Aspiration Hazard

Based on available data, the classification criteria are not met.

### Carcinogenicity

This product is not listed as a carcinogen

### Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

### Reproductive Toxicity

Based on available data, the classification criteria are not met.

### Respiratory/Skin Sensitization

Mist or fume irritates respiratory track, causing coughing, wheezing

0007664-38-2 PHOSPHORIC ACID

May cause drying and cracking of the skin.

### Serious Eye Damage/Irritation

Causes serious eye irritation

0007664-38-2 PHOSPHORIC ACID

Can irritate and burn the eyes.

### Skin Corrosion/Irritation

Causes skin irritation

### Specific Target Organ Toxicity - Repeated Exposure

No data available.

### Specific Target Organ Toxicity - Single Exposure

0007664-38-2 PHOSPHORIC ACID

Can irritate the nose and throat causing coughing and wheezing.

### Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

## Potential Health Effects - Miscellaneous

0007664-38-2 PHOSPHORIC ACID

Ingestion may cause any of the following: burns to mouth and stomach. Inhalation of vapor may cause any of the following: burns to respiratory system. Skin or eye contact may cause any of the following: burns.

0007664-38-2 PHOSPHORIC ACID

LC50 (mouse): 25.5 mg/m<sup>3</sup> (duration of exposure not specified) (4)

LD50 (oral, rat): 3500 mg/kg (85% aqueous solution); 4200 mg/kg (80% aqueous solution)

## SECTION 12) ECOLOGICAL INFORMATION

### Toxicity

Aquatic Toxicity:

LC50 (Fish, 96h): ph+3.0-3.25(Lepomis macrochirus), 138 mg/l (Gambusia affinis), 75 mg/l (Oryzias latipes)

EC50 (Algae)> 100 mg/l (Desmodesmus subspicatus), 75-8 mg/l (Pseudokirchneriella subcapitata)

EC50 (Bacteria 270 mg/l (activated sludge)

### Mobility in Soil

Water soluble, may move readily in environment OR may precipitate on contact with carbonates.

### Bio-accumulative Potential

This material is not expected to bioaccumulate.

### Persistence and Degradability

Inorganic substance: cannot biodegrade.

### Other Adverse Effects

No data available.

## SECTION 13) DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods

Waste management should be in full compliance with federal, state and local laws.

### Waste Disposal

It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

## SECTION 14) TRANSPORT INFORMATION

	Transport Canada Information	U.S. DOT Information
UN number:	UN1805	UN1805
Proper shipping name:	Phosphoric acid solution	Phosphoric acid solution
Hazard class:	8	
Hazard class:		8
Packaging group:	III	III
Hazardous substance (RQ):		No Data Available
Marine Pollutant:	No Data Available	No Data Available
Note / Special Provision:	Note / Special Provision	No Data Available
Toxic-Inhalation Hazard:		No Data Available

Transport in bulk (according to Annex II of MARPOL 73/78):	No Data Available	
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## SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0007732-18-5	WATER	90% - 90%	DSL,TSCA,EU_EC_Inventory
0007664-38-2	PHOSPHORIC ACID	10% - 10%	DSL,TSCA,EU_EC_Inventory

## SECTION 16) OTHER INFORMATION

### Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANTppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

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