CHEMSTREAM

CWT-375

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard
29 CFR 1910.1200 (HAZCOM 2012 - GHS)

1. Identification of the substance & the company

Product identifier CWT-375

Synonym(s) Monophosphoric acid, orthophosphoric acid

Supplier
Chemstream, Inc.
511 Railroad Ave
Homer City, PA 15748
724-915-8388

Emergency Telephone Chemtrec: (800) 424-9300

2. Hazards identification

GHS classification

Met. Corr 1	H290 May be corrosive to metals
Acute Tox. 4	H302 Harmful if swallowed
Skin Corr. 1B	H314 Causes severe skin burns and eye damage
Eye Damage 1	H318 Causes serious eye damage

Signal Word DANGER

Hazard statements
H290 - May be corrosive to metals
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage

Precautionary statements
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/physician
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

3. Composition / information on ingredients

Components	CAS No.	Weight %
Phosphoric acid	7664-38-2	30 - 95

4. First-aid measures

Eye contact

Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.

Skin contact

Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before reuse. Get medical attention if irritation occurs.

Inhalation

In case of inhalation, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

Ingestion

If swallowed, wash mouth thoroughly with plenty of water. Get medical attention immediately.

NOTE: Never give an unconscious person anything to drink

DO NOT INDUCE VOMITING

Most important symptoms and effects, acute or delayed

Harmful if swallowed
Causes severe skin burns and eye damage Causes serious eye damage

Notes to the physician

Treat symptomatically and supportively.
If swallowed, gastric irrigation. Medical supervision for at least 48 hours

5. Fire - fighting measures

Suitable extinguishing media

Use extinguishing media appropriate to surrounding fire conditions: Water spray, carbon dioxide (CO_2), dry chemical powder or appropriate foam.

Extinguishing media not to be used

Do not use water jet.

Unusual fire and explosion hazards

When heated to decomposition, may release poisonous and corrosive fumes of phosphorus oxides, Phosphoric acids

Fire fighting procedure

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Acid resistant clothing.

6. Accidental release measures

Personal precautions

Wear appropriate safety clothing and eye/face protection (see Section 8).

Methods for cleaning up

Soak up with sand or other suitable absorbent and dispose of as solid waste. Collect in suitable and properly labeled containers. Ventilate area and wash spill site after material pickup is complete. Neutralize with lime or soda ash and flush

with plenty of water.

Environmental precautions Prevent product from entering drains, ditches and rivers.

7. Handling and storage

Handling Keep containers tightly closed. Avoid bodily contact.

Storage Store in a dry, well-ventilated area
away from incompatible materials (see "materials to avoid").

8. Exposure controls / personal protection

Exposure Limits :

Components	ACGIH-TLV Data	Korea OEL	OSHA (PEL) Data
Phosphoric acid 7664-38-2	1 mg/m³ STEL: 3 mg/m³	Not determined	1 mg/m³

Ventilation requirements Ventilation must be sufficient to maintain atmospheric concentration below recommended exposure limit.

Personal protective equipment:

- **Respiratory protection** NIOSH/MSHA approved respiratory protection is recommended for use in airborne concentrations exceeding exposure limits.
A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator`s use.
- **Hand protection** Protective gloves
- **Eye protection** Wear chemical goggles, a face shield, and if necessary, a full face respirator when conditions warrant or exceed the Occupation Exposure Limit. Refer to U.S. OSHA regulations 29 CFR 1910.133 or European Standard EN 166
- **Skin and body protection** Body covering clothes and boots.

Hygiene measures Do not eat, smoke or drink where material is handled, processed or stored. Wash hands thoroughly after handling and before eating or smoking. Safety shower and eye bath should be provided.

9. Physical and chemical properties

Appearance syrupy liquid
Color Colorless
Odor Odorless.
Odor threshold Not determined
pH 1 @ 20°C. (calculated)
Melting point/range Not determined
Boiling point/range 75%: 135, 80%: 144, 85%: 154, 95%: 202 °C
Freezing point/range 75%: -17.5, 80%: 4.6, 85%: 21.1, 95%: 24.7 1°C
Flash point >250°F Not flammable
Evaporation rate (ether=1) Not determined
Flammability (solid, gas) Not determined

Vapor pressure	0.0285mmHg @ 20°C (acid 100%)
Density	1.575 g/cm³ @ 20°C
Solubility:	
- Solubility in water	Completely miscible
Partition coefficient (n-octanol/water)	
Log Pow : -2. (calculated)	
Auto-ignition temperature	Not self-ignitable
Decomposition temperature	Not determined
Viscosity	12 mPas (25°C)
Ignition temperature	Not applicable
Explosive properties	Not explosive
Oxidizing properties	None

10. Stability and reactivity

Reactivity	No reactive hazards known/expected.
Stability	Stable under normal conditions
Possibility of hazardous reactions	Reacts with: alkalies, base metals forming hydrogen
Conditions to avoid	None.
Materials to avoid	Mild Steel and Aluminum. sulfides and sulfites alkalies, strong bases
Hazardous decomposition products	Phosphorus oxides.

11. Toxicological information

Toxicity	The following data refer to phosphoric acid 85%.
Acute toxicity:	
- Rat oral LD50	3500 mg/kg
- Rabbit dermal LD50	>1260 mg/kg
Skin corrosion/irritation	Causes severe skin burns
Serious eye damage/ irritation	Causes serious eye damage
Respiratory or skin sensitisation	Does not meet classification criteria
Mutagenicity	Phosphoric acid has produced no genetic changes in standard tests using bacterial cells
Carcinogenicity	Not established
Reproductive toxicity	No data.
Developmental toxicity	No data available

Specific Target Organ Toxicity (STOT) - Single exposure No data

Specific Target Organ Toxicity (STOT) - Repeat exposure No data

12. Ecological information

Aquatic toxicity	Phosphoric acid is practically nontoxic to one species of freshwater fish. No toxicity data was located for other freshwater species, algae, or Daphnia magna in a search of the available scientific literature
- 96 Hour-LC50, Fish	138 mg/L (Mosquitofish)
- 48 Hour-EC50, Daphnia magna	> 100 mg/L EC50 (72 h) > 100 mg/L (desmodesmus subspicatus)
- NOEC	56 mg/L (daphnia magna) 100 mg/L (desmodesmus subspicatus)
Bioaccumulative potential	Not expected to bioaccumulate.
Mobility in soil	No data
Note:	Does not meet the criteria for PBT or vPvB assessment (inorganic substance)

13. Disposal considerations

Waste disposal	Observe all federal, state and local environmental regulations when disposing of this material
Disposal of Packaging	Dispose of in a safe manner in accordance with local/national regulations.

14. Transportation information

UN No. 1805

IMDG
Label: CORROSIVE (8)
Packing Group: III
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

15. Regulatory information

USA	Reported in the EPA TSCA Inventory.
Canada	Listed in DSL
EU	Reported in EINECS
Australia	Listed in AICS
China **- China inventory**	Listed in IECSC

Japan	Listed in ENCS Listed in ISHL
Korea	listed in KECI
Mexico	Listed in the National Inventory of Chemical Substances (INSQ).
New Zealand Inventory	Listed in NZIoC
Philippines	Listed in PICCS
Taiwan	Listed (TCSI)
Vietnam	Listed
Thailand	Listed

16. Other information

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End of safety data sheet