

Safety Data Sheet



Section 1: Identification

Product identifier

Product Name • pHertigation 0-12-0

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Soil nutrient

Details of the supplier of the safety data sheet

Manufacturer • Source to Source, a TAP Family Company
3233 South "I" Street
Tulare, CA 93274
United States

Telephone (General) • 559-686-4425

Telephone (General) • 866-727-4572 - Toll Free

Emergency telephone number

Manufacturer • 1-800-424-9300 - CHEMTREC - U.S. Canada, Puerto Rico - 24 Hrs.

Section 2: Hazard Identification

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 • Skin Corrosion 1B - H314
Serious Eye Damage 1 - H318

Label elements

OSHA HCS 2012

DANGER



Hazard statements • Causes severe skin burns and eye damage. - H314
Causes serious eye damage - H318

Precautionary statements

Prevention • Do not breathe mist/vapours/spray. - P260
Wash thoroughly after handling. - P264
Wear protective gloves/protective clothing/eye protection/face protection. - P280

Response • IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P304+P340

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. - P303+P361+P353

Wash contaminated clothing before reuse. - P363

Specific treatment, see supplemental first aid information. - P321

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338

Immediately call a POISON CENTER or doctor/physician. - P310

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. - P301+P330+P331

Storage/Disposal • Store locked up. - P405

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Phosphoric acid	CAS:7664-38-2	21.0%	Ingestion/Oral-Rat LD50 • 1.25 g/kg Inhalation-Rat LC50 • 25.5 mg/m ³	OSHA HCS 2012: Skin Corr. 1C; Eye Dam. 1; Acute Tox. 4 (oral)	NDA
Natural amines & organic acids	NDA	29.6%	NDA	OSHA HCS 2012: Not Classified	NDA
Inert ingredients	NDA	59%	NDA	OSHA HCS 2012: Not Classified	NDA
Plant extract solution	NDA	13.69%	NDA	OSHA HCS 2012: Not Classified	NDA

Section 4: First-Aid Measures

Description of first aid measures

- Inhalation** • Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If signs/symptoms continue, get medical attention.
- Skin** • For minor skin contact, avoid spreading material on unaffected skin. Remove and isolate contaminated clothing. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If signs/symptoms continue, get medical attention.
- Eye** • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.
- Ingestion** • If swallowed, rinse mouth with water (only if the person is conscious) Do NOT induce vomiting. Obtain medical attention immediately if ingested.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

- Notes to Physician**
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media • In case of fire use media as appropriate for surrounding fire.

Unsuitable Extinguishing Media • No data available

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Containers may explode when heated.

Hazardous Combustion Products • Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Advice for firefighters

- 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. Wear positive pressure self-contained breathing apparatus (SCBA).
SMALL FIRES: Move containers from fire area if you can do it without risk.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions • Wear appropriate personal protective equipment, avoid direct contact. Do not walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate enclosed areas.

Emergency Procedures • As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Do not get water inside container. Stop leak if you can do it without risk.

Environmental precautions

- Do not contaminate any watercourse or other body of water by direct application, disposal, or cleaning of equipment.

Methods and material for containment and cleaning up

Containment/Clean-up Measures • Cautiously neutralize spilled liquid. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
LARGE SPILLS: Dike far ahead of spill for later disposal.

Section 7 - Handling and Storage

Precautions for safe handling

Handling • Handle and open container with care. Use only with adequate ventilation. Use caution when combining with water; DO NOT add water to corrosive liquid, ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. Avoid contact with skin, eyes, and clothing. Wear appropriate personal protective equipment, avoid direct contact. Use only acid compatible equipment, pumps, seals, meters, nozzles, etc., due to the corrosive nature of this material. Due to the acidic formulation of this material, chemical residues and mineral build-up in application equipment may be dislodged during initial tank mixing. Use only thoroughly rinsed, clean equipment. Rinse all application equipment thoroughly each day, directly

after use and add a neutralizing solution such as soda ash, baking soda or solution grade limestone to avoid damage to the equipment. If the addition of water is necessary to increase the volume of the mechanical application, the corrosivity of the material will greatly increase and the blended material should be applied as quickly as possible.

Conditions for safe storage, including any incompatibilities

- Storage**
- This material should not be stored in aluminum or mild steel containers, or used in application equipment that has brass, copper, nylon, PVC or any components containing alloys in the fittings or nozzles. Keep container/package tightly closed in a cool, well-ventilated place. Store locked up. Do not store product that has been mixed with water. Over prolonged periods of storage, mild agitation may be required.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Phosphoric acid (7664-38-2)	TWAs	1 mg/m3 TWA	1 mg/m3 TWA	1 mg/m3 TWA
	STELs	3 mg/m3 STEL	3 mg/m3 STEL	Not established

Exposure controls

- Engineering Measures/Controls**
- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

- Respiratory**
- Follow the OSHA respirator regulations found in 29 CFR 1910.134. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or symptoms are experienced.

- Eye/Face**
- Wear eye/face protection - safety goggles, - face shield.

- Skin/Body**
- Wear appropriate gloves. Wear protective clothing

- General Industrial Hygiene Considerations**
- Safety devices and protective equipment should be made from materials such as synthetic rubber or non-nylon plastic. This material will damage clothing made of nylon, cotton, leather or natural rubber.

- Environmental Exposure Controls**
- Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

STEL = Short Term Exposure Limits are based on 15-minute exposures

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Dark brown liquid with a slightly fermented odor.
Color	Brown	Odor	Slightly fermented odor.
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point	No data available
Decomposition Temperature	No data available	pH	0.81
Specific Gravity/Relative Density	1.114 Water=1	Water Solubility	Soluble
Viscosity	No data available		

Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Excess heat. Incompatible materials.

Incompatible materials

- Strong alkalis. Strong oxidizers.

Hazardous decomposition products

- High temperatures will liberate phosphorus oxides. Ammonia, Oxides of Nitrogen and Oxides of Carbon.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
Phosphoric acid (21%)	7664-38-2	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1.25 g/kg; <i>Lungs, Thorax, or Respiration:Acute pulmonary edema; Liver:Changes in liver weight</i> ; Inhalation-Rat LC50 • 25.5 mg/m ³ ; <i>Lungs, Thorax, or Respiration:Acute pulmonary edema; Liver:Changes in liver weight</i>

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012•No data available
Aspiration Hazard	OSHA HCS 2012•No data available
Carcinogenicity	OSHA HCS 2012•No data available
Germ Cell Mutagenicity	OSHA HCS 2012•No data available
Skin corrosion/Irritation	OSHA HCS 2012•Skin Corrosion 1C
Skin sensitization	OSHA HCS 2012•No data available
STOT-RE	OSHA HCS 2012•No data available
STOT-SE	OSHA HCS 2012•No data available
Toxicity for Reproduction	OSHA HCS 2012•No data available
Respiratory sensitization	OSHA HCS 2012•No data available
Serious eye damage/Irritation	OSHA HCS 2012•Serious Eye Damage 1

Route(s) of entry/exposure • Inhalation, Skin, Eye, Ingestion

Potential Health Effects

Inhalation

Acute (Immediate)

- May cause corrosive burns - irreversible damage.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

Skin

Acute (Immediate)

- Causes severe skin burns and eye damage.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Eye

Acute (Immediate)

- Causes serious eye damage.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Ingestion

Acute (Immediate)

- May cause irreversible damage to mucous membranes.

Chronic (Delayed)

- Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

Section 12 - Ecological Information

Toxicity

- Material data lacking.

Persistence and degradability

- Material data lacking.

Bioaccumulative potential

- Material data lacking.

Mobility in Soil

- Material data lacking.

Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
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DOT	UN1760	Corrosive liquid, n.o.s., (phosphoric acid solution)	8	II	NDA
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Special precautions for user

• None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

• (RQ): Phosphoric Acid = 5000 lb (2270 kg)

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

• Acute

State Right To Know				
Component	CAS	MA	NJ	PA
Phosphoric acid	7664-38-2	Yes	Yes	Yes

Inventory		
Component	CAS	TSCA
Phosphoric acid	7664-38-2	Yes

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

•Phosphoric acid 7664-38-2 Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

•Phosphoric acid 7664-38-2 Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

•Phosphoric acid 7664-38-2 Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

•Phosphoric acid 7664-38-2 5000 lb final RQ; 2270 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

•Phosphoric acid 7664-38-2 Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

•Phosphoric acid 7664-38-2 Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

•Phosphoric acid 7664-38-2 Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

•Phosphoric acid 7664-38-2 Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

•Phosphoric acid 7664-38-2 Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

•Phosphoric acid 7664-38-2 Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

•Phosphoric acid 7664-38-2 Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

•Phosphoric acid 7664-38-2 Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

•Phosphoric acid 7664-38-2 Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

•Phosphoric acid 7664-38-2 Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

•Phosphoric acid 7664-38-2 Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

•Phosphoric acid
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
•Phosphoric acid

7664-38-2

7664-38-2 Not Listed

Section 16 - Other Information

- Last Revision Date** • 12/27/2017
- Preparation Date** • 05/06/2015
- Disclaimer/Statement of Liability** • Reasonable care has been taken in the preparation of this information, but the supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Safety Data Sheet before handling product.

Key to abbreviations

NDA = No data available
