1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer

PROFILE Products, LLC
750 LAKE COOK ROAD
SUITE 440
BUFFALO GROVE, IL 60089

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Product Name: Aqua-pHix®
Revision Date: 1/1/2017
SDS Number: CON001
Common Name: N.A.
Product Use: Soil and Water Acidifier

2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 1 B
Health, Serious Eye Damage/Eye Irritation, 2 A

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: DANGER

GHS Hazard Pictograms:

GHS Hazard Statements:

H314 - Causes severe skin burns and eye damage
H319 - Causes serious eye irritation

GHS Precautionary Statements:

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P280 - Wear protective gloves/eye protection.
P264 - Wash thoroughly after handling.
P260 - Do not breathe mist/vapours/spray.
P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338 - IF IN EYES: Rinse continuously 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+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Hazards not Otherwise Classified (HNOC) or not Covered by GHS

Inhalation:	Mists may be irritating to breathing passages.
Skin Contact:	May cause irritation from repeated exposure.
Eye Contact:	Irritating to eyes. No chronic effects known.

NFPA: Health = 2, Fire = 0, Reactivity = 1, Specific Hazard = n/a

3 COMPOSITION/INFORMATION OF INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
7647010	<10%	Hydrogen chloride
7664382	<10%	Phosphoric acid
144627	<10%	Oxalic acid

4 FIRST AID MEASURES

Inhalation: Supply fresh air; consult doctor in case of complaints.

Skin Contact: Immediately remove any clothing soiled by the product. Immediately rinse with water. If skin irritation continues, consult a doctor.

Eye Contact: Protect unharmed eye. Rinse opened eye for several minutes under running water. Remove contact lenses if worn. Rinse opened eye for several minutes under running water. Then consult a doctor.

Ingestion: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

5 FIRE FIGHTING MEASURES

5.1 Extinguishing media

· **Suitable extinguishing agents:**

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** Limestone powder

Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Hydrogen chloride (HCl)

Carbon monoxide (CO)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Advice for firefighters

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information** Cool endangered receptacles with water spray.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions: Dilute with plenty of water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Clean the affected area carefully; suitable cleaners are:

Warm water

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 HANDLING AND STORAGE

Handling Precautions:

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Open and handle receptacle with care.
· Information about fire - and explosion protection: No special measures required.

Storage Requirements:

· Requirements to be met by storerooms and receptacles:
Store in a cool location.
Store only in the original receptacle.
Unsuitable material for receptacle: steel.
Unsuitable material for receptacle: aluminium.
· Information about storage in one common storage facility:
Store away from foodstuffs.
Do not store together with alkalis (caustic solutions).
Store away from oxidizing agents.
· Further information about storage conditions:
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Store in a cool place.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls:

8.1 Control parameters
· Ingredients with limit values that require monitoring at the workplace:
7647-01-0 hydrochloric acid
IOELV (EU) Short-term value: 15 mg/m³, 10 ppm, Long-term value: 8 mg/m³, 5 ppm
PEL (USA) Short-term value: C 7 mg/m³, C 5 ppm
REL (USA) Short-term value: C 7 mg/m³, C 5 ppm
TLV (USA) Short-term value: C 2,98 mg/m³, C 2 ppm
EL (Canada) Short-term value: C 2 ppm

7664-38-2 phosphoric acid
IOELV (EU) Short-term value: 2 mg/m³, Long-term value: 1 mg/m³
PEL (USA) 1 mg/m³
REL (USA) Short-term value: 3 mg/m³, Long-term value: 1 mg/m³
TLV (USA) Short-term value: 3 mg/m³, Long-term value: 1 mg/m³
EL (Canada) Short-term value: 3 mg/m³, Long-term value: 1 mg/m³
EV (Canada) Short-term value: 3 mg/m³, Long-term value: 1 mg/m³

144-62-7 oxalic acid
IOELV (EU) 1 mg/m³
PEL (USA) 1 mg/m³
REL (USA) Short-term value: 2 mg/m³, Long-term value: 1 mg/m³
TLV (USA) Short-term value: 2 mg/m³, Long-term value: 1 mg/m³
EL (Canada) Short-term value: 2 mg/m³, Long-term value: 1 mg/m³
EV (Canada) Short-term value: 2 mg/m³, Long-term value: 1 mg/m³

Personal Protective Equipment:

Personal protective equipment:
· General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
· Respiratory protection:
Use suitable respiratory protective device in case of insufficient ventilation.
Use suitable respiratory protective device when aerosol or mist is formed.
· Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be
checked prior to the application.
· Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to
be observed.
· For the permanent contact gloves made of the following materials are suitable:
Fluorocarbon rubber (Viton)
Butyl rubber, BR
Nitrile rubber, NBR
· Not suitable are gloves made of the following materials: PVA gloves
· Eye protection:
Contact lenses should not be worn.
Safety glasses
Goggles recommended during refilling
· Body protection: Acid resistant protective clothing
· Limitation and supervision of exposure into the environment No special requirements.
· Risk management measures See Section 7 for additional information.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless liquid		
Physical State:	Liquid	**Odor:**	Acrid
Odor Threshold:	Not Determined	**Solubility:**	Fully miscible.
Boiling Point:	100 °C (212 °F) (Approx.)	**Freezing/Melting Pt.:**	Undetermined
Flammability:	Not applicable.	**Flash Point:**	Not applicable - does not support sustain
Vapor Pressure:	N.A.	**Auto-Ignition Temp:**	Not determined.
pH:	< 2.0 (acidic) (Estimate)		
Decomp Temp:	Not determined.		

10 STABILITY AND REACTIVITY

Conditions to Avoid:	Store away from oxidizing agents.
Materials to Avoid:	Warning! Do not use together with other products. May release dangerous gases (chlorine).
Hazardous Decomposition:	Phosphoric acids Phosphorus compounds Carbon monoxide and carbon dioxide Hydrogen chloride (HCl)
Hazardous Polymerization:	Reacts with alkali (lyes). Develops corrosive gases/fumes. Develops toxic gases/fumes. Reacts with metals forming hydrogen. Corrosive action on metals. Reacts with amines.

11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

7647-01-0 hydrochloric acid

Oral LD50 900 mg/kg (rabbit)

144-62-7 oxalic acid

Oral LD50 375 mg/kg (rat)

· **Primary irritant effect:**

· **on the skin:** Caustic effect on skin and mucous membranes.

· **on the eye:** Strong caustic effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

· **Aquatic toxicity:** The product contains materials that are harmful to the environment.
· **Persistence and degradability** The organic portion of the product is biodegradable.
· **Bioaccumulative potential** Does not accumulate in organisms
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
At present there are no ecotoxicological assessments.
This statement was deduced from the properties of the single components.
Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.
Water Hazard Class (Self-classification) in the concentrate.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Must not reach sewage water or drainage ditch undiluted or unneutralized.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low waterdangerous.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods-
· Recommendation:
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
· Uncleaned packaging:
· Recommendation: Disposal must be made according to official regulations.
· Recommended cleansing agents: Water only.

14 TRANSPORT INFORMATION

15 REGULATORY INFORMATION

Component (CAS#) [%] - CODES

RQ(5000LBS), Hydrogen chloride (7647010) [<10%] CERCLA, CSWHS, EHS302, EPCRAWPC, HAP, MASS, NJEHS, NJHS, OSHAPSM, OSHAWAC, PA, SARA313, TSCA, TXAIR

RQ(5000LBS), Phosphoric acid (7664382) [<10%] CERCLA, CSWHS, EPCRAWPC, MASS, NJHS, OSHAWAC, SARA313, TSCA, TXAIR

Oxalic acid (144627) [<10%] MASS, OSHAWAC, PA, TSCA, TXAIR

Regulatory CODE Descriptions

RQ = Reportable Quantity
CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
EHS302 = Extremely Hazardous Substance
EPCRAWPC = EPCRA Water Priority Chemicals
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
NJEHS = NJ Extraordinarily Hazardous Substances
NJHS = NJ Right-to-Know Hazardous Substances
OSHAPSM = OSHA Chemicals Requiring process safety management
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
SARA313 = SARA 313 Title III Toxic Chemicals
TSCA = Toxic Substances Control Act
TXAIR = TX Air Contaminants with Health Effects Screening Level

COMPONENT / (CAS/PERC) / CODES

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*Hydrogen chloride (7647010 10-20%) CERCLA, CSWHS, EHS302, EPCRAWPC, HAP, MASS, NJEHS, NJHS, OSHAPSM, OSHAWAC, PA, SARA313, TXAIR, SARA355

*Phosphoric acid (7664382 10-20%) CERCLA, CSWHS, EPCRAWPC, MASS, NJHS, OSHAWAC, SARA313, TXAIR

*Oxalic acid (144627 <5%) MASS, OSHAWAC, PA, TXAIR

*Hydrochloric acid (7647010 <10%) CERCLA, CSWHS, EHS302, EPCRAWPC, HAP, MASS, NJEHS, NJHS, OSHAPSM, OSHAWAC, PA, SARA313, TSCA, TXAIR

REGULATORY KEY DESCRIPTIONS

MASS = MA Massachusetts Hazardous Substances List
NRC = Nationally Recognized Carcinogens
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
TXAIR = TX Air Contaminants with Health Effects Screening Level
CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
EHS302 = Extremely Hazardous Substance
EPCRAWPC = EPCRA Water Priority Chemicals
HAP = Hazardous Air Pollutants
NJEHS = NJ Extraordinarily Hazardous Substances
NJHS = NJ Right-to-Know Hazardous Substances
OSHAPSM = OSHA Chemicals Requiring process safety management
SARA313 = SARA 313 Title III Toxic Chemicals
SARA355 = SARA Section 355 - Extremely Hazardous Substances

TSCA = Toxic Substances Control Act

16 OTHER INFORMATION

Disclaimer:
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