

SAFETY DATA SHEET

Issuing Date 06-Aug-2013

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Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name Equipment Descaler

Other means of identification

Product Code(s) WA-EQU

UN-Number UN1805

Synonyms Equipment Hard Water Descaler

Recommended use of the chemical and restrictions on use

Recommended Use Industrial and Institutional Equipment Descaler

Uses advised against No information available

Supplier's details

Supplier Address

WATERMark Solutions
3637 W. Roanoke, Ste. 8
Phoenix, AZ 85009 - USA
T (623) 326-7945

Emergency telephone number

Emergency Telephone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Skin Corrosion/Irritation	Category 1 Subcategory 1B
Serious Eye Damage/Eye Irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word Danger
Hazard Statements
• Causes severe skin burns and eye damage

**Appearance** Clear, Green**Physical State** Liquid.**Odor** Characteristic, Acidic**Precautionary Statements****Prevention**

- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection.

General Advice

- Immediately call a POISON CENTER or doctor/physician.

Eyes

- 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 doctor/physician.

Skin

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse.

Inhalation

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

Ingestion

- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Storage

- Store locked up.

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Synonyms**

Equipment Hard Water Descaler

Chemical Name	CAS-No	Weight %	Trade secret
Phosphoric acid	7664-38-2	30-60	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**Description of necessary first-aid measures**

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.
Skin Contact	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. Seek immediate medical attention/advice.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.
Ingestion	Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician if necessary

Most important symptoms/effects, acute and delayed**Most Important Symptoms/Effects** No information available.**Indication of immediate medical attention and special treatment needed, if necessary****Notes to Physician** Treat symptomatically.**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None**Specific Hazards Arising from the Chemical**

No information available

Explosion Data**Sensitivity to Mechanical Impact** None.**Sensitivity to Static Discharge** None**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal Precautions** Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Use personal protective equipment.**Environmental Precautions****Environmental Precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information**Methods and materials for containment and cleaning up****Methods for Containment** Prevent further leakage or spillage if safe to do so.**Methods for Cleaning Up** Neutralize with soda ash or sodium bicarbonate over area of spill. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Dispose of promptly. Clean contaminated surface thoroughly.**7. HANDLING AND STORAGE**

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not take internally. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products Fluorine. Strong oxidizing agents. Strong reducing agents. Bases. Metals.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Phosphoric acid 7664-38-2	STEL: 3 mg/m ³ TWA: 1 mg/m ³	TWA: 1 mg/m ³ (vacated) TWA: 1 mg/m ³ (vacated) STEL: 3 mg/m ³	IDLH: 1000 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection Chemical splash goggles.
Skin and Body Protection Impervious clothing. Impervious gloves.
Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid
Odor Characteristic, Acidic
Appearance Clear Green
Odor Threshold No information available

Property	Values	Remarks/ - Method
pH	< 1	None known
Melting Point/Range	No data available	None known
Boiling Point/Boiling Range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	No data available	
lower flammability limit	No data available	
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	No data available	None known
Specific Gravity	No data available.	None known

Water Solubility	Soluble in water.	None known
Solubility in other solvents	Insoluble.	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known

Flammable Properties Not flammable

Explosive Properties No data available

Oxidizing Properties No data available

Other information

VOC Content (%) No data available

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Incompatible products.

Incompatible materials

Fluorine. Strong oxidizing agents. Strong reducing agents. Bases. Metals.

Hazardous decomposition products

Phosphorous oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation

May cause irritation of respiratory tract.

Eye Contact

Corrosive to the eyes and may cause severe damage including blindness.

Skin Contact

Causes severe skin burns.

Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization No information available.

Mutagenic Effects	No information available.
Carcinogenicity	Contains no ingredient listed as a carcinogen.
Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration Hazard	No information available.

Numerical measures of toxicity - Product

The following values are calculated based on chapter 3.1 of the GHS document:

LD50 Oral	3058 mg/kg; Acute toxicity estimate
LD50 Dermal	5457 mg/kg; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Phosphoric acid 7664-38-2		LC50: 3 - 3.5 mg/L Gambusia affinis 96 h		EC50 12 h: = 4.6 mg/L (Daphnia magna)

Persistence and Degradability No information available.

Bioaccumulation No information available.

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with local regulations.

Contaminated Packaging Do not re-use empty containers.

Chemical Name	California Hazardous Waste
Phosphoric acid	Corrosive

14. TRANSPORT INFORMATION

DOT

UN-Number	UN1805
Proper shipping name	Phosphoric acid solution
Hazard Class	8
Packing Group	III
Reportable Quantity (RQ)	Phosphoric acid: RQ kg= 4537.73
Description	UN1805, Phosphoric acid solution, 8, III, RQ
Emergency Response Guide Number	154

TDG

UN-Number	UN1805
Proper Shipping Name	Phosphoric acid, solution
Hazard Class	8
Packing Group	III
Description	UN1805, Phosphoric acid, solution, 8, III

UN-Number	UN1805
Proper Shipping Name	Phosphoric acid solution

Hazard Class	8
Packing Group	III
Description	UN1805, Phosphoric acid solution, 8, III

ICAO

UN-Number	UN1805
Proper shipping name	Phosphoric acid solution
Hazard Class	8
Packing Group	III
Description	UN1805, Phosphoric acid solution, 8, III

IATA

UN-Number	UN1805
Proper Shipping Name	Phosphoric acid, solution
Hazard Class	8
Packing Group	III
ERG Code	8L
Description	UN1805, Phosphoric acid, solution, 8, III

IMDG/IMO

UN-Number	UN1805
Proper Shipping Name	Phosphoric acid solution
Hazard Class	8
Packing Group	III
EmS No.	F-A, S-B
Description	UN1805, Phosphoric acid solution, 8, III

UN-Number	UN1805
Proper Shipping Name	Phosphoric acid, solution
Hazard Class	8
Packing Group	III
Classification Code	C1
Description	UN1805, Phosphoric acid, solution, 8, III

ADR

UN-Number	UN1805
Proper Shipping Name	Phosphoric acid, solution
Hazard Class	8
Packing Group	III
Classification Code	C1

Tunnel Restriction Code	(E)
Description	UN1805, Phosphoric acid, solution, 8, III, (E)
ADR/RID-Labels	8

Proper Shipping Name	Phosphoric acid, solution
Hazard Class	8
Packing Group	III
Classification Code	C1
Description	UN1805, Phosphoric acid, solution, 8, III
Limited Quantity	5 L

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL	Complies
EINECS	Complies
ENCS	Complies
AICS	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phosphoric acid	5000 lb			X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Phosphoric acid	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Phosphoric acid	X	X	X		X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	Health Hazard 3	Flammability 0	Instability 0	Physical and Chemical Hazards -
HMIS	Health Hazard 3	Flammability 0	Physical Hazard 0	Personal Protection X

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General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet