

pH Down Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Revision date: 15/12/2020 Supersedes: 19/06/2020 Version: 3.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture Product name : pH Down

: Water treatment chemicals Type of product

Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public

Main use category : Consumer use pH-regulating agents Use of the substance/mixture

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Growth Technology Limited Great Western Way TA2 6BX Taunton - UK T +44 (0)1823 325291

info@growthtechnology.com - www.growthtechnology.com

1.4. Emergency telephone number

: +44 (0)1823 325291 Emergency number

office hours only: Monday - Friday 0800 - 1700 (GMT/UTC)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	
United Kingdom	National Poisons Information Service Edinburgh Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0344 892 0111	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	

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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 1, Sub-Category 1B

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

Signal word (CLP)

Hazard statements (CLP)

: Danger

: H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP)

: P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

H314

P260 - Do not breathe vapours.

P264 - Wash hands thoroughly after handling.

P280 - Wear eye protection, face protection, protective clothing, protective gloves.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or 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.

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.

P310 - Immediately call a POISON CENTER or doctor.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P363 - Wash contaminated clothing before reuse.

P405 - Store locked up.

P501 - Dispose of contents and container to a hazardous or special waste collection point.

2.3. Other hazards

PBT: not relevant – no registration required vPvB: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Phosphoric acid	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	80 - 85	Skin Corr. 1B, H314

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Specific concentration limits:		
Name Product identifier		Specific concentration limits
Phosphoric acid	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	(10 ≤C < 25) Skin Irrit. 2, H315 (10 ≤C < 25) Eye Irrit. 2, H319 (25 ≤C ≤ 100) Skin Corr. 1B, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Immediately remove contaminated clothing or footwear.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial

respiration if necessary. Immediately call a POISON CENTER/doctor.

First-aid measures after skin contact : Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately

call a POISON CENTER/doctor.

First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open.

Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye

specialist.

First-aid measures after ingestion : Do not induce vomiting. Rinse mouth out with water. Immediately call a POISON

CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Causes severe skin burns and eye damage.

Symptoms/effects after inhalation : May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat

with constricting sensation of the larynx and difficulty in breathing.

Symptoms/effects after skin contact : Highly corrosive to skin. Causes severe burns.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : Contact with metals could evolve flammable hydrogen gas.

Hazardous decomposition products in case of fire : Phosphorus oxides.

5.3. Advice for firefighters

Firefighting instructions : Do not allow run-off from fire-fighting to enter drains or water courses.

Protection during firefighting : Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Do not handle until all safety precautions have been read and

understood

6.1.1. For non-emergency personnel

Protective equipment : Concerning personal protective equipment to use, see section 8.

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Emergency procedures : Do not get in eyes, on skin, or on clothing. Do not breathe mist, vapours. Only qualified

personnel equipped with suitable protective equipment may intervene.

6.1.2. For emergency responders

Protective equipment : Concerning personal protective equipment to use, see section 8.

Emergency procedures : Do not get in eyes, on skin, or on clothing. Evacuate unnecessary personnel. Stop leak if

safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Do not allow product to spread into the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak without risks if possible. For a large spillage, contain the spillage by bunding.

Methods for cleaning up : Only qualified personnel equipped with suitable protective equipment may intervene. Take up liquid spill into absorbent material. Shovel or sweep up and put in a closed container for

disposal. Clean contaminated surfaces with an excess of water. Notify authorities if product enters sewers or public waters. Small spills: Neutralise with a carbonate solution and wash

with plenty of water.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

SECTION 8. SECTION 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Do not eat, drink

or smoke when using this product. Do not breathe vapours, mist. Do not get in eyes, on skin, or on clothing. Keep only in original container. Handle and open container with care.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this

product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep out of reach of children.

Storage conditions : Keep only in original container. Keep cool.

Incompatible products : Strong bases. Oxidizing agent.

Incompatible materials : Metals.

Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

Water treatment chemicals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid (7664-38-2)	
EU - Occupational Exposure Limits	
Local name	Orthophosphoric acid
IOELV TWA (mg/m³)	1 mg/m³
IOELV STEL (mg/m³)	2 mg/m³
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC

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United Kingdom - Occupational Exposure Limits	
Local name Orthophosphoric acid	
WEL TWA (mg/m³)	1 mg/m³
WEL STEL (mg/m³)	2 mg/m³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Phosphoric acid (7664-38-2)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	2.92 mg/m³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	0.73 mg/m³

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

Materials for protective clothing:

acid-resistant protective clothing

Hand protection:

Chemical resistant gloves (according to European standard EN 374 or equivalent). Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Butyl rubber	6 (> 480 minutes)	0.5		
Reusable gloves	Polyvinylchloride (PVC)	6 (> 480 minutes)	0.5		
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.35		

Eye protection:

Protective goggles or face shield. EN 166

Skin and body protection:

acid-resistant protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear to cloudy.
Colour : Colourless.

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Odour : slight.

Odour threshold : Not applicable.

pH : <2 pH solution : <2

Relative evaporation rate (butylacetate=1) : No data available Melting point : Not applicable Freezing point : No data available Boiling point : No data available

Flash point : Not applicable (aqueous non combustible product)

Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : Not applicable
Vapour pressure : Not volatile
Relative vapour density at 20 °C : No data available

Relative density : 1.65

Density : ≈ 1.65 kg/l

Solubility : soluble in water.

Partition coefficient n-octanol/water (Log Pow) : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

Explosive properties : Not expected to be a fire/explosion hazard under normal conditions of use.

Oxidising properties : Does not meet the criteria for classification as oxidising. Explosive limits : Not applicable (aqueous non combustible product)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Oxidizing agent. Strong bases. Metals.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Phosphoric acid (7664-38-2)

LD50 oral rat 2600 mg/kg OECD 423

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LD50 dermal rabbit	2740 mg/kg
Skin corrosion/irritation :	Causes severe skin burns. pH: < 2
Serious eye damage/irritation :	Assumed to cause serious eye damage pH: < 2
Respiratory or skin sensitisation :	Not classified
Germ cell mutagenicity :	Not classified
Carcinogenicity :	Not classified
Reproductive toxicity :	Not classified

Phosphoric acid (7664-38-2)	
NOAEL (animal/male, F0/P)	≥ 500 mg/kg OECD 422

STOT-single exposure : Not classified STOT-repeated exposure : Not classified

Phosphoric acid (7664-38-2)		
3,7	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)	

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

: Before neutralisation, the product may represent a danger to aquatic organisms. Ecology - general

Hazardous to the aquatic environment, short-term

Hazardous to the aquatic environment, long-term

(chronic)

: Not classified

: Not classified

Phosphoric acid (7664-38-2)	
LC50 fish 1	138 mg/l
LC50 fish 2	3 – 3.25 mg/l
EC50 Daphnia 1	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC chronic algae	100 mg/l

12.2. Persistence and degradability

pH Down		
Persistence and degradability	Not established.	

12.3. Bioaccumulative potential

pH Down	
Bioaccumulative potential	Not applicable.

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12.4. Mobility in soil

Ecology - soil Expected to be highly mobile in soil.

12.5. Results of PBT and vPvB assessment

pH Down

PBT: not relevant - no registration required

vPvB: not relevant - no registration required

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- Product/Packaging disposal recommendations
- a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1805	UN 1805	UN 1805	UN 1805	UN 1805
14.2. UN proper shippin	g name			
PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID SOLUTION	Phosphoric acid, solution	PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID, SOLUTION
Transport document descr	iption			
UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III, (E)	UN 1805 PHOSPHORIC ACID SOLUTION, 8, III	UN 1805 Phosphoric acid, solution, 8, III	UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III	UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III
14.3. Transport hazard o	class(es)	,		
8	8	8	8	8
8	8	8	8	B
14.4. Packing group				
III	III	III	III	III
14.5. Environmental haz	ards			
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

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14.6. Special precautions for user

Overland transport

Classification code (ADR) : C1
Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions : TP1

(ADR)

Tank code (ADR) : L4BN
Tank special provisions (ADR) : TU42
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Hazard identification number (Kemler No.) : 80

Hazard identification number (Kemler No.) : 80
Orange plates :

80 1805

Tunnel restriction code (ADR) : E EAC code : 2R

Transport by sea

: 223 Special provisions (IMDG) Limited quantities (IMDG) : 5 L : E1 Excepted quantities (IMDG) Packing instructions (IMDG) : P001, LP01 IBC packing instructions (IMDG) : IBC03 Tank instructions (IMDG) : T4 Tank special provisions (IMDG) TP1 EmS-No. (Fire) : F-A EmS-No. (Spillage) S-B Stowage category (IMDG) : A

Segregation (IMDG) : SG36, SG49

Properties and observations (IMDG) : Miscible in water. Mildly corrosive to most metals.

Air transport

PCA Excepted quantities (IATA) : E1 : Y841 PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) : 1L PCA packing instructions (IATA) : 852 PCA max net quantity (IATA) : 5L CAO packing instructions (IATA) : 856 CAO max net quantity (IATA) : 60L Special provisions (IATA) : A3, A803 ERG code (IATA) : 8L

Inland waterway transport

Classification code (ADN) : C1
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : C1
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions : TP1

(RID)

Tank codes for RID tanks (RID) : L4BN

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Special provisions for RID tanks (RID) : TU42
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 80

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:			
Section	Changed item	Change	Comments
4.1	First-aid measures general	Modified	
4.2	Symptoms/effects after skin contact	Modified	
4.2	Symptoms/effects after inhalation	Modified	
4.2	Symptoms/effects	Modified	
4.2	Symptoms/effects after ingestion	Modified	
4.2	Symptoms/effects after eye contact	Modified	
4.3	Other medical advice or treatment	Other medical advice or treatment Modified	
5.2	Hazardous decomposition products in case of fire	Modified	
5.2	Explosion hazard	Added	
5.3	Firefighting instructions	Added	
5.3	Protection during firefighting	Modified	
6.1	Emergency procedures	Modified	
6.1	Protective equipment	Added	
6.1	Protective equipment	Modified	
7.1	Additional hazards when processed	Added	

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7.2	Technical measures	Added	
1.2	recillical measures	Added	
8.1	Long-term - local effects, inhalation	Added	
8.1	Long-term - local effects, inhalation	Added	
8.2	Hand protection	Modified	
8.2	Materials for protective clothing	Modified	
8.2	Respiratory protection	Modified	
8.2	Eye protection	Modified	
8.2	Appropriate engineering controls	Modified	
8.2	Skin and body protection	Modified	
12.2	Persistence and degradability	Added	
12.3	Bioaccumulative potential	Modified	
12.4	Ecology - soil	Added	
13.1	Product/Packaging disposal recommendations	Added	

Abbreviations and acror	ıyms:
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

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SDS	Safety Data Sheet	
vPvB	Very Persistent and Very Bioaccumulative	
WGK	Water Hazard Class	

Full text of H- and EUH-statements:		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Corr. 1B	H314	Expert judgment

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.