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

Product identifier

Trade name: **CANNA PH MIN BLOOM**
Synonym(s): -

Relevant identified uses of the substance or mixture and uses advised against: Liquid pH regulator.
Product category: Product Category 12 (PC12 Fertilizers), Sector of Use 21 (SU21 Consumer uses).

Details of the supplier of the safety data sheet

Manufacturer/supplier:
CANNA UK (Grow United Ltd),
3rd Floor, 207 Regent Street,
W1B 3HH, London,
United Kingdom

Tel.: +44 (0) 870 240 2991
Email: uk@canna.com

Further information obtainable from:
Contact person: N. Linton
Tel.: +31 (0) 162-68 10 70
Email: msds@canna.com
Working hours (business days): 09:00-17:00.

Emergency telephone number:
United Kingdom: UWIC: +44 (0) 29 204 16388

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification in accordance with Regulation (EC) no. 1272/2008
Skin Irrit. 2 H315
Eye Irrit. 2 H319

Label elements and precautionary statement
Hazard pictograms:

Signal word: Warning.
Hazard statements:
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Precautions:
P102 Keep out of reach of children.
P264 Wash hands thoroughly after handling.
P280 Wear eye protection.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

Hazard-determining components for labelling: Phosphoric acid 59%.

Other hazards
Void.

Results of PBT and vPvB assessment
PBT: No.
vPvB: No.

SECTION 3: Composition/information on ingredients

Chemical characterization: Mixture.
Description: Preparation based on i.a. water and phosphoric acid.

Hazardous ingredients
Phosphoric acid 59 %
CAS#: 7664-38-2
EC#: 231-633-2
REACH reg.#: 01-2119485924-24
Concentration (W/W):
5 - 10 %
Danger (100%):
1272/2008/EC: Skin Corr. 1B; H314.

Full text of each relevant H- and EUH- phrase(s) can be found in section 16.

SECTION 4: First aid measures

Description of first aid measures
General information:
Remove victim from danger zone and place in lying position.
In case of irregular breathing or respiratory arrest provide artificial respiration.
Remove immediately all contaminated clothing.
Substance is harmful to tissue after continuous contact. Rinsing immediately following exposure can limit injury.
Inhalation:
Remove the victim into fresh air, and keep at rest in a position that facilitates breathing.
If the victim is not breathing, apply artificial respiration.
Skin contact:
Wash immediately with plenty of water and soap.
Eye contact:
Remove contact lenses, if present, and immediately rinse eyes while holding eyelids open for a sufficient period of time (at least 15 minutes) with lukewarm water. Help the victim with the rinsing process. Then immediately consult a physician/ophthalmologist.
Ingestion:
Rinse mouth immediately with water (if conscious), and then drink plenty of water. Do not induce vomiting (only under the supervision of a physician) and immediately consult a physician or take victim to hospital (show physician packaging, label or SDS). Place unconscious person on the side in the recovery position. Loosen tight clothing such as a shirt collar, tie, belt or waistband. Keep at rest.

Most important symptoms and effects, both acute and delayed
Inhalation:
Exposure to vapour concentrations of component dusts higher than the MAC value can be harmful to the health. Potential health effects include: burning sensation, sore throat, coughing, difficulty breathing, shortness of breath, dyspnoea. Effects may be delayed. Prolonged inhalation of aerosol and/or mist may cause pneumonia and/or lung oedema, but only after initial corrosive effects on the mucous membranes of the eyes and/or upper airways have become manifest.

Skin contact:
Redness, burning sensation, pain, blisters, yellow discolouration. Contact with skin may cause eczema through skin damage. Contains phosphoric acid which may be absorbed through the skin.
Eye contact:
May cause irreversible damage to the eyes. Redness. Pain. Poor eyesight. Damage to the cornea. Burns.
Ingestion:
Blisters/tingling of lips, mouth and throat, stomach cramps, nausea, vomiting, diarrhoea.

Indication of any immediate medical attention and special treatment needed
Symptomatic treatment and supportive therapy as prescribed. Symptomatic treatment (decontamination, control of vital functions). No specific antidote known. To prevent pulmonary oedema from severe exposure: corticosteroid-containing dosing aerosol.

SECTION 5: Firefighting measures

Extinguishing media
Suitable extinguishing media:
CO2, extinguishing powder or water jet. Fight larger fires with water spray.
Foam.
Sand.
Adapt extinguishing measures to suit the environment.
Unsuitable extinguishing media:
Powerful water jet.

Special hazards arising from the substance or mixture
During heating or in case of fire, poisonous gases may be produced.
May be released in event of fire:
Nitrogen oxides (NOx).
Phosphorus oxides.

Advice for firefighters
Special protective clothing:
Wear self-contained breathing apparatus.

Other information
No specific requirements.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Ensure sufficient ventilation.
Wear personal protective equipment.
Keep unprotected persons at a distance.

Environmental precautions
Do not allow large quantities of product to reach sewage/surface water/groundwater in concentrated form.
Notify competent authorities in case of release of large quantities into the environment.

Methods and material for containment and cleaning up
Soak up immediately with absorbent material (sand, dry earth).
Recycle, if possible.
Collect in suitable containers for disposal.
Then flush away residue with plenty of water. Collect rinse water.

Reference to other sections
Information regarding safe handling – see section 7.

Information regarding personal protective equipment – see section 8.
Information regarding disposal – see section 13.

SECTION 7: Handling and storage

Handling

Precautions for safe handling:
Provide adequate ventilation/extraction in the workplace.
Open and handle package with care.
Avoid formation of aerosols.
When diluting always add acid to water, never the other way around.
Information about fire - and explosion protection:
Keep away from ignition sources - do not smoke.

Conditions for safe storage, including any incompatibilities

Storage:
Rinse/clean equipment prior to maintenance activities.
Ensure the safety of the tank installation to limit risks of exposure.
Regularly check the installation for correct operation.
Provide a floor-level liquid containment system or store materials in packaging in acid-proof drip-trays.
Make the content of the dip-tray equal to the content of the largest package plus 10% of the other packages.
Restrict access to the storage location to authorised personnel in case of risk of exposure.
Close containers after each use.
Handle empty containers as if they were full.
Requirements to be met by storerooms and receptacles:
Keep only in the original container.
Keep in a dark place.
Store in a frost-free environment.
Protect from heat and direct sunlight.
Suitable packaging material: Polyethylene.
Suitable material for tanks and pipelines: Stainless steel, PVC.
Information about storage in one common storage facility:
Install partitions in the drip tray to prevent acidic and alkaline fertilisers from coming into contact with one other.
Further information about storage conditions:
Keep tanks / packing hermetically closed.
Keep in a cool place.
Recommended storage temperature 10 - 30 °C.

Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

Control parameters

Ingredients with limit values that require monitoring at the workplace:		
Product information: 7664-38-2	Phosphoric acid	
TWA 8 hours TWA 15 min.	mg/m^3 (ppm)	1 (1.3) 2000/39/EC 2 (2.6) 2000/39/EC

Dangerous ingredients with DN(M)EL:				
Product information: 7664-38-2 Phosphoric acid	Exposure	Value	Unit	Population / Effects
DN(M)EL	Short-term dermal	-	mg/kg bw/day	Workers Local
DN(M)EL	Short-term	-	mg/m^3	Workers

	inhalation			Local
DN(M)EL	Long-term dermal	-	mg/kg bw/day	Workers Systemic
DN(M)EL	Long-term inhalation	-	mg/m^3	Workers Systemic
DN(M)EL	Long-term dermal	-	mg/kg bw/day	Workers Local
DN(M)EL	Long-term inhalation	2.92	mg/m^3	Workers Local
DN(M)EL	Short-term dermal	-	mg/kg bw/day	General population Local
DN(M)EL	Short-term inhalation	-	mg/m^3	General population Local
DN(M)EL	Long-term dermal	-	mg/kg bw/day	General population Systemic
DN(M)EL	Long-term inhalation	-	mg/m^3	General population Systemic
DN(M)EL	Long-term oral	-	mg/kg bw/day	General population Systemic
DN(M)EL	Long-term dermal	-	mg/kg bw/day	General population Local
DN(M)EL	Long-term inhalation	0.73	mg/m^3	General population Local

Exposure controls

Personal protective equipment:
Remove immediately all contaminated clothing.
Wash contaminated clothing before reuse.
Store protective clothing separately.
Avoid contact with the eyes and skin.
Wash hands thoroughly after handling this product.

General protective and hygienic measures:
Keep away from foodstuffs and beverages.
Do not eat, drink or smoke when using this product.
The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection:
If the workplace limit value cannot be achieved with engineering controls, workers should wear a combination filter for short-term exposures (e.g. gas filter for acid inorganic gases/vapours, EN 14387 combination filter of type B/E).

Hand protection:

Safety gloves.

The glove material (EN374) has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation (e.g. butyl rubber, PVC).

Glove material
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.

Penetration time of glove material
The exact breakthrough time can be obtained from the manufacturer of the protective gloves and has to be observed.

Eye protection:

Use close-fitting safety goggles. Eye shower. Full facemask with splash/spatter risk.

Body protection:
Wear suitable protective work clothing (in case of splash risk).

Measuring procedures:
In order to establish compliance with an exposure limit and to establish that exposure is properly controlled, it may be necessary to determine the concentration of the substances in the inhalation zone or in the general workspace.

Environmental exposure controls:
Leakage of the material and concentrated solution must be stopped. Leakage of large quantities into sewage, surface waters and groundwater must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

General information	
Appearance	
Form:	Liquid.
Colour:	Not determined.
Odour:	Not determined.
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/melting range:	Not determined.
Boiling point/boiling range:	Not determined.
Flash point:	Not determined.
Flammability (solid, gas):	Not applicable.
Auto-ignition temperature:	Not determined.
Explosion hazard:	Not determined.
Explosive limits	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not determined.
Relative density:	1.052 (water = 1).
Vapour density:	Not determined.
Evaporation rate:	Not determined.
Solubility in/miscibility with water:	Fully.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
Other information	No further relevant information available.

SECTION 10: Stability and reactivity

Reactivity

Chemical stability
The product is stable if stored and handled as prescribed.
Thermal decomposition/Conditions to be avoided:
The product is stable if used as prescribed. Avoid storing at high temperatures (> 30 °C) to prevent degradation of the material or pressure build-up. Avoid low temperatures (< 10 °C) to prevent crystallization from occurring. Material is susceptible to frost.

Possibility of hazardous reactions
Contact with strong reducing agents (and bases).

Conditions to avoid
Avoid heat, sparks, open flames, and other sources of ignition. Prevent evaporation in a non-ventilated environment. Protect against heat and direct sunlight. Protect against frost.

Incompatible materials
(Mildly) corrosive to metals. Corrodes many metals forming a combustible gas (hydrogen). Reacts violently with oxidants and many other compounds.

Hazardous decomposition products
No hazardous decomposition products are formed if stored under normal conditions. Upon heating or combustion, irritating or toxic fumes such as nitrogen oxides and phosphorus oxides may be released.

SECTION 11: Toxicological information

Information on toxicological effects
Acute toxicity from the components:

LD/LC50 values relevant for classification:		
Product information: 7664-38-2	Phosphoric acid	
Oral	LD50	2000 mg/kg (rat) (OECD 423)
Inhalation	LC50 (1 h)	3846 mg/l (rat) (OECD 403)
Dermal	LD50	2740 mg/kg (rabbit)

The following health risk assessment is based on an assessment of the various ingredients in the product.
Primary irritant effect:
on the skin:
Irritates the skin and the mucous membranes.
on the eye:
Irritant / corrosive effect.

Germ cell mutagenicity:
Not classified.
Reproductive and developmental toxicity:
Not classified.
Sensitisation:
No sensitising effects known.
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):
Not classified.
Other information:
No further relevant information available.

SECTION 12: Ecological information

Toxicology information
Ecotoxicity from the components:

Aquatic toxicity:		
Product information: 7664-38-2	Phosphoric acid	
Fish	LC100 (96 h)	3 - 3.25 mg/l (bluegill sunfish)
Water flea	EC50 (96 h)	> 100 mg/l (daphnia magna)
Algae	EC50	-
Bacteria	EC50	-

The following ecological risk assessment is based on an assessment of the various ingredients in the product.

Persistence and degradability
Partially inorganic and presumed to be partially biodegradable over the long-term.

Behaviour in environmental compartments
Bioaccumulative potential
Bioaccumulation in organisms is not expected.
Mobility in soil
No further relevant information available.

Further ecological information
General information:
Water hazard class 1 (German regulation) (Self-assessment): slightly hazardous to water. Do not discharge undiluted product into groundwater, surface water or sewage system.

Results of PBT and vPvB assessment
The mixture does not meet all of the assessment criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

Other adverse effects
No data.

SECTION 13: Disposal considerations

Waste treatment methods
Recommendation:
May be brought to a supervised incineration plant in compliance with local regulations.
EC Regulation for Disposal of Waste (EWC):
06 10 02* WASTES FROM INORGANIC CHEMICAL PROCESSES, wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture; waste containing dangerous substances.

Uncleaned packaging
Recommendation:
Disposal must be made according to official regulations. Empty the packaging with care. Do not contaminate soil, water or environment with the waste container. Comply with local regulations with regard to the recovery or disposal of waste.

SECTION 14: Transport information

Land transport ADR/RID (cross-border)

ADR/GGVSEB class:	Not a dangerous good according to the transport regulations.
Hazard identification number:	-
UN number:	-
Packing group:	-
Label:	-
Special marking:	-
UN proper shipping name:	-
Tunnel restriction code:	-

Inland shipping ADN/ADR

ADN/R-class:	-

UN number:	-
Subsidiary risk	
Environmental hazards:	-
CMR properties:	-
Buoyancy:	-

Maritime transport IMDG

IMDG-class:	-
UN number:	-
Label:	-
Packing group:	-
EMS number:	-
Marine pollutant:	-
Proper shipping name:	-

Air transport ICAO-TI and IATA-DGR

ICAO/IATA-class:	-
UN number:	-
Label:	-
Packing group:	-
Proper shipping name:	-

Environmental hazards
No.

Special precautions for user
None.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No further relevant information available.

SECTION 15: Regulatory information

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

EU regulations and directives which affect this mixture (not yet directly or indirectly mentioned):
Directive 89/686/EEC Personal protective equipment.
Directive 98/24/EC Risks related to chemical agents at work.
Regulation 2003/2003/EC Concerning fertilisers.
Regulation (EC) No 1272/2008 On classification, labelling and packaging of substances and mixtures.
Regulation (EU) 2015/830 Of the Commission of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Chemical safety assessment
A chemical safety assessment has not been carried out.

SECTION 16: Other information

This information is based on the current state of our knowledge. It should not be construed as any guarantee of product characteristics, nor does it establish a legally valid contractual relationship.

List of relevant H- and EUH-phrases from sections 2 and 3

H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Document history

Printed on: 6 January 2017.
Previous edition: 18.07.2012, version 1.0

Version: 1.1.
Modification: Removed references and classifications from the expired Directives 67/548/EEC and/or 1999/45/EC
Name and address manufacturer/supplier

Abbreviations and acronyms:

ADR:	Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID:	Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
IATA-DGR:	Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO:	International Civil Aviation Organization
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO)
P:	Marine Pollutant
GHS:	Globally Harmonized System of Classification and Labelling of Chemicals
CAS:	Chemical Abstracts Service (division of the American Chemical Society)
EC50:	Half maximal effective concentration
LC50:	Lethal concentration, 50 percent
LD50:	Lethal dose, 50 percent
OEL:	Occupational Exposure Limit
NOEC:	No Observed Effect Concentration
vPvB:	Very Persistent and Very Bioaccumulative
PBT:	Persistent, Bioaccumulative and Toxic substance
EWC:	European Waste Catalogue
TWA:	Time-Weighted Average, limit value pertaining to the MAC value
DNEL:	Derived No-Effect Level
DMEL:	Derived Minimal Effect Level
PNEC:	Predicted No-Effect Concentration