






Safety Data Sheet dated 6/3/2017, version 9

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

- 1.1. Product identifier
Trade name: PM-614 ALGIBON
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use:
Specific uses: Biocidal product, disinfectant (type 2).
Uses advised against:
No uses advised against.
- 1.3. Details of the supplier of the safety data sheet
Company:
BONET ESPECIALITATS HIDROQUÍMIQUES, S.L.U.
C/Holanda, 41. Pol.Ind.Pla de Llerona.
C.P.08520 Les Franqueses del Vallés (Spain)
info@behqsl.com
TELF: (+34) 93.846.53.36
FAX: (+34) 93.846.78.21
Competent person responsible for the safety data sheet:
laboratorio@behqsl.com
- 1.4. Emergency telephone number
In case of poisoning call the Spanish National Institute of Toxicology: +34 91 562 04 20

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture
EC regulation criteria 1272/2008 (CLP)
-  Warning, Skin Irrit. 2, Causes skin irritation.
 -  Danger, Eye Dam. 1, Causes serious eye damage.
 -  Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

- P102 Keep out of reach of children.
- P280+P264 Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling.
- P273 Avoid release to the environment.
- P391 Collect spillage.
- P501 Dispose of contents and/or its container in accordance with the hazardous waste regulation.

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Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards








SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 7% - < 10%	Quaternary ammonium chloride polymerized	CAS: 25988-97-0	 3.1/4/Oral Acute Tox. 4 H302  4.1/A1 Aquatic Acute 1 H400 M=10.  4.1/C1 Aquatic Chronic 1 H410 M=1.
>= 5% - < 7%	Copper sulphate pentahydrate	Index number: 029-004-00-0 CAS: 7758-99-8 EC: 231-847-6	 3.1/4/Oral Acute Tox. 4 H302  3.3/2 Eye Irrit. 2 H319  3.2/2 Skin Irrit. 2 H315  4.1/C1 Aquatic Chronic 1 H410

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Remove contaminated clothing immediately and dispose off safely.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. OBTAIN IMMEDIATE MEDICAL ATTENTION.

Wash thoroughly the body (shower or bath).

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

SKin and eyes irritation.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment: Symptomatic and support treatment.

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SECTION 5: Firefighting measures

- 5.1. Extinguishing media
 - Suitable extinguishing media:
Water, carbon dioxide (CO₂).
 - Extinguishing media which must not be used for safety reasons:
None in particular.
- 5.2. Special hazards arising from the substance or mixture
 - Do not inhale explosion and combustion gases.
 - Burning produces heavy smoke.
- 5.3. Advice for firefighters
 - Use suitable breathing apparatus .
 - Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
 - Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
 - Wear personal protection equipment.
 - Remove persons to safety.
 - See protective measures under point 7 and 8.
- 6.2. Environmental precautions
 - Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
 - Retain contaminated washing water and dispose it.
 - In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
 - Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
 - Wash with plenty of water.
- 6.4. Reference to other sections
 - See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
 - Avoid contact with skin and eyes and inhalation of dusts/vapours.
 - No smoking. Keep away from food, drink and animal feed.
 - Use appropriate personal protective equipment. Refer to paragraph 8.
 - Follow legislation on safety and health at work.
 - Prevent entry of unauthorized persons.
- 7.2. Conditions for safe storage, including any incompatibilities
 - As a general storage conditions, it should be avoided sources of heat, radiation, electricity and food contact. Store according to local legislation.
 - Store between 5 and 35 °C in a dry and well ventilated place.
 - Store into the original container. Keep the container properly sealed and labeled.
 - Keep away from incompatible materials: see paragraph 10.
- 7.3. Specific end use(s)
 - None in particular

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
 - No occupational exposure limit available
 - DNEL Exposure Limit Values
N.A.
 - PNEC Exposure Limit Values
N.A.
- 8.2. Exposure controls

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Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Protective gloves according to regulation EN 374.

Suitable material:

PVC (polyvinyl chloride).

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes:
Appearance and colour:	Dark blue liquid	--	--
Odour:	Slightly characteristic	--	--
Odour threshold:	Not Relevant	--	--
pH:	9.0 - 10.0	--	--
Melting point / freezing point:	0 °C	--	--
Initial boiling point and boiling range:	100 °C	--	--
Flash point:	Not applicable (aqueous solution)	--	--
Evaporation rate:	Not available	--	--
Solid/gas flammability:	Not flammable	--	--
Upper/lower flammability or explosive limits:	Not applicable	--	--
Vapour pressure:	Not available	--	--
Vapour density:	Not available	--	--
Relative density:	1.05 - 1.20 (20 °C)	--	--
Solubility in water:	Soluble in water in all proportions	--	--
Solubility in oil:	Not Relevant	--	--
Partition coefficient (n-octanol/water):	Not available	--	--
Auto-ignition temperature:	Not applicable (not flammable)	--	--
Decomposition temperature:	Not available	--	--
Viscosity:	Not available	--	--
Explosive properties:	No explosive	--	--
Oxidizing properties:	Non oxidizing	--	--

9.2. Other information

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Properties	Value	Method:	Notes:
Miscibility:	Not Relevant	--	--
Fat Solubility:	Not Relevant	--	--
Conductivity:	Not Relevant	--	--
Substance Groups relevant properties	Not Relevant	--	--

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - Stable under normal conditions
- 10.2. Chemical stability
 - Stable under normal conditions
- 10.3. Possibility of hazardous reactions
 - None
- 10.4. Conditions to avoid
 - Keep away from heat, sparks and flames. Avoid moisture.
- 10.5. Incompatible materials
 - Incompatible with organic matter, anionic detergents, ammonia derivatives and hypochlorite.
 - Incompatible with chromium, lead, aluminum, tin, zinc and its alloys (bronze, brass, etc.).
- 10.6. Hazardous decomposition products
 - Thermal decomposition releases hydrogen chloride and oxides of carbon, copper and nitrogen.

SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
 - Toxicological information of the product:
 - N.A.
 - Toxicological information of the main substances found in the product:
 - Quaternary ammonium chloride polymerized - CAS: 25988-97-0
 - a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat = 300-2000 mg/kg - Source: OECD 401
 - Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Source: OECD 402
 - b) skin corrosion/irritation:
 - Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Source: OECD 404
 - c) serious eye damage/irritation:
 - Test: Eye Irritant - Species: Rabbit Negative - Source: OECD 405
 - e) germ cell mutagenicity:
 - Test: Mutagenesis Negative - Source: OECD 471
 - Test: Genotoxicity - Route: Oral - Species: Mouse Negative - Source: OECD 474
 - f) carcinogenicity:
 - Test: Carcinogenicity - Route: Oral - Species: Rat Negative - Source: OECD 453
 - Copper sulphate pentahydrate - CAS: 7758-99-8
 - a) acute toxicity:
 - Test: LD50 - Route: Oral - Species: Rat = 482 mg/kg - Source: OECD TG 401
 - Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Source: OECD TG 402
 - b) skin corrosion/irritation:
 - Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Source: OECD TG 404
 - Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative - Source: OCDE 406
 - c) serious eye damage/irritation:
 - Test: Eye Irritant - Species: Rabbit Positive - Source: OECD TG 405
 - e) germ cell mutagenicity:
 - Test: Genotoxicity - Species: Generic Bacteria Negative - Source: OCDE 471
 - g) reproductive toxicity:
 - Test: NOAEL - Species: Rat Negative - Source: OECD TG 416

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If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Quaternary ammonium chloride polymerized - CAS: 25988-97-0

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 0.08 mg/l - Duration h: 48 - Notes: OECD TG 202

Endpoint: EC50 - Species: Scenedesmus subspicatus = 0.13 mg/l - Duration h: 72 - Notes: OECD TG 201

Endpoint: NOEC - Species: Scenedesmus subspicatus = 0.032 mg/l - Duration h: 72 - Notes: OECD TG 201

Endpoint: LC50 - Species: Onchorhynchus mykiss = 0.077 mg/l - Duration h: 96 - Notes: OECD TG 203

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Onchorhynchus mykiss = 0.024 mg/l - Notes: 28 days; OECD 215

Endpoint: NOEC - Species: Daphnia = 0.026 mg/l - Notes: 21 days; OECD TG 211

12.2. Persistence and degradability

Quaternary ammonium chloride polymerized - CAS: 25988-97-0

Biodegradability: Totally biodegradable - Test: 301 OCDE - Duration: 28 days - %: 81 - Notes: N.A.

Copper sulphate pentahydrate - CAS: 7758-99-8

Biodegradability: Not persistent and Biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes: N.A.

12.3. Bioaccumulative potential

Quaternary ammonium chloride polymerized - CAS: 25988-97-0

Bioaccumulation: Not bioaccumulative - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

Copper sulphate pentahydrate - CAS: 7758-99-8

Bioaccumulation: Not much bioaccumulative - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

12.4. Mobility in soil

Copper sulphate pentahydrate - CAS: 7758-99-8

Mobility in soil: Not mobile - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Waste should not be disposed of through the sewer.

SECTION 14: Transport information

- 14.1. UN number
 ADR-UN number: 3082
 IATA-Un number: 3082
 IMDG-Un number: 3082
- 14.2. UN proper shipping name
 ADR-Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (copper sulphate and quaternary ammonium chloride polymerized in water solution), 9, III, (E)
 IATA-Technical name: Environmentally hazardous substance, liquid, n.o.s. (copper sulphate and quaternary ammonium chloride polymerized in water solution), 9, III, (E)
 IMDG-Technical name: Environmentally hazardous substance, liquid, n.o.s. (copper sulphate and quaternary ammonium chloride polymerized in water solution), 9, III, (E)
- 14.3. Transport hazard class(es)
 ADR-Class: 9
 ADR-Label: 9
 IATA-Class: 9
 IATA-Label: 9
 IMDG-Class: 9
- 14.4. Packing group
 ADR-Packing Group: III
 IATA-Packing group: III
 IMDG-Packing group: III
- 14.5. Environmental hazards
 Marine pollutant: Marine pollutant
- 14.6. Special precautions for user
 IMDG-Technical name: Environmentally hazardous substance, liquid, n.o.s. (copper sulphate and quaternary ammonium chloride polymerized in water solution), 9, III, (E)
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
 No

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
 Dir. 98/24/EC (Risks related to chemical agents at work)
 Dir. 2000/39/EC (Occupational exposure limit values)
 Regulation (EC) n. 1907/2006 (REACH)
 Regulation (EC) n. 1272/2008 (CLP)
 Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 Regulation (EU) 2015/830
 Regulation (EU) n. 286/2011 (ATP 2 CLP)
 Regulation (EU) n. 618/2012 (ATP 3 CLP)
 Regulation (EU) n. 487/2013 (ATP 4 CLP)
 Regulation (EU) n. 944/2013 (ATP 5 CLP)
 Regulation (EU) n. 605/2014 (ATP 6 CLP)
 Regulation (EU) n. 2015/1221 (ATP 7 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
 Restrictions related to the product:

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Restriction 3

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

N.A.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

H302 Harmful if swallowed.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1

Paragraphs modified from the previous revision:

SECTION 2: Hazards identification

SECTION 3: Composition/information on ingredients

SECTION 4: First aid measures

SECTION 6: Accidental release measures

SECTION 8: Exposure controls/personal protection

SECTION 9: Physical and chemical properties

SECTION 10: Stability and reactivity

SECTION 11: Toxicological information

SECTION 14: Transport information

SECTION 15: Regulatory information

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Aquatic Chronic 1, H410	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

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SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.