

## Safety Data Sheet PM-673 ROBOCLEAN TAB

Safety Data Sheet dated 19/12/2022, version 2

---

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

- 1.1. Product identifier  
Trade name: PM-673 ROBOCLEAN TAB
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
Recommended use:  
Flocculant and coagulant in water and waste water treatment.  
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. P.I. Pla de Llerona  
Les Franqueses del Vallès (08520) (Spain)  
Telf: (+34) 900 82 87 81, 93 846 53 36  
Fax: (+34) 93 846 78 21  
info@behqsl.com  
Competent person responsible for the safety data sheet:  
regulatory@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)  
The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).  
Adverse physicochemical, human health and environmental effects:  
No other hazards
- 2.2. Label elements  
The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).  
Hazard pictograms:  
None  
Hazard statements:  
None  
Precautionary statements:  
P102 Keep out of reach of children.  
P262 Do not get in eyes, on skin, or on clothing.  
P312 Call a POISON CENTER if you feel unwell.  
P501 Dispose of contents/container by delivery to an authorized collection point for hazardous waste in your town.  
Special Provisions:  
None  
Special provisions according to Annex XVII of REACH and subsequent amendments:  
None
- 2.3. Other hazards  
No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq 0.1\%$   
Other Hazards:  
No other hazards

---

### SECTION 3: Composition/information on ingredients

- 3.1. Substances  
N.A.

## Safety Data Sheet PM-673 ROBOCLEAN TAB

### 3.2. Mixtures

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

| Qty             | Name        | Ident. Number                                                                                           | Classification                                                                                              |
|-----------------|-------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| >= 1% -<br>< 3% | adipic acid | Index 607-144-00-9<br>number:<br>CAS: 124-04-9<br>EC: 204-673-3<br>REACH No.: 01-21194575<br>61-38-XXXX |  3.3/2 Eye Irrit. 2 H319 |

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

None

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

Treatment: None

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

Water. Carbon dioxide (CO<sub>2</sub>).

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.

## Safety Data Sheet PM-673 ROBOCLEAN TAB

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, inhalation of vapours and mists.  
Prevent entry of unauthorized persons.  
Advice on general occupational hygiene:
- 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.  
None in particular.  
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  
adipic acid - CAS: 124-04-9  
ACGIH - TWA(8h): 5 mg/m<sup>3</sup> - Notes: URT irr, ANS impair
- DNEL Exposure Limit Values  
adipic acid - CAS: 124-04-9  
Consumer: 5 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, local effects
- PNEC Exposure Limit Values  
adipic acid - CAS: 124-04-9  
Target: Fresh Water - Value: 0.126 mg/l  
Target: Marine water - Value: 0.0126 mg/l  
Target: Freshwater sediments - Value: 0.484 mg/kg  
Target: Marine water sediments - Value: 0.0484 mg/kg  
Target: Soil (agricultural) - Value: 0.0228 mg/kg
- 8.2. Exposure controls  
Eye protection:  
Use close fitting safety goggles, don't use eye lens.
- Protection for skin:  
No special precaution must be adopted for normal use.
- Protection for hands:  
Not needed for normal use.
- 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: |
|-----------------|-----------|---------|--------|
| Physical state: | Tablet    | --      | --     |
| Colour:         | Orange    | --      | --     |
| Odour:          | Odourless | --      | --     |

## Safety Data Sheet

### PM-673 ROBOCLEAN TAB

|                                                           |                                     |    |                                                                           |
|-----------------------------------------------------------|-------------------------------------|----|---------------------------------------------------------------------------|
| Melting point/freezing point:                             | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| Boiling point or initial boiling point and boiling range: | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| Flammability:                                             | Non-flammable                       | -- | --                                                                        |
| Lower and upper explosion limit:                          | Not applicable                      | -- | Not available/Not applicable due to the nature/properties of the product. |
| Flash point:                                              | Not applicable                      | -- | Not available/Not applicable due to the nature/properties of the product. |
| Auto-ignition temperature:                                | Not applicable                      | -- | Not available/Not applicable due to the nature/properties of the product. |
| Decomposition temperature:                                | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| pH:                                                       | 5.7 (sol. 1%)                       | -- | --                                                                        |
| Kinematic viscosity:                                      | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| Solubility in water:                                      | Soluble in water in all proportions | -- | --                                                                        |
| Solubility in oil:                                        | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| Partition coefficient n-octanol/water (log value):        | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| Vapour pressure:                                          | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| Density and/or relative density:                          | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| Relative vapour density:                                  | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |
| Particle characteristics:                                 |                                     |    |                                                                           |
| Particle size:                                            | Not available                       | -- | Not available/Not applicable due to the nature/properties of the product. |

9.2. Other information  
No other relevant information

## 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

## Safety Data Sheet

### PM-673 ROBOCLEAN TAB

- 10.4. Conditions to avoid  
Stable under normal conditions.
- 10.5. Incompatible materials  
None in particular.
- 10.6. Hazardous decomposition products  
None.

#### SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

adipic acid - CAS: 124-04-9

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 7.7 mg/l - Duration: 4h - Source: BASF essay

Test: LD50 - Route: Skin - Species: Rabbit > 7940 mg/kg

Test: LD50 - Route: Oral - Species: Rat = 5560 mg/kg - Source: BASF essay

b) skin corrosion/irritation:

Test: Skin Irritant Negative - Source: BASF essay

c) serious eye damage/irritation:

Test: Eye Irritant Positive - Source: OCDE 405

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Species: Guinea pig Negative

e) germ cell mutagenicity:

Test: Mutagenesis Negative

f) carcinogenicity:

Test: Carcinogenicity Negative

g) reproductive toxicity:

Test: Reproductive Toxicity Negative

h) STOT-single exposure:

Test: Respiratory Tract Irritant Positive

i) STOT-repeated exposure:

Route: Oral Negative

j) aspiration hazard:

Negative

If not differently specified, the information required in Regulation (EU)2020/878 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.

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

#### SECTION 12: Ecological information

12.1. Toxicity

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

## Safety Data Sheet

### PM-673 ROBOCLEAN TAB

adipic acid - CAS: 124-04-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Daphnia = 46 mg/l - Duration h: 48 - Notes: Directive 202, part 1 OCDE

Endpoint: EC50 - Species: Pseudokirchneriella subcapitata = 59 mg/l - Duration h: 72 - Notes: Directive 201, OCDE, static

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 6.3 mg/l - Notes: 21 days, Directive 211 OCDE

12.2. Persistence and degradability

adipic acid - CAS: 124-04-9

Biodegradability: Easily biodegradable - Test: Biochemical oxygen demand - %: 83 - Notes: OCDE 301D, 30 days

12.3. Bioaccumulative potential

adipic acid - CAS: 124-04-9

Bioaccumulation: Not bioaccumulative

12.4. Mobility in soil

adipic acid - CAS: 124-04-9

Mobility in soil: Mobile

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

12.7. Other adverse effects

None

#### SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover if possible. 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 or ID number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

Marine pollutant: No

14.6. Special precautions for user

N.A.

14.7. Maritime transport in bulk according to IMO instruments

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) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

## Safety Data Sheet

### PM-673 ROBOCLEAN TAB

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)  
 Regulation (EU) n. 2016/918 (ATP 8 CLP)  
 Regulation (EU) n. 2016/1179 (ATP 9 CLP)  
 Regulation (EU) n. 2017/776 (ATP 10 CLP)  
 Regulation (EU) n. 2018/669 (ATP 11 CLP)  
 Regulation (EU) n. 2018/1480 (ATP 13 CLP)  
 Regulation (EU) n. 2019/521 (ATP 12 CLP)  
 Regulation (EU) n. 2020/217 (ATP 14 CLP)  
 Regulation (EU) n. 2020/1182 (ATP 15 CLP)  
 Regulation (EU) n. 2021/643 (ATP 16 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:

No restriction.

Restrictions related to the substances contained:

Restriction 75

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):

Seveso III category according to Annex 1, part 1

None

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:

H319 Causes serious eye irritation.

| Hazard class and hazard category | Code  | Description                |
|----------------------------------|-------|----------------------------|
| Eye Irrit. 2                     | 3.3/2 | Eye irritation, Category 2 |

This safety data sheet has been completely updated in compliance to Regulation 2020/878.

Paragraphs modified from the previous revision:

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

SECTION 2: Hazards identification

SECTION 3: Composition/information on ingredients

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 9: Physical and chemical properties

SECTION 11: Toxicological information

SECTION 12: Ecological information

SECTION 14: Transport information

SECTION 15: Regulatory information

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

## Safety Data Sheet PM-673 ROBOCLEAN TAB

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. |
| ATE:        | Acute Toxicity Estimate                                                              |
| ATEmix:     | Acute toxicity Estimate (Mixtures)                                                   |
| 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.                                                           |