

Safety Data Sheet

PM-512 MAXI TRICHLOR TAB 20



Safety Data Sheet dated 4/3/2022, version 5

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

- 1.1. Product identifier
Trade name: PM-512 MAXI TRICHLOR TAB 20
- 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. 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)
-  Danger, Ox. Sol. 2, May intensify fire; oxidiser.
 -  Warning, Aquatic Acute 1, Very toxic to aquatic life.
 -  Warning, Eye Irrit. 2, Causes serious eye irritation.
 -  Warning, Acute Tox. 4, Harmful if swallowed.
 -  Warning, STOT SE 3, May cause respiratory irritation.
 -  Warning, Aquatic Chronic 1, Very toxic to aquatic life with long lasting effects.

EUH031 Contact with acids liberates toxic gas.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H272 May intensify fire; oxidiser.

H319 Causes serious eye irritation.

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H302 Harmful if swallowed.
 H335 May cause respiratory irritation.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P210+P370+P378 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. In case of fire, use water in large quantities to extinguish.
 P270+P261 Do not eat, drink or smoke when using this product. Avoid breathing dust.
 P280+P264 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. Wash hands thoroughly after handling.
 P403+P233+P102+P405 Store in a well-ventilated place. Keep container tightly closed. Keep out of reach of children. Store locked up.
 P273 Avoid release to the environment.
 P391 Collect spillage.
 P501 Dispose of contents/container as hazardous waste through an authorized waste management company, in accordance with current regulations.

Special Provisions:

EUH031 Contact with acids liberates toxic gas.
 EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).
 PACK2 The packing must have tactile indications of danger for blind people.

Contains

symclosene; trichloroisocyanuric acid; trichloro-1,3,5-triazinetriion

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.

3.2. Mixtures

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

Qty	Name	Ident. Number	Classification
$\geq 90\%$	symclosene; trichloroisocyanuric acid; trichloro-1,3,5-triazinetriion	Index number: 613-031-00-5 CAS: 87-90-1 EC: 201-782-8 REACH No.: 02-21196799 61-22-0000	 2.14/2 Ox. Sol. 2 H272  3.1/4/Oral Acute Tox. 4 H302  3.3/2 Eye Irrit. 2 H319  3.8/3 STOT SE 3 H335  4.1/C1 Aquatic Chronic 1 H410 EUH031
$\geq 1\% - < 3\%$	adipic acid	Index number: 607-144-00-9 CAS: 124-04-9 EC: 204-673-3 REACH No.: 01-21194575 61-38-0006	 3.3/2 Eye Irrit. 2 H319
$\geq 0.1\% - < 0.25\%$	boric acid	Index number: 005-007-00-2 CAS: 10043-35-3 EC: 233-139-2	 3.7/1B Repr. 1B H360

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		REACH No.: 01-21194866 83-25-0000	
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SVHC, PBT, vPvB, endocrine disruptor substances:

>= 0.1% - < 0.25% boric acid

REACH No.: 01-2119486683-25-0000, Index number: 005-007-00-2, CAS: 10043-35-3,

EC: 233-139-2

SVHC

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.

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:

Give nothing to eat or drink.

In case of Inhalation:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

None

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: None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

In case of fire, use a CO2 fire extinguisher to extinguish.

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.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

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.

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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, inhalation of vapours and mists.

Use localized ventilation system.

No smoking. Keep away from food, drink and animal feed.

Use appropriate personal protective equipment. Refer to paragraph 8.

Prevent entry of unauthorized persons.

Advice on general occupational hygiene:

Follow legislation on safety and health at work.

7.2. Conditions for safe storage, including any incompatibilities

Always keep in a well ventilated place.

Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

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.

Keep away from acids.

Keep away from combustible materials.

Store into the original container. Keep the container properly sealed and labeled.

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/m³ - Notes: URT irr, ANS impair

boric acid - CAS: 10043-35-3

ACGIH - TWA(8h): 2 mg/m³ - STEL: 6 mg/m³ - Notes: (I), A4 - URT irr

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.

Protection for skin:

Chemical protection clothing.

Protection for hands:

Protective gloves according to regulation EN 374.

Material: PVC, neoprene or rubber.

Respiratory protection:

Only if dust is present in the air:

Full mask (EN136) with chlorine filter for B2 and P2 or P3 powder (EN 141).

Thermal Hazards:

None

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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:	White	--	--
Odour:	Slight chlorine odour	--	--
Odour threshold:	Not available	--	--
Melting point/freezing point:	246,8 °C with decomposition	--	--
Boiling point or initial boiling point and boiling range:	Not available	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	Not applicable	--	--
Flash point:	Not available	--	--
Auto-ignition temperature:	Not applicable (not flammable)	--	--
Decomposition temperature:	246,8 °C	--	--
pH:	2.7 - 3.3 (100 g/L)	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	14 g/L (20 °C)	--	--
Solubility in oil:	Not Relevant	--	--
Partition coefficient n-octanol/water (log value):	log Pow 0,94	--	--
Vapour pressure:	< 0,00002 hPa (20 °C)	--	--
Density and/or relative density:	Not available	--	--
Relative vapour density:	Not available	--	--

Particle characteristics:

Particle size:		--	--
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9.2. Other information

Properties	Value	Method:	Notes:
Explosive properties:	No explosive	--	--
Evaporation rate:	Not available	--	--
Miscibility:	Not Relevant	--	--
Conductivity:	Not Relevant	--	--
Viscosity:	Not applicable (solid)	--	--
Oxidizing properties:	Oxidizing	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Oxidizing product.

10.2. Chemical stability

Stable under normal conditions

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- 10.3. Possibility of hazardous reactions
Reacts with water (in small quantities that can wet the product, but is needed in large quantities in fire-fighting).
- 10.4. Conditions to avoid
Avoid humidity and temperatures above 50 °C.
- 10.5. Incompatible materials
Incompatible with oxidizing and reducing agents, acids, alkalis, metals, nitrogen products, oils, fats, peroxides, cationic surfactants.
- 10.6. Hazardous decomposition products
In combination with the above products, decomposes and releases a lot of heat, chlorine, nitrogen trichloride, chlorine oxides, etc.

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:

symclosene; trichloroisocyanuric acid; trichloro-1,3,5-triazinetriion - CAS: 87-90-1

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 787-868 mg/kg - Source: EPA OPP 81-1

Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg - Source: EPA OPP 81-2

Test: LC50 - Route: Inhalation - Species: Rat = 0.09-0.29 mg/l - Source: Eq. OECD 403

b) skin corrosion/irritation:

Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive - Source: EPA OPP 81-5

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Species: Guinea pig Negative - Source: OECD 406

e) germ cell mutagenicity:

Test: Mutagenesis - Species: Generic Bacteria Negative - Source: EPA 163.84-1, 43 FR 37388 (in vitro)

Test: Mutagenesis - Species: Mammal Negative - Source: Eq. UE B.17 (in vitro)

Test: Chromosomal aberrations - Species: Rat Negative - Source: Eq. OECD 475 (in vivo)

f) carcinogenicity:

Test: Carcinogenicity - Species: Rat Negative - Source: UE B33

adipic acid - CAS: 124-04-9

a) acute toxicity:

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

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

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

boric acid - CAS: 10043-35-3

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 3450 mg/kg - Source: OCDE 401

Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 2 mg/l - Source: OCDE 403

g) reproductive toxicity:

Test: NOAEL (Fertility) - Route: Oral - Species: Rat = 100 mg/kg/day

Test: NOAEL (Development) - Route: Oral - Species: Rat = 55 mg/kg - Source: OCDE 414

Test: Reproductive Toxicity Positive

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;

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- 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.
symclosene; trichloroisocyanuric acid; trichloro-1,3,5-triazinetriion - CAS: 87-90-1
- a) Aquatic acute toxicity:
- Endpoint: LC50 - Species: Lepomis macrochirus = 0.23 mg/l - Duration h: 96
 - Endpoint: LC50 - Species: Salmo gairdneri = 0.24 mg/l - Duration h: 96 - Notes: EPA OTS 797.1400
 - Endpoint: EC50 - Species: Daphnia = 0.21 mg/l - Duration h: 48
 - Endpoint: NOEC - Species: Algae 2 0.50 mg/l - Duration h: 3
- 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
- symclosene; trichloroisocyanuric acid; trichloro-1,3,5-triazinetriion - CAS: 87-90-1
- Biodegradability: Easily biodegradable - Test: 301 OCDE - Duration: 28 days - %: 2
- adipic acid - CAS: 124-04-9
- Biodegradability: Easily biodegradable
- 12.3. Bioaccumulative potential
- adipic acid - CAS: 124-04-9
- Bioaccumulation: Not bioaccumulative
- 12.4. Mobility in soil
- N.A.
- 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. 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 or ID number
- | | |
|-----------------|------|
| ADR-UN number: | 2468 |
| IATA-Un number: | 2468 |

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IMDG-Un number:	2468
14.2. UN proper shipping name	
ADR-Shipping Name:	Trichloroisocyanuric acid, dry, 5.1, II
IATA-Technical name:	Trichloroisocyanuric acid, dry, 5.1, II
IMDG-Technical name:	Trichloroisocyanuric acid, dry, 5.1, II
14.3. Transport hazard class(es)	
ADR-Class:	5.1
ADR-Label:	5.1
IATA-Class:	5.1
IATA-Label:	5.1
IMDG-Class:	5.1
14.4. Packing group	
ADR-Packing Group:	II
IATA-Packing group:	II
IMDG-Packing group:	II
14.5. Environmental hazards	
Marine pollutant:	Marine pollutant
14.6. Special precautions for user	
IMDG-Technical name:	Trichloroisocyanuric acid, dry, 5.1, II
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)
 - 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:
 - Restriction 3
 - Restrictions related to the substances contained:
 - Restriction 30
 - 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)

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SVHC Substances:

Substances in candidate list (Art. 59 Reg. 1907/2006, REACH):

boric acid

Toxic to reproduction

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

Seveso III category according to Annex 1, part 1

Product belongs to category: E1

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:

H360 May damage fertility or the unborn child.

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H410 Very toxic to aquatic life with long lasting effects.

EUH031 Contact with acids liberates toxic gas.

Hazard class and hazard category	Code	Description
Ox. Sol. 2	2.14/2	Oxidising solid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Repr. 1B	3.7/1B	Reproductive toxicity, Category 1B
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1

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 4: First aid measures

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

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
Ox. Sol. 2, H272	On basis of test data
Aquatic Acute 1, H400	Calculation method
Eye Irrit. 2, H319	Calculation method
Acute Tox. 4, H302	Calculation method
STOT SE 3, H335	Calculation method

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Aquatic Chronic 1, H410	Calculation method
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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
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.