

MATERIAL SAFETY DATA SHEET

P H M B 2 0

SECTION 1: Identification of the mixture and of the company

1.1 Product identifier

Trade name: PHMB 20%

PHMB=Poly Hex Methylene Biguanide

Kind of product: preparation(mixture)

1.2 Relevant identified uses and uses advised against

20%-PHMB solution is a cationic biocide to be used as raw material in biocides products for general disinfection, or as an in-can preservative for other products. used in disinfectant preparations, food industry, leather industry, hospitals....

1.3 Details of the supplier

Manufacturer: Hubei Taiho Chemical Co.,Ltd

Address: No. 49 taifeng Road,Qianjiang City,Hubei,China

Telephone: +86-0728-50668321

Fax: +86-0728-50668324

Email: manager@jmathchem.cn

SECTION 2: Hazards identification

2.1 GHS Classification

Acute toxicity (Oral) : Category 5

Acute toxicity (Inhalation) : Category 4

Eye irritation : Category 2

Skin sensitization : Sub-category 1B

Specific Target Organ Toxicity : Category 1 Acute

aquatic toxicity : Category 1

Chronic aquatic toxicity : Category 1

2.2 GHS Label elements

Hazard pictograms :



Signal word : **Danger**

湖北江民泰华化工有限公司

Hubei Taiho Chemical Co.,Ltd

Hazard statements	: H303 May be harmful if swallowed. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H372 Causes damage to respiratory tract through prolonged or repeated exposure if inhaled. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	: Prevention: P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling P273 Avoid release to the environment. P280 Wear protective gloves/ eye protection/ face protection. Response: 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. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish. P391 Collect spillage. Storage: P410 + P403 Protect from sunlight. Store in a well-ventilated place. P402 + P404 Store in a dry place. Store in a closed container. Disposal: P501 Dispose of contents/container in accordance with local regulation.

SECTION 3:Composition/information on ingredients

3.1 Substances

Chemical identity of main constituent: PHMB

CAS registry number: [32289-58-0] or [27083-27-8] or [133029-32-0]

Reach registry number: not applicable (biocidal substance)

Generic name: P.H.M.B(Poly Hexa Methylene Biguanide)

Composition: 20%(w/w)PHMB in a hydrochloric solution

Chemical identity of the secondary constituent: Hydrogen Chloride

3.2 Mixture composition

Substances [EC numbers]	CAS numbers	Rate
Water	7732-18-5	79 - 81%
PHMB	32289-58-0	19 – 21%
Hydrogen Chloride	7647-01-0	0.1-0.3%

SECTION 4:First aid measures

4.1 Description of first aid measures

Eye contact	Wash immediately with plenty of water with eye(s) open During at least 15 minutes.Seek for medical advice. Delayed irritation can occur 5 to 15 minutes after exposure in the case of insu wash.
-------------	--

湖北江民泰华化工有限公司

Hubei Taiho Chemical Co.,Ltd

Skin contact	Take off clothing and shoes that may be contaminated. Wash Skin immediately with plenty of clear during water at least 15 minutes.Consult a physician if irritation persists.
Ingestion	Rinse mouth(if victim is conscious)and drink 250-500ml a neutral liquid(water or milk).Do not induce vomiting. Call a physician or Poison Control Centre for medical advice.
Inhalation	Bring out the victim to the fresh air.Ask the victim to wash throat with drinking water.

In case of large body surface exposition,remove shoes then the victim must be Showered with warm water before removing any soiled clothes.

4.2 Indication of any immediate medical attention and special treatment needed

No data.

SECTION 5:Fire-fighting measures

As the product is not flammable nor emits flammable vapours, this section of the safety data sheet describes the requirements for fighting a fire arising in its vicinity.

5.1 Extinguishing media

Suitable extinguishing media:all extinguishing media are appropriate

Unsuitable extinguishing media:none

5.2 Special hazards arising from the substance or mixture

None:PHMB is neither flammable nor explosive

Attention:PHMB is an active disinfectant.Ensure that the fire fighting water(containing PHMB)do not reach sewage system(waste water domestic network)nor the environment(rain water network).

5.3 Advice for fire-fighters

Usual equipment for fighting against chemicals products:boots,gloves,eye and face protection (breathing apparatus if indoor).No other specific equipment.

SECTION 6:Accidental release measures

6.1 Personal precautions, equipment and emergency procedures

- (1)Suitable protective equipment:working clothes, face protection and gloves
- (2)Avoid breathing any aerosol(if any:use an appropriate respiratory protection)
- (3)Emergency procedures:organize the evacuation of the danger area or to consult an expert.

6.2 Environmental precautions

- Do not scatter the material in the environment.
- Do not flush into sewers or surface water(storm water sitches).
- If the product contaminates rivers and lakes or drains inform respective local authorities.

6.3 Methods and cleaning up

- Personnal protection:keep away from possible projections,or wear adapted equipment
- Environmental protection:not hazardous for the environment.
- Limited spoiled zone:wash with a large amount of water
- Important spoils zone:absorb on a neutral support(sand,...)then wash with plenty of water.Product is silppy when spoiled,andcan stay sticky on the places if not washed enough.

SECTION 7:Handling and storage

7.1 Precautions for safe handling

- Keep the product in its original container,properly sealed.
- Do not mix with other chemicals.

湖北江民泰华化工有限公司

Hubei Taiho Chemical Co.,Ltd

- Avoid projections during transfer phases-No specific risks
- Avoid splashing and misting or spray generation
- Do not use high pressure systems to transfer the substance to an open container to prevent accidental aerosol generation.
- Do not eat,drink or smoke in working area.
- Avoid contact with eyes and skin.
- Wash hands after handling.

7.2 Conditions for safe storage.including any incompatibilities

Storage temperature:

- Maintain at T>10°C to avoid precipitation(white jellified solid in the bottom of the containers).Becomes limpid again and keeps its activity after some time in a warm place.
- Keep away from incompatible products and food.

Materials:

- Recommended:High density polyethylene(HDPE),Polypropylene(PP),PVC, Stainless steels.
- Not suitable:metallic materials(Cu,Fe,Zn,ordinary steels...),and some kinds of rubbers.

SECTION 8:Exposure controls/personal protection

8.1 Exposure controls

- Appropriate engineering controls:Avoid splashing and spraying the product
- Personal protective equipment:

8.2 Personal protection

- Eye protection:wear goggles or integral face protection
- Hands protection:wear gloves
- Body protection:wear appropriated working clothes
- Respiratory protection:only in case of brumisation of the product

8.3 Environmental exposure controls

See section 6.2.

SECTION 9:Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Clear to slight opalescent liquid
Colour	Colourless to yellowish
Odour	No odour
PH	4.0—6.0
Freezing point	-2 to -4°C
Boiling point	102 to 105°C
Decomposition temperature	This preparation is stable until its boiling temperature :solid active substance decomposed at 200-230°C
Flash point	n.a.
Flammability	Not flammable preparation
Explosivity	n.a.
Density(20°C)	1.030 to 1.050
Dynamic viscosity	1,2.10 ⁻³ Pa.s at 20°C
Solubility	-Water:soluble in cold and hot water -Other solvents:aliphatic alcohols-glycol -Not soluble in hydrocarbons

湖北江民泰华化工有限公司

Hubei Taiho Chemical Co.,Ltd

Other properties	-Complexes most of metallic cations(Fe,Cu,Ni,Zn,...) -Cationic product not compatible with anionic compounds
------------------	---

n.a.=not applicable

9.2 Other information

Cationic product:Not compatible with anionic substances and their formulations

Sequestering :Complexes most of divalent metal cations(Fe,Cu,Ni,...)

SECTION 10:Stability and reactivity

10.1 Reactivity

No spontaneous reaction,or incompatibility may cause a violent reaction.

10.2 Chemical stability

Stable preparation between+10°C and +75°C

10.3 Hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

Temperatures below 6°C or >50°C(<42F and >122F)

Exposure to direct sunlight.

SECTION 11:Toxicological information

11.1 Acute oral toxicity(rat)

DL₅₀ >2000mg/kg(==>not toxic for human being)

11.2 Acute dermal toxicity(rat)

DL₅₀ >2000mg/kg(==>not toxic for human being)

11.3 Skin irritation(rabbit)

Psi=2.0(==>slightly skin irritant product)

11.4 Eyes irritation(rabbit)

Max O.L.=35

11.5 Others

Skin sensitization(albino)-----no sensitization

0 days subchronic toxicity-----no effect

Cyto-mutagenicity-----no effect

Mutagen----- no

Carcinogen----- no

SECTION 12:Ecological information

12.1 Ecotoxicity

Acute toxicity on fish:CL50=1 to 10 mg/L(96h)

Acute toxicity on mollusks:CE50=1 to 10 mg/L(48h)

Acute toxicity on algae:CE50>01 mg/L(72h)&NOEC50>0.01mg/L(72h)

12.2 Other data

Respiration inhibition test:CE50=161 mg/L(3h)(activated sludge)

Waste waters treatment:same way as total arganic caron(T.O.C.)

SECTION 13:Disposal considerations

13.1 Waste treatment methods

(a)Contaminated packing

-Containers contaminated with the preparation can be washed with water until the disappears.

-If possible,pour the rinse water in the formulation.

湖北江民泰华化工有限公司

Hubei Taiho Chemical Co.,Ltd

-Dispose of in accordance with current legislation according to the circuits locally authorized.

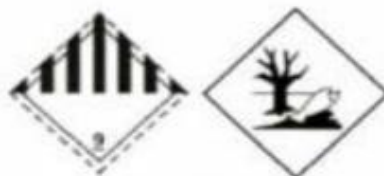
(b)This preparation is a biocide product.So,do not neutralize it through a bacteriological wastewater treatment plant.

(c)Do not drain into a domestic sewage system.

SECTION 14:Transport information

Transport classification according to European Agreement concerning the International Carriage of Dangerous Goods by Road(ADR)

14.1 Transporting Label:



14.2 Marine pollutant: Yes

14.3 UN number: UN 3082

14.4 UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s.

(Polyhexamethylene biguanide hydrochloride)

14.5 Transport hazard classe(s) : 9==>Labels:9

14.6 Packing group: III

14.7 Environment hazards

-Tunnel Code(ADR): E

-Dangerous for the environment: Yes

SECTION 15:Regulatory information

Not registered as a hazardous compound in the EEC lists(ELINCS or EINECS)

SECTION 16:

Creation Date: Mar-20th, 2015

Revision Date: Apr-29th, 2020

Meanings of the acronyms used in this MSDS:

Cat

Category

STOT

Specific Target Organ Toxicity

SE

Single Exposition

PBT

Persistent,Bio-accumulative and Toxic substances

The information contained herein is based on the state of our knowledge,data and our knowledge of key legislation and regulations relating to the product at the time of updating this document.

All information is given in good faith but without warranty.Customers should ensure that their use of the products comply with specific regulations in the relevant market.