

Material Safety Data Sheet

1. Identification of substance/formulation and producer:

Product Name	PHMB
Company Name	Ningbo Century Times Import And Export Co., Ltd
Emergency phone number:	0086-574-8730-9393

2. Composition/Ingredients

Name:	Amount:	CAS Number	Hazard Symbols and R-Phrases
Polyhexamethylenebiguanide hydrochloride	20%	32289-58-0	Xn: R22; Xi: R36/38
Water	80%		

3. Hazards Identification

Not hazardous in concentration used for disinfection/treatment. Concentrate may cause irritate eyes and skin. Although it is not volatile, may irritate eyes and upper air passages when sprayed. Harmful in case of indigestion

4. First Aid Measures

Inhalation

Leave the area of exposure. In case of any effects remain, seek medical advice and show the etiquette or MSDS.

Skin contact

Take off contaminated clothes. Wash off the exposed skin with water. Use skin protection preparations in case of dryness

Eye contact

Remove contact lenses. Irrigate with water or eyewash for 15 minutes, while holding the eyelids apart. Seek medical attention.

Indigestion:

Wash mouth with water. Do not induce vomiting. Drink 0,5 liter of water and administer 15 pills of activated carbon in case of sickness. Do not give anything by mouth to an unconscious person. Seek medical attention.

5. Fire Fighting Measures

Extinguishing agent: Any

Special Hazards: Although the aqueous solution is not flammable, in case of fire, toxic fumes may appear after water evaporation and the solid preparation is heated for a long time.

Protective equipment: In case of fumes mentioned above, full protective equipment (self-contained breathing apparatus and appropriate suits) is necessary.

6. Accidental Release Measures**Personal Precautions**

Personnel should be equipped with appropriate protective wear during concentrated spillage removal (gloves, glasses, aprons).

Environmental precautions

Large amounts of uncontrolled discharges to environment should be reported to appropriate authorities. (3-4 ppm of active substance is quite safe for aquatic life).

Cleaning

Use adsorbent (sand or special one). Put it in the container and dispose. Clean the area with water and soap.

7. Handling and Storage

Safe Handling Advice: Avoid skin and eyes contact. Do not breathe spray. Do not eat or smoke during work with the preparation and obey safety rules when handling chemical substances.

Storage Rooms Advice: Keep containers tightly closed and properly marked. Do not store with strong oxidizers and acids.

Recommended material: HDPE; LDPE

Unsuitable material: Metal containers are not suitable for concentrations above 1%.

8. Exposure Controls/ Personal Protection

No occupational limits assigned

Technical measures: When there is a possibility to create aerosol, use proper ventilation.

Personal protection: All protective equipment should be in compliance to local regulations/ quality certificates/ standards.

General protective measures: Wash hands after work. Do not eat during work.

Eye protection: Use eye protection glasses.

Body protection: Use apron/suit.

Hand protection: Use gloves.

Respiratory tract protection: Use protective equipment or gauze mask.

9. Physical and Chemical Properties

Form	Colorless to Slightly Yellow & clear Liquid
Odour:	No odour
Boiling Point:	102~103° C
Explosion limits:	Not explosive
Flash point:	Boils without flashing
Vapor pressure:	No data
Specific gravity	1.03~1.05g/cm ³
Solubility in water (20 ° C)	Very good
Solubility in oil	Not soluble
pH: 20% solution	4 - 6

10. Stability and reactivity

Stable.

Materials to avoid: Strong oxidizers, acids and bases.

Hazardous degradation products: Toxic fumes (carbon oxides, nitrogen oxides) may appear when burned (after water evaporation).

11. Toxicological Information

Acute toxicity

LD₅₀ Oral Rat: 2000 mg/kg

Delayed or chronic effects

No carcinogenic, embriotoxic, mutagenic or teratogenic properties were found.

Irritation; Sensitization

Inhalation: Exposure to aerosols may cause irritation to eyes and upper air passages. High exposures may lead to methaemoglobinia.

Skin contact: Exposure to concentrate will cause skin irritation. Chronic skin contact may lead to severe irritation and dermatitis. Solutions <5% are practically safe. Single exposure at 10-15% solutions did not caused irritation.

Eye contact: Cause irritation to eye mucous membranes. 10-100% severe irritation. 10-5% medium irritation.

Indigestion: Cause irritation to gastrointestinal tract. Indigestion of large amounts leads to breathing and movement disturbances, skin and mucous membranes cyanosis, oxidizing-reducing processes disturbances, hydrogen carbonate and protein management abnormalities.

12. Ecological Information

Elimination

PHMB does biodegrade in natural/biotic conditions. When highly diluted, microflora which residue in open water sediments is able to metabolize it. It is not biodegradable in abiotic conditions (no photodegradation).

Mobility

It is soluble. It is predicted not to be mobile in soil or sediments.

Bioaccumulation

There is no evidence the PHMB accumulates in environment.

Ecotoxicity No data.

13. Disposal Considerations

In compliance to local or state regulations.

14. Transport Information

UN No. : N/A

IMO/IMDG: N/A

15. Regulatory Information

Hazard Labels:	Xi; Xn;
R- phrases:	R-36, R22; R36/38
S-phrases:	S-23 Do not breathe spray S-51 Use in well ventilated areas S-36/37/39- Wear appropriate protection, suit, eye/face protection, gloves.

16. Other Information

This MSDS was based on own research and Siri Vermont Database and RTECS.

If product application conditions are not under the supervision of the producer, the user is responsible for a proper product application and handling.

Information in this MSDS are based on current knowledge about the product and are here only to help the users to handle the product safely. They can not be taken as warranty, either expressed or implied.
