

# PHMB P20 D

## **1 - PRODUCT AND COMPANY IDENTIFICATION**

**USES** : **Cationic disinfectant**, used in disinfectant preparations : general disinfection, food industry, leather industry, hospitals, ... Used as a preservative in cosmetics, ...  
Can be used in every preparation that needs a cationic disinfectant.

**MANUFACTURER / SUPPLIER** : **LABORATOIRE PAREVA**

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## **2 - HAZARDS IDENTIFICATION :**

**CONTACT WITH EYES** : Irritating to eye. Risk of serious damage to eyes.

**CONTACT WITH SKIN** : Irritating to skin in case of an extended contact.  
Symptoms : rednesses with irritation of the exposed zones.

**INHALATION** : induce cough, only in case of a brumisation of the product.  
Leaves a bitter taste in the throat.

**PHYSICO-CHEMICAL HAZARDS** :  
no spontaneous or incompatibility reactions able to set off a violent reaction.

## **3 - COMPOSITION / INFORMATION ON INGREDIENTS**

**GENERIC NAME** : **P.H.M.B.** (Poly Hexa Methylene Biguanide)

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

**Main Active Substance** : Poly(iminoimidocarbonyliminohexamethyleneBiguanide) hydrochloride  
CAS-RN = [32289-58-0] or [27083-27-8] or [91403-50-8]

**2nd Active Substance** : hydrogen chloride (0.10 - 0.15%)  
CAS-RN = [7647-01-0] ==> *label at this rate = Xi, R36/37/38*

## **4 - FIRST-AID MEASURES**

**INHALATION** : not hazardous by inhalation. Wash throat by drinking water.

**EYE CONTACT** : wash with plenty of water during 5 to 10 minutes.

**SKIN CONTACT** : wash with plenty of water during 5 to 10 minutes.

**INGESTION** : drink about 250 to 500 ml of a neutral liquid (water or milk).  
Do not induce vomiting. Seek medical advice.

## **5 - FIRE-FIGHTING MEASURES**

**SPECIFIC HAZARDS** : none, the product is neither flammable nor explosive.  
Be careful that the extinguishing water (containing PHMB) do not drain to the environment.

**EXTINGUISHING MEDIA** : - suitable : all extinguishing media authorised.  
- not suitable : none.

**PROTECTION OF FIRE-FIGHTERS** : usual equipment for fire-fighting - no specific equipments.

## **6 - ACCIDENTAL RELEASE MEASURES**

PERSONAL PRECAUTION : keep away from possible projections, or wear adapted equipment (see point N°8).

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 slippery when spoiled, and can stay sticky on the places if not washed enough.

## **7 - HANDLING AND STORAGE**

**HANDLING** : avoid projections during transfer phases - No specific risks.

**STORAGE** :

- temperature

Maintain at T > 10 °C (50°F) to avoid precipitation (whitegelified solid in the bottom of the containers). Becomes limpid again and keeps its activity after a long time in a warm place under an efficient stirring.

- Materials

- recommended : polyethylene, polypropylene, PVC, stainless steels.
- not suitable : metallic materials (Cu, Fe, Zn, ordinary steels,...), and some kind of rubbers.

## **8 - EXPOSURE CONTROL / PERSONAL PROTECTION**

EYES 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

## **9 - PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE : clear to slightly opalescent liquid

COLOUR : colourless to yellowish.

ODOUR : no odour.

pH : 4.0 - 5.0

FREEZING POINT : -2 to -4°C (28 to 53 F)

BOILING POINT : 102 to 105 °C (215 to 221 °F)

DECOMP. TEMP. : 230°C (446 °F) : (value for the active ingredient).

FLASH POINT : n.a.

SPONT. FLAMMABILITY : n.a.

FLAMMABILITY : n.a.

EXPLOSIVITY : n.a.

DENSITY (20°C) : 1.030 to 1.050

DYNAMIC VISCOSITY : 1.2 . 10<sup>-3</sup> Pa.s

SOLUBILITIES : - water : soluble in cold and hot water (in all proportions).

- Other solvents : aliphatic alcohols (with short carbon chains) - Glycol.

- Not soluble in hydrocarbons.

## **OTHER PROPERTIES**

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

## **10 - STABILITY AND REACTIVITY**

STABILITY : Product is stable between +6 and +75 °C (42.8 to 167 F).

REACTIVITY : No spontaneous or incompatible reactions able to generate a violent reaction.

**11 - TOXICOLOGICAL INFORMATION**

- Acute Oral Toxicity (rat) :  $DL_{50} > 2000$  mg / kg (==> not toxic for human being)  
Acute Dermal Toxicity (rat) :  $DL_{50} > 2000$  mg / kg (==> not toxic for human being)  
Skin irritation (rabbit) :  $\Psi = 2.0$  (==> slightly skin irritant product)  
Eyes irritation (rabbit) : Max O.I. = 35  
Skin sensitisation (albino) : no sensitisation  
0 days subchronic toxicity : no effect  
Cyto-mutagenicity : no effect  
Génotoxicity (C.H.O. cells) : no chromosomic aberration  
Mutagenicity : no mutagen or pro-mutagen effects  
CARCINOGEN : no.  
MUTAGEN : no.  
TERATOGEN : no.

**12 - ECOLOGICAL INFORMATION :**

- Acute Toxicity on fish :  $CL_{50} = 1$  to 10 mg / L (96 h)  
Acute Toxicity on molluscs :  $CE_{50} = 1$  to 10 mg / L (48 h)  
Acute Toxicity on algae :  $CE_{50} > 0.1$  mg / L (72 h) &  $NOEC_{50} > 0.01$  mg / L (72 h)  
Respiration Inhibition test :  $CE_{50} = 161$  mg / L (3 h) (activated sludge)  
WASTE WATERS' TREATMENT : same way as Total Organic Carbon (T.O.C.).

**13 - DISPOSAL CONSIDERATIONS**

Neutralisation of the product is done by oxidation, using powerful oxidants such as chlorine and bromine derivatives, ozone,...

**Caution** : do not try to destroy the product by bacteriologic mean, the compound being a disinfectant.

**14 - TRANSPORT INFORMATION :**

Compound not submitted to hazardous goods transport regulations.

**15 - REGULATORY INFORMATION :**

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

Regulatory labelling :

Symbol of danger : **Xi** - Irritant

- R 41 - Risk of serious damage to eyes  
R 36/37/38 - Irritating to eyes, respiratory system and skin.  
S 2 - Keep out of the reach of children  
S 24/25 - Avoid contact with skin and eyes  
S 26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S 39 - Wear eye/face protection  
S 46 - If swallowed, seek medical advice immediately and show this container or label.

**16 - OTHER INFORMATION :**

See the product technical data sheet, labels and other useful data documents.

US EPA Agreement for swimming pool and spa treatment : N° 69 461-1 (June 9th, 1998)

Accepted as preservative for cosmetics (Directive 86/199/CEE of March 26, 1986)

Product notification accepted by the European Commission for **Biocidal Products Directive** (98/8/CE).

*The information given in this Safety Data Sheet is based on tests to be reliable. However, the use of the product is beyond the control of our company and no guarantee, expressed or implied, is made as to the effect of such or the results to be obtained if not used in accordance with directions or established safe practice. The buyer must assume all responsibility, including injury or damage, resulting from misuse of the product as such, or in combination with other materials.*