

**SODIUM PERBORATE TETRAHYDRATE****1046**

October 2004

CAS No: 10486-00-7  
RTECS No: SC7350000  
UN No: 1479Perboric acid, sodium salt, tetrahydrate  
 $\text{NaBO}_3 \cdot 4\text{H}_2\text{O} / \text{NaBO}_2 \cdot \text{H}_2\text{O}_2 \cdot 3\text{H}_2\text{O}$   
Molecular mass: 153.9

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Not combustible but enhances combustion of other substances. Gives off irritating or toxic fumes (or gases) in a fire.	NO contact with flammable substances.	In case of fire in the surroundings: use appropriate extinguishing media.
<b>EXPLOSION</b>	Risk of fire and explosion on contact with heat or combustible substances.		In case of fire: cool drums, etc., by spraying with water but avoid contact of the substance with water.

EXPOSURE			
<b>Inhalation</b>	Cough. Shortness of breath.	Local exhaust or breathing protection.	Fresh air, rest.
<b>Skin</b>		Protective gloves.	First rinse with plenty of water, then remove contaminated clothes and rinse again.
<b>Eyes</b>	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Nausea. Vomiting. Diarrhoea.	Do not eat, drink, or smoke during work.	Rinse mouth. Give a slurry of activated charcoal in water to drink. Rest. Refer for medical attention.

SPILLAGE DISPOSAL	PACKAGING & LABELLING
Sweep spilled substance into dry, sealable containers. Do NOT absorb in saw-dust or other combustible absorbents. Do NOT let this chemical enter the environment. Personal protection: P2 filter respirator for harmful particles.	UN Hazard Class: 5.1 UN Pack Group: II

EMERGENCY RESPONSE	SAFE STORAGE
Transport Emergency Card: TEC (R)-51GO2-I+II+III NFPA Code: H1; F1; R0	Well closed. Separated from combustible and reducing substances, strong acids.

## IMPORTANT DATA

**Physical State; Appearance**

WHITE CRYSTALLINE POWDER

**Chemical dangers**

The substance decomposes on warming above 60/C producing toxic fumes including sodium oxide and on contact with water producing boric acid and hydrogen peroxide. The substance is a strong oxidant and reacts with combustible and reducing materials. The solution in water is a weak base.

**Occupational exposure limits**

TLV not established.

MAK not established.

**Routes of exposure**

The substance can be absorbed into the body by inhalation and by ingestion.

**Inhalation risk**

Evaporation at 20/C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed, especially if powdered.

**Effects of short-term exposure**

The substance is irritating to the eyes and the respiratory tract.

## PHYSICAL PROPERTIES

Melting point (decomposes): about 60-65.5/C

Solubility in water, g/100 ml at 20/C: 2.3

## ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms.

## NOTES

Rinse contaminated clothes (fire hazard) with plenty of water.

## ADDITIONAL INFORMATION

## LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible