

## SECURITY INFORMATION OF CHEMICAL PRODUCT (FISPQ)

Product: **VEROMAX 80**

**FISPQ – 08**    **Review 2**    **DATE: 05/10/2010**

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**VEROS PRODUTOS QUÍMICOS LTDA**

**CNPJ: 43.805.456/0001-31**

• **Phone:** (55 11) 2345-5077 • [veros@uol.com.br](mailto:veros@uol.com.br) • [www.veros.com.br](http://www.veros.com.br)

• **Address:** Av. Prof. Luis Ignácio de Anhaia Mello, 1268 - São Paulo / SP – Brazil - CEP 03154-100

### 1 – IDENTIFICATION OF PRODUCT

- 1.1) **Commercial Name**            **VEROMAX 80**
- 1.2) **Chemical Name**            Chlorine Dioxide.
- 1.3) **Synonyms**                    Not applicable.
- 1.4) **Chemical formula**            Cl O<sub>2</sub>
- 1.5) **Molecular Weight**            Not applicable.
- 1.6) **CAS**                            10049-04-4
- 1.7) **Medical Support**            PRÓ-QUÍMICA / ABIQUIM – Phone: 55 11 0800 11 8270

### 2 – COMPOSITION

<b>CAS Number</b>	<b>Chemical Name</b>
10049-04-4	Chlorine Dioxide.

### 3 – DANGERS

Routes of exposure:	The exposure can occur by inhalation or by contact of the product with skin or eyes. To minimize exposure, follow the recommendations for proper use of ventilation and equipment of individual protection.
Information to the doctor:	Symptomatic treatment.

### 4 – MEASURES OF FIRST AID

People allergic to the product should avoid its use.

**Eyes:**                    In the event of contact with the eyes, wash them immediately with running water in abundance by at least 20 minutes, lifting the eyelids to allow the maximum removal of the product. Seek medical advice (ophthalmologist).

**Skin:**                    In case of contact with skin, remove quickly the contaminated clothing and footwear and wash the parties reached with running water in abundance for 15 minutes. However the irritation forward to the doctor. In case of small contact with skin, avoid spreading the material in areas of the skin not affected.

**Ingestion or Inhalation:**    In case of ingestion, does not cause vomiting, wash your mouth with abundant water and seek medical advice immediately.  
Never give anything by mouth to people unconscious or in convulsive state.  
If inhaled, remove the person and transfer to the local environment with natural ventilation and seek medical help.  
If breathing is difficult, administer oxygen. If the victim is not breathing, apply artificial respiration. Keep the victim warm and property.  
Do not breath mouth-to-mouth if the victim has inhaled or ingested the product. In these cases, use mask or other appropriate system of breath.

Make sure that the medical team is aware of the risks of the product and taking appropriate measures for

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their own protection.

### 5 – FIRE CONTROL MEASURES

- Fire:** The product is not flammable under normal conditions, but it is oxidizing agent in contact with combustible organic substances or other material oxidisable can catch fire or explode.
- Appropriate means of extinction:** In small proportions: extinguisher powder chemical, CO<sub>2</sub>.  
In large proportions: Haze of water or foam.  
Treat the vapors and fumes with Fog of water.  
Do not allow direct contact of jets of water with the product.
- Special Methods:** Cool containers with water. Use dry chemical powder to extinguish the fire.
- Protection of fireman:** Use respiratory protection for acid gases, PVC gloves, rubber boots and safety glasses.

Confine the waste water to control fire. Do not allow the material is spread.

### 6 - CONTROL MEASURES TO LEAK OR SPILL

Using the equipment of individual protection (EPIs) indicated.

Keep the environment cool. Remove all sources of ignition.

Isolate and signaling the area.

Recovering the largest possible quantity of product spilled and put in appropriate container, in order to preserve the security of the area.

Absorb spilled waste with soil or sand. Do not use flammable products for absorption.

Avoid that the product penetrates into sewers, water and sewers, when pure.

Wash the area with plenty of water.

Dilute the remains of the product with water and make disposal in accordance with local laws in force.

### 7 - HANDLING AND STORAGE

As a strong oxidant, you should avoid the contact of the product with reducing substances, which may cause its violent decomposition.

Keep the product in closed container, dry, cool place, away from sources of heat and under direct sunlight.

Do not expose the packages at temperatures above 50 °C.

Keep cool, cool environment during handling.

When in contact with concentrated acid, the product frees the chlorine dioxide gas of the solution stabilized. Therefore, you should avoid the contact of the product with acids.

The product is not flammable, but in concentrated form can cause combustion in organic flammable as paper, straw, wood, greases and oils.

Never puncture the packaging, not reuse the packaging or burn, even after empty.

Keep the product in its original packaging. Do not mix with other chemicals.

Keep the packaging upright and away from children and pets.

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### 8 – CONTROL OF EXPOSURE AND SELF PROTECTION

<b>Individual Protection</b>	Use personal protective equipment: gloves, boots, masks, PVC apron, glasses.
<b>Security mask or glasses</b>	In case of gas detachment of chlorine dioxide solution stabilized (when in contact with strong acid or high temperatures) use with panoramic mask filter for gas (for low concentration) or use standalone mask (for high concentration).
<b>Security gloves</b>	On contacts long and repetitive, use gloves resistant to chemicals.
<b>Ventilation</b>	Keep the product in cool place.
<b>Use precautions</b>	Avoid contact with acids and combustible materials. Avoid contact of pure product with skin, eyes or mucous during handling. If this happens wash with water.

### 9 – PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Net without precipitation
<b>Color:</b>	Transparent slightly yellowish
<b>Density:</b>	1,1 ± 0,1 g/cm <sup>3</sup>
<b>pH:</b>	9,5 ± 0,5
<b>Solubility:</b>	Soluble in water
<b>Concentration:</b>	8%

### 10 – STABILITY

<b>Stability:</b>	Stable sealed in the original packaging, in temperatures normal storage
<b>Conditions to avoid:</b>	Avoid high temperatures, sunlight, contact with acids, fuels, organic substances or other material oxidisable. In high concentration, in contact with acid product, can remove toxic gas.
<b>Incompatibility:</b>	Acids, organic solvents and combustible materials.

### 11 – TOXICOLOGICAL INFORMATION

Proceeds of low toxicity. It is not residual.

Risk of chronic health: none component of this product is listed as carcinogênico by OSHA.

Mutagenicity: there is no evidence to the present date for mutagenicity in animals or in vitro studies.

### 12 - ECOLOGICAL INFORMATION

No data are available. In high concentration, in contact with acid product, can remove toxic gas.

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### 13-CONSIDERATIONS ON TREATMENT AND PROVISION

The waste must be prepared as specified by the Body of Local Environmental Control.

### 14 – TRANSPORT INFORMATION

It is a not dangerous product.

### 15 - REGULATORY INFORMATION

The following standards apply to the ground transportation:

Law No. 2063 of 06/10/83 - Maximum fines.

Law No. 9605 of 05.18.1998 – About penalties derived from activities harmful to the environment.

Resolution 420/04 - ANTT - Additional Instructions to RTPP (Classification and list of dangerous products)

Resolution 701/04 - ANTT - Change the ANTT Resolution 420/04.

Resolution 1644/06 - ANTT - Change the ANTT Resolution 420/04 and ANTT Resolution 701/04.

NBR-7500 - Identification for ground transportation, handling and storage products.

NBR-14725 - Information Product Safety Chemicals - MSDS

### 16 - FUTHER INFORMATION

• For specific information on the product please contact:

Telephone: (55 11) 2347-1677, Fax: (55 11) 2345-6825, E-mail: [veros@uol.com.br](mailto:veros@uol.com.br)

• Emergency Telephones (24 hours):

Pro-Quimica / Standards: (55 11) 0800 11 8270

Fire / Rescue: 193 (fires, leaks, emergencies)

• The product should only be used for the applications listed in its packaging.

• How specific conditions for use of the product are beyond the control of the supplier, the user is responsible for ensuring that the local laws are followed.

• The information contained in this form of information security of the chemical are based on the knowledge, expertise, current legislation and the composition of risk.

### OBSERVATIONS

• Buyers not be exempt from tests and experiments themselves, in view of the large number of influences that might arise in the process of transformation and application of our products. This information implies a legal guarantee for certain properties of suitability of the product for a specific use.

• Any infringement of rights of protection, as well as laws and rules will be full and exclusive responsibility of the buyer.