



Chemical and Agricultural Industry, Research S.A.

SAFETY DATA SHEET

Bordeaux mixture Vioryl 20WP

According to Annex II of the Regulation 1907/2006 EC as amended by the Regulation No 453/2010EC & 1272/2008 (CLP)

Revision: 1-2-2017

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Identification of the product

Designation	Bordeaux mixture. Copper Fungicide.
Trade name	Bordeaux mixture Vioryl 20WP

1.2 Product use

Product Use	Inorganic fungicide with protective action
-------------	--

1.3 Company details

Vioryl s.a. 28 th km Athens-Lamia National Road,19014 Afidnes, GREECE	Tel. +30 22950-45100
	Fax +30 22950 45250
	Email agrochemical@vioryl.gr

1.4 Emergency telephone number: In case of poisoning call: +30 210 7793777

2. HAZARDS IDENTIFICATION

2.1 Classification

Classification according to the Regulation (EC) 1272/2008. Regulated as dangerous material.

2.2 Labeling



Warning

H phrases:

H319: Causes serious eye irritation. Eye Irr. Cat. 2

H410: Very toxic to aquatic life with long lasting effects. Aquatic Chronic Cat. 1

P phrases:

P405+P102: Keep it locked and out of the reach of children

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

SP1: Do not contaminate water with the product or its packaging.

EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

P101: If medical advice is needed, have product container or label at hand.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.
If swallowed: give milk or water and contact the Poison Center to obtain instructions and further treatment.

3. **COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 **Composition**

Composition:	% w/w	EC Classification
		Regulation 1272/2008 EC
Bordeaux mixture (20% in metallic copper) Cas no 8011-63-0	20% Cu	GHS05, Warning Eye Irr. Cat. 2 H319 GHS09, Aquatic Chronic Cat. 1 H410

4. **FIRST-AID MEASURES**

Skin Contact: Do not permit dust to accumulate on exposed skin or clothing. Slight skin irritant. Flush skin with copious amounts of water for at least 10 minutes. Obtain medical attention if irritation persists.

Eye Contact: Prevent contact with eyes. Causes irritation. Flush/irrigate eye with copious amounts of water for at least 10 minutes. Obtain medical attention if eyes irritation persists.

Ingestion: If swallowed, give milk or water and induce vomiting or perform gastric lavage. Vomiting can be caused by mechanical irritation of the throat or with syrup of ipecac. Do not induce vomiting if the person is not conscious. After vomiting administer carbon in sufficient quantity. Seek medical advice if significant amount is ingested. ANTIDOTE: Penicillamine.

Inhalation: Repeated or prolonged inhalation of mist may cause irritation of the upper respiratory tract. Remove to fresh air.

5. **FIRE-FIGHTING MEASURES**

5.1 **If the product is not directly involved in the fire**

Use the best means available to extinguish the fire.

5.2 **If the product is involved in the fire**

When involved in a fire and exposed to extremely high temperatures, the components of this product can decompose to produce irritating smoke and vapors. Use foam, dry chemical, CO₂ or sand.

6. **ACCIDENTAL RELEASE MEASURES**

Avoid creating dust. Release of the product in large quantities should be cleaned. Gather the material released and put it in special barrels. Do not use water to clean the infected area. Take special care to avoid contamination of water and water mains.

7. **HANDLING AND STORAGE**

7.1 **Handling**

Use with adequate ventilation.
Wash thoroughly hands after handling.
Keep away from heat, sparks and flames.
Avoid contamination by incompatible materials.
Avoid unnecessary exposure to the atmosphere.

7.2 **Storage**

Keep away from heat and fire sources.
Keep away from combustible materials and substances
Ensure high standard in the storage area.
Do not store in iron containers.

8. **EXPOSURE CONTROL / PERSONAL PROTECTION**

8.1 **Occupational exposure limits**





Bordeaux mixture
ACGIH TLV: 1mg/m³ TWA (copper dusts and mists)

OSHA PEL: 1mg/m³ (copper dusts and mists)
 NIOSH PEL: 1mg/m³ (copper dusts and mists)

8.2 Precautionary and engineering measures

Avoid high dust concentration and provide ventilation where necessary. Provide local exhaust ventilation system.

8.3 Personal Protection

<p><i>Eyes protection:</i> Wear Safety glasses, splash proof goggles. Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area.</p>	
<p><i>Hand/skin protection:</i> Wear appropriate gloves when handling the product for a long time. Suitable materials: Nitrile, Polyvinyl chloride (PVC or vinyl) and Neoprene. After using the product, wash your hands and follow hygiene rules.</p>	
<p><i>Skin and body protection</i> Suitable protecting clothes. When necessary use impervious clothing to prevent skin contact with this material.</p>	
<p><i>Respiratory protection:</i> NIOSH/MSHA approved respiratory devices for efficient protection against particulate matter.</p>	

9. PHYSICAL AND CHEMICAL PROPERTIES

<i>Appearance</i>	Blue dust
<i>Odor</i>	odorless
<i>pH(10%)</i>	6.7 ± 0.5
<i>Flash point</i>	-
<i>Explosive properties</i>	Not explosive
<i>Oxidizing properties</i>	Oxidizes iron and other metallic containers.
<i>Bulk Density</i>	0.5-0.6 Kg/l

10. STABILITY AND REACTIVITY

10.1 Stability

The product is stable under normal conditions of storage and temperature.

10.2 Conditions to avoid

Contamination by incompatible materials. Intense heat and direct sunlight. Strong oxidizers, hydroxylamine, sodium hypobromite, chlorinated phenols and potassium nitrate, maleic anhydride, nitroethane, nitromethane, nitroparaffins, mineral acids. Acids and ammonium salts partially dissolve the product. If exposed to high humidity it forms corrosive metal oxides.

10.3 Hazardous polymerization: Will not occur.

10.4 Hazardous Decomposition Products:

When burned it decomposes and releases toxic vapors, sulfur and carbon oxides.

11. TOXICOLOGICAL INFORMATION

11.1 General

Prolonged exposure to the dust of copper can cause respiratory irritation. Symptoms of poisoning from the product include pain in the digestive tract, nausea and diarrhea.

11.2 Toxicity Data

Oral rat LD50:> 2000 mg / kg
Dermal LD50> 2000mg/kg
Respiratory: rat LC50: 1.97 mg / l
Eye Irritation: Strong irritant

12. ECOLOGICAL INFORMATION

12.1 Mobility

Copper reacts with organic matter. On the ground it is absorbed by various organizations. Mobility depends on the type of soil. Acidic conditions are both increasing the solubility of the salts and their movement. Not volatile.

12.2 Persistence /Degradability

Copper is bound in the soil particles. Very persistent in soil. DT 50: 10000, DT50(field) 2600 d.

12.3 Bio-accumulation

The product has low potential for accumulation in living organisms.

12.4 Ecotoxicity

This product is toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

13.1 General

If contaminated with other materials, the nature and extent of contamination may require use of specialized disposal methods. Dispose according to label instructions and local health and environmental regulations.

14. TRANSPORT INFORMATION

UN classification

The product is classified according to international codes of transport: ADR (road), IATA (air), RID (rail) and IMDG (sea), as below.

14.1 Land transport ADR/RID

Environmentally hazardous substance solid n.o.s
UN number: 3077
ADR/RID Class: 9
Packing Group: III



14.2 Maritime transport IMDG

Environmentally hazardous substance solid n.o.s
UN number: 3077
IMDG Class: 9
Packing Group: III
MARINE POLLUTANT

14.3 Air transport ICAO-TI and IATA-DGR

Environmentally hazardous substance solid n.o.s
UN number: 3077
ICAO/IATA Class: 9
UN number: Not regulated
Packaging group: III

15. REGULATORY INFORMATION

Labeling according to the Regulation 1272/2008EC (relating to classification and labelling of dangerous substances and preparations).

16. OTHER INFORMATION

The information in this Safety Data Sheet is given in good faith and belief in its accuracy based on our knowledge of the substance/preparation concerned at the date of publication. It does not imply the acceptance of any legal liability or responsibility whatsoever by the Company for the consequences of its use or misuse in any particular circumstances.

Date of last issue: 1/ 2/2017