## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1. Product identifier**
Product name **BORDEAUX MIXTURE 86% WG**
**1.2. Relevant identified uses of the substance or mixture and uses advised against**
Use : Fungicide
**1.3. Details of the supplier of the safety data sheet**
Company : Quimetal Industrial S.A.
Address : Los Yacimientos 1301 Maipú, Santiago – Chile
Telephone : (56-2) 2381 7000
Manufacturer information: www.quimetal.cl
e-mail address : comercial@quimetal.cl
**1.4. Emergency phone number in Chile:** (56-2) 2381 7000
Telephone number Poison Control in Chile: (56-2) 2247 3600. CITUC QUIMICO

## 2. HAZARDS IDENTIFICATION

**2.1 Classification of the substance or mixture**

**GHS Classification**

| | | |
|---|---|---|
| Acute toxicity, Inhalation (Category 4) | H332 | Harmful if inhaled |
| Serious eye damage (Category 1) | H318 | Causes serious eye damage |
| Acute Aquatic toxicity,(Category 1) | H400 | Very toxic to aquatic life. |
| Chronic aquatic toxicity (Category 1) | H410 | Very toxic to aquatic life with long lasting effects |

**2.2 Label elements**
Labeling according Regulation (EC) No 1272/2008

**Pictogram**

**Signal word** **Danger**

**Hazard statement(s)**
H318 Causes serious eye damage
H332 Harmful if inhaled
H410 Very toxic to aquatic lite with long lasting effects.

**Precautionary statement(s)**
P261 – Avoid breathing dust
P273 Avoid release to the environment
P280 Wear protective gloves/ eye protection/ face protection
P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P391 – Collect spillage
P501 Dispose of contents / container in accordance with local regulations

**2.3 Other hazards**
Compliance with PBT/mPmB criteria: No risk in accordance with Regulations 1999/45 EC or not classifies as PBT or vPvB
Other hazards which are not taken into account for classification: the substance/mixture is not classified as SVHC

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

| Component | Concentration | EC-No | CAS-No | Regulation (EC) No 1272/2008 | Hazard statements |
|---|---|---|---|---|---|
| Mixture calcium hidroxide and copper (II) tetraoxosulfate | 25.0 % metallic copper | | 8011-63-0 | Acute toxicity, Inhalation 4<br>Serious eye damage 1<br>Acute Aquatic 1<br>Chronic aquatic 1 | H332<br>H318<br>H400<br>H410 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

**4.1 Description of first aid measures**
General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.
**If inhaled**: lf breathed in, move person into fresh air. lf not breathing, give artificial respiration. Consult physician.
**In case of skin contact**: Wash off with soap and plenty of water.Take victim immediately to hospital. Consult a physician.
**In case of eye contact**: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
**lf swallowed**: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult physician.
**4.2 Most important symptoms and effects, both acute and delayed**: The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11
**4.3 Indications of any immediate medical attention and special treatment needed**: no data available

## 5. FIREFIGHTING MEASURES

**5.1 Extinguishing media**: Suitable extinguishing media. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
**5.2 Special hazards arising from the substance or mixture**: Copper oxides
**5.3 Advice for firefighters**: Wear self-contained breathing apparatus for firefighting if necessary.
**5.4 Further information**: no data available

## 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions,protective equipment and emergency procedures**: Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
**6.2 Environmentalprecautions**: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
**6.3 Methods and materials for containment and cleaning up**: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
**6.4 Reference to other sections**: For disposal see section 13.

## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling**: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**: Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Keep in a dry place.
**7.3 Specific end use(s):** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters**: Components with workplace control parameters
**8.2 Exposure controls**: Operate according to good agricultural practices GAP. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**Personal protective equipment**

**Eye/face protection**: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) o r EN 166(EU).

**Skin protection**: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body Protection**: Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. lf the respirator is the sale means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 lnformation on basic physical and chemical properties

| | |
|---|---|
| Physical state/form/colour | : solid, dust, light blue-green |
| Odour | : no data available |
| Odour Threshold | : no data available |
| pH | : 7.0 to 9.0 at 1 % w/v |
| Melting point/range | : no data available |
| Boiling point/boiling range | : Not relevant since it is a solid preparation |
| Flash point | : non-flammable |
| Evaporation rate | : Not relevant since it is a solid preparation |
| Flammability (solid, gas) | : non-flammable |
| Lower/upper explosion limit | : no data available |
| Vapour pressure | : Negligible at 20º C |
| Relative vapour density | : Not relevant since it is a solid preparation |
| Density | : no data available |
| Solubility in other solvents | : no data available |
| Partition coefficient n-octanol/water | : no data available |
| Viscosity | : no data available |
| Explosive properties | : not explosive |
| Oxidizing properties | : no data available |

### 9.2. Other information

| | |
|---|---|
| Fat solubility | : Insoluble in the most common organic solvents |

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity**: no data available
**10.2 Chemicalstability**: Stable under recommended storage conditions for at least 2 years
**10.3 Possibility of hazardous reactions**: no data available
**10.4 Conditions to avoid**: Avoid excessive heat and humidity
**10.5 Incompatible materials**: Acids and ammonium salts partially dissolve the product
**10.6 Hazardous decomposition products**: Other decomposition products - no data available. In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity: LD50 Oral - rat - > 2000 mg/kg
Acute dermal LD50 rat > 2.000 mg/kg
Acute inhalation toxicity: LC50 (rat) 1.97 mg/l aire, 4h
Skin corrosion/irritation: nonirritating
Serious eye damage/eye irritation: It causes severe eye injuries
Respiratory or skin sensitization: no data available
Germ cell mutagenicity: no data available
Carcinogenicity: IARC: no component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by lARC.
Reproductive toxicity: no data available
Specific target organ toxicity -single exposure: no data available
Specific target organ toxicity - repeated exposure: no data available
Aspiration hazard: no data available

## 12. ECOLOGICAL INFORMATION

**12.1 Toxicity**: Toxic to aquatic life with long lasting effects
**Acute toxicity (short term)**
Fish EC50 / 96h / (O. Mykiss)> 21.39 mg / l
**12.2 Persistence and degradability**: copper is not degraded or dissipated, it is strongly absorbed by the soil, so it has very high persistence. It is not a readily biodegradable substance. No information available.
Physico-chemical and photo elimination: Not available
Biodegradation: Not available
**12.3 Bio accumulative potential**:
Bioconcentration factor (BCF): Copper does not bioaccumulate. The organisms excrete copper naturally
**12.4 Mobility in soil**
Known or predictable distribution to environmental compartments: Mobility copper to deeper soil layers is negligible.
Surface tension: No information available
Adsorption / Desorption: No information available
**12.5 Results of PBT and vPvB assessment**: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
**12.6 Other adverse effects**: toxic to aquatic life.
**12.7. Additional Information**
Not available.
**12.8. Toxicity**
Toxic to aquatic life with long lasting effects.
**12.9. toxicological effects**
No data available

## 13. DISPOSAL CONSIDERATIONS

**1.31 Waste treatment methods**
Appropriate methods for removal of residues of the substance or mixture Contact your dealer, local authorities or an accredited waste disposal for the collection and disposal of products or unusable containers company. The useless products should be disposed of as hazardous waste
Appropriate methods for removal of possible contaminated packaging: Disposal will continue in accordance with local, state or national legislation. Either by incineration or recycling
Codes and designations of wastes pursuant to LoW with: No information available.
relevant to the treatment of waste information: No information available.
relevant to the treatment of wastewater information: No information available
Special precautions: No information available
Community / national / regional waste management provisions: No information available
Community / national / regional provisions related to waste management: Waste disposal continue according to local, state or national provisions

## 14. TRANSPORT INFORMATION

**14.1. UN number**


UN number 3077
Classification ADR/RID: M7
Packing group: III Marine Pollutant
Label: 9

**14.2. UN proper shipping name**

Environmentally Hazardous Substance, Solid, N.O.S. (Bordeaux Mixture), Class 9

**14.3. Transport hazard class (es)**: Class 9

## 15. REGULATORY INFORMATION

**15.1 Safety, health and environmentalregulations/legislation specific for the substance or mixture**

**International Regulations**: Regulation (EU) No 453/2010: Requirements for the development of the safety data sheet. Globally Harmonized System of Classification and Labelling of Chemicals (GHS). International Maritime Dangerous Goods (IMDG) Regulations of the International Civil Aviation Organization (ICAO) and the Association of International Air Transport Association (IATA) on the transport of dangerous goods by air, Regulations concerning the International Carriage of Dangerous Goods by rail (RID), European Agreement on international carriage of dangerous goods by road (ADR)
**National regulations**: NCH 2190 Of.93 `dangerous substance Transport-Signs for hazard identification, NCH 382 Hazardous Substances Of.89 - Terminology and general classification, 298 and 198 DS Transport of dangerous cargo, DS No. 594 Regulations and Sanitary Conditions Basic workplaces in environmental. NCH 2245 Of.2015 Safety Data Sheets for chemicals

**15.2 Chemical Safety Assessment**

The receiver must verify the possible existence of legal regulations applicable to chemical

## 16. OTHER INFORMATION

| | |
|---|---|
| Revision Summary | Update to GHS format |

**Full text of H-5tatements referred to under sections 2 and 3**

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H332 | Harmful if inhaled |
| H319 | Causes serious eye irritation |
| H411 | Toxic to aquatic lite with long lasting effects. |

**Further information**

The information contained in this fact sheet was obtained from reliable sources. The views expressed in this form are those of trained professionals. Information provided in is known today on the subject. Considering that the use of this information and the products is beyond the control of the supplier, the company not liable for this concept. Determine the condition of safe use of the product is the user's obligation.