

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade Name: Bordeaux mixture 22.5% + Cymoxanil 3% WP Blue

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Fungicide and bactericide to crop protection
 Uses advised against: You must not use for other purposes other than those described in the product.

1.3. Details of the supplier of the safety data sheet

Supplier: **INDUSTRIAS QUIMICAS DEL VALLÉS, S.A.**
 Address: Av. Rafael Casanova, 81
 08100 – Mollet del Vallés (Barcelona) - Spain
 Telephone number: (34) 935.796.677
 Fax: (34) 935.791.722
 E-mail address for a competent person responsible for the safety data sheet: fsegur@iqvagro.com

1.4. Emergency telephone number

Availability: **Appointed body relating to emergency health response**
 (To be consulted according to the appointed body)
 Other comments: No information available.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008

Hazard Classes/ categories		Hazard statement(s)	M-Factors
Skin Sens.	Cat.1	H317 : May cause an allergic skin reaction.	No information available.
Acute Tox. Inhalation	Cat.4	H332 : Harmful if inhaled.	
Reproductive Tox.	Cat.2	H361fd : Suspected of damaging fertility or the unborn child.	
Aquatic Acute Tox.	Cat.1	H400 : Very toxic to aquatic life.	
Aquatic Chronic Tox.	Cat.1	H410: Very toxic to aquatic life with long lasting effects.	

2.2. Label elements

Labelling according to Regulation (EC) 1272/2008

Pictograms and Signal word



WARNING

Hazard statement(s)

H317: May cause an allergic skin reaction.
 H332: Harmful if inhaled.
 H361fd: Suspected of damaging fertility or the unborn child.
 H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P202: Do not handle until all safety precautions have been read and understood.
 P261: Avoid breathing dust and spray.
 P280: Wear nitrile gloves and coverall
 P312: Call a POISON CENTER or doctor/physician if you feel unwell.
 P362+P364: Take off contaminated clothing and wash it before reuse.
 P391: Collect spillage.
 P501: Dispose of contents/container to an authorised hazardous waste collection site in accordance with national regulation.

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

Authorisation REACH number(s) : The substance/mixture does not require registration under Regulation (EC) No. 1907/2006 REACH (art. 15).

BORDEAUX MIXTURE 22.5% + CYMOXANIL 3% WP
2.3. Other hazards

 Compliance with PBT/vPvB criteria :
 Other hazards which do not result in classification :

This mixture does not contain any substance that has been assessed as PBT or vPvB.

The substance/mixture is not classified as SVHC.

2.4. Phrases for special risks:

SP1: Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

SECTION 3: Composition/information on ingredients

3.2. Mixtures:

Chemical name	Content (%)	EC number	CAS Number	REACH No.	Classification Regulation (EC) 1272/2008	Hazard statement(s)*
Bordeaux Mixture Technical (reaction products of copper sulphate with calcium dihydroxide)	80.8 - 90	-	8011-63-0	Exempt by art.15 of REACH reg.	Acute Tox. Inhalation Cat. 4 Eye Damage Cat. 1 Aquatic Acute Tox. Cat. 1 Aquatic Chronic Tox. Cat. 1 (Annex VI)	H332 H318 H400 H410
Cymoxanil technical (2-cyano-N-[(ethylamino)carbonyl]-2-(methoxyimino)acetamide)	3.1	261-043-0	57966-95-7	Exempt by art.15 of REACH reg.	Acute Tox. Cat.4 Skin Sensibilisation Cat.1 Repr. Tox. Cat.2 STOT RE Cat.2 Aquatic Acute Tox. Cat 1 Aquatic Chronic Tox. Cat 1 (Annex VI)	H302 H317 H361 fd H373 H400 H410
Ammonium iron(3+) hexakis(cyano-C)ferrate(4-)	≥ 1	247-304-1	25869-00-5	01-211955296-32-XXXX	Aquatic Tox. Chronic Cat.4 (self-classification)	H413

(*) See the full text of the hazard statements in section 16.

 Composition (%) : Bordeaux mixture (22.5% w/w exp. as Cu)
 Cymoxanil (3% w/w exp. as Cymoxanil)

SECTION 4: First aid measures
4.1. Description of first aid measures

General notes:

If symptoms persists, call a physician.

In case of inhalation:

If symptoms are experienced remove source of contamination or move victim to fresh air. Obtain medical advice.

In case of contact with skin:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops.

In case of contact with eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Do not forget to take off contact lenses. Get medical attention if irritation occurs.

En case of ingestion:

 Check breathing
 If necessary artificial respiration.
 Keep the patient at rest
 Maintain body temperature
 Never give anything by mouth to an unconscious person.
 If swallowed, do not induce vomiting.
 If the person is unconscious lay her on her side with the head lower than the rest of the body and semiflexed knees.
 Request attention medical and show this tab or label

Recommendations for first aid responders:

Use suitable protective clothing

4.2. Most important symptoms and effects, both acute and delayed

Most important symptoms and effects, both acute and delayed:	Headache and weakness may occur, proceeding to fainting or unconsciousness Burning pain in the mouth and pharynx, nausea, watery and bloody stools, diarrhea, decrease in blood pressure. Risk of renal and hepatic alterations Sweating, tearing, and seizures
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4.3. Indication of any immediate medical attention and special treatment needed

Indication of any immediate medical attention and special treatment needed:	Not determinated
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:	Suitable extinguishing media: any dry media, foam, carbon dioxide (CO ₂) Collect contaminated fire-fighting water separately. It must not enter the sewage system.
Unsuitable extinguishing media:	Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:	Not known.
Other specific hazards:	Not known.

5.3. Advice for firefighters

Advice for firefighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Keep unauthorised people, children and animals away from the spillage area. Do not breath the powder. Avoid contact with mouth, eyes and skin. Wear suitable protective clothing and gloves to prevent contamination.
For emergency responders:	Not available

6.2. Environmental precautions

Environmental precautions:	Keep out of waterways.
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6.3. Methods and material for containment and cleaning up

Containment:	Construction of barriers of protection, drains and coating methods.
Cleaning:	Cover the product with sawdust, sand or dry land, sweep it, insert it into a dry container, cover it, identify it and dispose in an authorized place. Do not clean the area contaminated with water.
Other information:	Do not use brushes or compressed air to clean surfaces or clothing.

6.4. Reference to other sections

Reference to other sections:	No information available.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Containment and measures to prevent fire:	The job and the methodology should be organized in such a way that direct contact with the product is minimized or prevented. Handle with care. Workspaces Use with adequate ventilation and safety showers presence next.
Measures to prevent aerosol and dust generation:	Avoid spills and leaks
Measures to reduce the release of the substance or mixture to the environment:	No information available.
Advice on general occupational hygiene:	No information available.

7.2. Conditions for safe storage, including possible incompatibilities

Technical measures and storage conditions:	Store the product in its original container, closed and tagged, in cool, dry, ventilated and away from food, beverages and feed. Keep out of reach of children, animals and
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SAFETY DATA SHEET

According to Regulation (EC) No 2015/830 amending Annex II of Regulation (EC)

No 1907/2006 (REACH)

WW_BM22.SCYM3WP_2018_ENG

Revision date:09-10-2018

Version:6.0

Replaces version : 5.0 (13-09-2017)

Page: 4 / 9

BORDEAUX MIXTURE 22.5% + CYMOXANIL 3% WP

Packaging materials: unauthorized personnel
Requirements for storage rooms and vessels: -
Further information on storage conditions: Storage Keep container closed after use. Avoid high temperatures and frost.
No data available

7.3. Specific end use(s)

Recommendations: The product is for plant protection use.
Industrial sector specific solutions: -

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL data: Not available
Information on monitoring procedures: Not available
Currently recommended monitoring methods: Not available
Specific monitoring standards: No information available.
PNEC data: Not available
Control banding approach ("control banding"): Good industrial hygiene practices

8.2. Exposure controls

Appropriate engineering controls: -
Appropriate exposure control measures related to the identified use(s) of the substance or mixture: -
Structural measures to prevent exposure: No information available.
Organisational measures to prevent exposure: No information available.
Technical measures to prevent exposure: No information available.

Individual protection measures, such as personal protective equipment

Eye/Face protection: Avoid contact. Safety glasses with side-shields or face shield.
Hand Protection: Wear chemical resistant gloves. After use, wash with soap and water inside and outside and keep them dry for later uses.
Others: Mittens, boots or coverall depending on the hazards associated with the substance or mixture and the possibilities of contact.
Respiratory Protection: In case of insufficient ventilation, use respiratory protection equipment while preparing the mixture, as well as in loading, application, cleaning and equipment maintenance operations: use respiratory protection against chemicals / particles. Avoid breathing particles.
Thermal hazards: Not available
Skin Protection: Wear suitable clothing to avoid repeated or delayed contact with skin. Clothing must be fitted to the body to ensure the complete coverage with no openings which come into contact with chemicals, After use, wash thoroughly with soap and water and keep the clothes dry.

Environmental exposure controls

Appropriate exposure control measures related to the identified use(s) of the substance or mixture: Prevent the spills to the environment. Keep the product in its original container, locked up and away from adverse climatic conditions. Keep away from drains and sewage systems.
Structural measures to prevent exposure: No information available.
Organisational measures to prevent exposure: No information available.
Technical measures to prevent exposure: No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Blue solid powder
Odour:	Odourless
Odour threshold:	No data available
pH-value at 1%:	6 - 8 (20 °C)
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point:	Not relevant since the formulation is a solid preparation
Evaporation Rate:	No data available
Flammability (solid, gas):	Non-flammable
Upper/lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Bulk density:	0.72 – 0.77 g/mL
Relative density:	Not relevant since the formulation is not a liquid.
Solubility (is):	Water solubility: Bordeaux mixture technical: pratiquement insoluble. Cymoxanil technical: 890 mg / kg (pH 5, 20 ° C) Fat solubility: Bordeaux mixture technical: pratiquement insoluble. Cymoxanil technical: - hexane: 1,85 g / l (20 ° C) - Toluène: 5,29 g / l (20 ° C) - Acétonitrile: 57 g / l (20 ° C) - Acétate d'éthyle: 28 g / l (20 ° C) - N-octanol: 1,43 g / l (20 ° C) - Méthanol 22,9 g / l (20 ° C) - Acétone: 62,4 g / l (20 ° C) - Chlorure de méthylène: 133,0 g / l (20 ° C).
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	> 200 °C
Decomposition temperature:	No data available
Viscosity:	Not relevant since the formulation is not a liquid
Explosive properties:	Non-explosive
Oxidising properties:	Non-oxidising

9.2. Other information

Other information: No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity: No data available

10.2. Chemical stability

Chemical stability: Stable under normal conditions of storage for a period of 2 years, as minimum.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions: No data available

10.4. Conditions to Avoid

Conditions to Avoid: Corrosive in the long term to iron metals and alloys in presence of water/humidity.

10.5. Incompatible materials

Incompatible materials: Acids and ammonium salts partially dissolve the product
Cymoxanil decomposes slowly on exposure to water.

10.6. Hazardous decomposition products

Hazardous decomposition products: Bordeaux Mixture descomposes above 200 °C producing sulfur oxides (SOx)
Cymoxanil decomposition at temperatures over 190°C gives rise to COx, NOx and HCN.
It does not decompose if stored and applied as directed.

SECTION 11: Toxicological information
11.1. Information on toxicological effects

11.1.2. Mixtures		RESULTS
Acute toxicity	Ingestion: LD50	> 2000 mg/kg.Rat <ul style="list-style-type: none"> Evaluation / result: Under the available results, the mixture does not meet the classification criteria.
	Inhalation: LC50	3.48 mg/l .Rat 4h <ul style="list-style-type: none"> Evaluation / result: Harmful if inhaled.
	Skin: LD50	> 2000 mg/kg.Rat <ul style="list-style-type: none"> Evaluation / result: Under the available results, the mixture does not meet the classification criteria.
Irritation:		Skin: Non irritant (rabbit) <ul style="list-style-type: none"> Evaluation / result: Under the available results, the mixture does not meet the classification criteria.
		Eye: Non irritant (rabbit) <ul style="list-style-type: none"> Evaluation / result: Under the available results, the mixture does not meet the classification criteria.
Corrosivity:		No information available.
Sensitisation:		Sensitizer (Mouse) <ul style="list-style-type: none"> Evaluation / result: May cause an allergic skin reaction.
Repeated dose toxicity:		No information available.
Carcinogenicity:		Not applicable. Copper is widely present in all food, feedingstuffs and water.
Mutagenicity:		Not applicable. Copper is widely present in all food, feedingstuffs and water.
Toxicity for reproduction:		[Cymoxanil] > 3 % . Cymoxanyl is classified as toxic for reproduction cat. 2.

Information on likely routes of exposure:
 Main effects:
 Delayed and immediate effects as well as chronic effects from short and long-term exposure:
 Interactive effects:
 Other information:

There is no evidence of symptoms associated with this substance/mixture
 No data available
 No information available.
 No information available.
 No information available.

SECTION 12: Ecological information
12.1. Toxicity
Acute toxicity (short-term)

Fishes: No information available.
 Crustaceans: No information available.
 Algae: No information available.
 Other aquatic plants: No information available.
 Micro-organisms: No information available.
 Aquatic invertebrates: CL50 / 48 h (*Daphnia magna*): 0.238 mg Cu/ L
 Macro-organisms: No information available.

Environmental toxicity

Birds: No information available.
 Bees: No information available.
 Plants: No information available.

Chronic (long-term) toxicity

Fish: No information available.
 Crustaceans: No information available.
 Algae: E_yC50 / 72h (*Pseudokirchneriella subcapitata*) : 0.009 mg Cu/L
 Other aquatic plants: No information available.
 Microorganisms: No information available.
 Macroorganisms: No information available.
Environmental toxicity
 Birds: No information available.



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Version:6.0

Replaces version : 5.0 (13-09-2017)

Page: 7 / 9

BORDEAUX MIXTURE 22.5% + CYMOXANIL 3% WP

Bees:	No information available.
Plants:	No information available.
12.2. Degradability	
Abiotic Degradation:	No information available.
Physical- and photo-chemical elimination:	No information available.
Biodegradation:	No information available.
Other processes:	- Bordeaux Mixture technical: Copper is strongly absorbed by soils, and it does not degrade. - Cymoxanil technical: Cymoxanil is not easily biodegradable. The cymoxanil average lifespan in field varies with soil type.
12.3. Bioaccumulative potential	
Partition coefficient n-octanol /water (Kow):	No information available.
Bioconcentration factor (BCF):	- Bordeaux Mixture technical: Copper does not bioaccumulate. Organisms excrete copper naturally. - Cymoxanil technical: Low risk of bioaccumulation.
12.4. Mobility in soil	
Known or predicted distribution to environmental compartments:	- Bordeaux Mixture technical: Copper that is added to the soil mainly becomes bound to organic material. The content of organic material in the soil and the pH determine the degree of copper availability. Through the strong bounding to various soil components, the leaching out of copper is extremely low. Mobility in soil towards deeper layers is negligible. - Cymoxanil technical: Cymoxanil is mobile.
Surface tension:	No information available.
Adsorption/Desorption:	No information available.
12.5. Results of PBT and vPvB assessment	
Results of PBT and vPvB assessment:	This mixture does not contain any substance that has been assessed as PBT or vPvB
12.6. Other adverse effects	
Other adverse effects:	No information available.
Environmental fate:	No information available.
Photochemical ozone creation potential:	No information available.
Ozone depletion potential:	No information available.
Endocrine disrupting potential:	No information available.
Global warming potential:	No information available.
12.7. Other information	
Other information:	No information available.
12.8. Ecotoxicity	
Ecotoxicity:	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
12.9. Toxicological effects	
Toxicological effects:	No data available


SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of waste treatment of both substance or mixtures:	Waste should not be removed through the sewer. The elimination will be followed according to local, State or national provisions, either by incineration or recycling.
Appropriate methods of waste treatment of contaminated packaging:	The elimination will be followed according to local, State or national provisions. Either by incineration or recycling.
Waste codes / waste designations according to LoW:	No information available.
Appropriate methods of waste treatment of both substance or mixtures:	No information available.
Appropriate methods for the elimination of contaminated packaging:	No information available.
Special precautions:	No information available.
Community/national/regional provisions relating to waste management:	No information available.
Community/national/regional provisions relating to waste:	The elimination will be followed according to local, State or national provisions.

SECTION 14: Transport information

ADR/RID

14.1 UN Number: UN3077
14.2 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains BORDEAUX MIXTURE TECHNICAL, CYMOXANIL TECHNICAL)
14.3 Transport Hazard Class: 9

 ADR/RID Classification: M7
14.4 Packing group: III
 Label: 9
14.5 Environmental Hazards: Contains Bordeaux mixture technical and Cymoxanil technical.
14.6 Special precautions for user: Special Provisions:274,335,601
 Limited Quantities: 5 kg
 Packing Instructions:P002,IBC08,LP02,R001
 Special Packing Provisions: VV1
 Hazard identification number:90
 Kemler Code: 000
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.

IMDG

14.1 UN Number: UN3077
14.2 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains BORDEAUX MIXTURE TECHNICAL, CYMOXANIL TECHNICAL)
14.3 Transport Hazard Class: 9
14.4 Packing group: III
14.5 Environmental Hazards: Marine Pollutant: Yes
14.6 Special precautions for user: Label: 9
 EmS Guide: F-A, S-F
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable

IATA

14.1 UN Number: UN3077
14.2 Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains BORDEAUX MIXTURE TECHNICAL, CYMOXANIL TECHNICAL)
14.3 Transport Hazard Class: 9
14.4 Packing group: III
14.5 Environmental Hazards: Contains Bordeaux mixture technical and Cymoxanil technical.
14.6 Special precautions for user: Label: 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable

SECTION 15: Regulatory information

EU regulations: Regulation (EC) No 2015/830 amending Annex II of Regulation (EC) No 1907/2006 (REACH). Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
Phytosanitary Registration Number: A plant protection registration number has not been declared.
Use authorizations: A wettable powder fungicide/bactericide for the control of various fungal and bacterial
Use restrictions: You must not use for other purposes other than those described in the product.
Other EU regulations: No information available.
Information on emission of volatile organic compounds (VOC): No information available.
National regulations: No information available.



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Version:6.0

Replaces version : 5.0 (13-09-2017)

Page: 9 / 9

BORDEAUX MIXTURE 22.5% + CYMOXANIL 3% WP

15.2. Chemical safety assessment

Chemical safety assessment: No information available.

SECTION 16: Other information

Reason for revision: Regulation (EC) No 2015/830 amending Annex II of Regulation (EC) No 1907/2006 (REACH). Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.

Changes to the previous version: Section 3.2; 8; 9; 11; 14.

Abbreviations and acronyms: SDS: Safety Data Sheet
OEL: Occupational Exposure Limit
NACE: Nomenclature Générale des Activités Économiques dans les Communautés Européennes (French, EU classification system)
TRGS: Real Time Gross Settlement
OECD: Organisation for Economic Co-operation and Development
PBT: Persistent, Bioaccumulative and Toxic
vPvB: Very Persistent and very Bioaccumulative
DNEL: Derived non-effect level
PNEC: Predicted non-effect concentration
LC50: Lethal concentration 50%
LD50: Lethal dose 50%
EyC50: Concentration which 50% inhibition efficiency is observed.
NOEL: Non-observed effect level
NOAEL: Non observed adverse effect level
NOAEC: Non observed adverse effect concentration
SVHC: Substances of Very High Concern

Key literature references and sources for data: REACH Registraton dossier and database of registered substances on the European Chemicals Agency (ECHA).

Indication of which of the methods of evaluating information referred to in Article 9 of Regulation (EC) No 1272/2008 was used for the purpose of classification: Test methods were conducted in accordance with the article 8 of Regulation 1272/2008.

Hazard statements from section 3: **Hazard statement(s)**
H302: Harmful if swallowed.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H332: Harmful if inhaled.
H361fd: Suspected of damaging fertility or the unborn child .
H373: May cause damage to organs through prolonged or repeated exposure
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.
H413: May cause long lasting harmful effects to aquatic life.

Advice on any training appropriate for workers: No information available.

Other information: This information is based on the knowledge we have so far. This SDS refers exclusively to this product. All chemical substances in this product have been reported or are exempt from notification under notification to the EC laws.

Information in this SDS is based on the available published sources and is believed to be accurate. No warranty, express or implied, is made and our company assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application. The specifications of this safety data sheet describes the safety requirements of our product, this is not a guarantee of characteristics. They are based on current state.