

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

1.1. Product identifier

Trade Name: ARMETIL COBRE

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

Identified uses: Fungicide

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

(00 34) 935.796.677

Availability: (8:00 AM - 17:00 PM EST)

Other comments: No information available.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP Classification table

Classification according to Regulation (EC) 1272/2008

Hazard Classes/ categories	Hazard statement(s)	M-Factors
Aquatic Chronic 1	H302	No information available.
Aquatic Acute 1	H318	
Eye Dam. 1	H410	
Acute Tox. 4		

DSD/DPD Classification table

Classification according to directives 67/548/EEC and 1999/45/EC

Categories of danger : Risk Phrases

Xn,N: R22-41-50/53

Harmful if swallowed. Risk of serious damage to eyes. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Other information :

The full text of the R-phrases, indications of danger (H) and additional indications of danger (EUH) can be found in section 16,

Most important adverse physicochemical, human health and environmental effects

Adverse physicochemical effects : No information available.

Adverse human health effects : Harmful if swallowed. Risk of serious damage to eyes.

Adverse environmental effects : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Labelling according to directives 67/548/EEC and 1999/45/EC

Symbol(s) of danger - Indication(s) of danger

N: Dangerous for the environment

Xn: Harmful



Risk Phrases

R22: Harmful if swallowed.

R41: Risk of serious damage to eyes.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

S 2: Keep out of the reach of children.

S13: Keep away from food, drink and animal feedingstuffs.



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- S22: Do not breathe dust.
S24: Avoid contact with skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36: Wear suitable protective clothing.
S37: Wear suitable gloves.
S39: Wear eye/face protection.
S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

Authorisation REACH number(s) : Not applicable

2.3. Other hazards

Compliance with PBT/vPvB criteria : There are no risks in accordance with Regulation 1999/45 of the EC or not classified as PBT or vPvB

Other hazards which do not result in classification : The substance/mixture is not classified as SVHC.

2.4. Phrases for special risks. : No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical name	Content (%)	EC number	CAS Number	Classification Regulation (EC) 1272/2008	Hazard statement(s)*	Classification (Directive 67/548/EEC)*
COPPER OXYCHLORIDE TECHNICAL	68.38 – 70.17	215-572-9	1332-40-7	Aquatic Acute 1; Acute Tox. 4	H302; H332; H400	N, Xn: R20/22-50
METALAXYL TECHNICAL	8.4	260-979-7	57837-19-1	Aquatic Chronic 3; Acute Tox. 4; Skin Sens. 1	H302; H317; H412	Xn: R22-43-52/53

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

Composition (%) : Copper Oxychloride (40% exp. as Cu w/w)
Metalaxyl (8% exp. as Metalaxyl technical w/w)

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 immediately.

En case of ingestion:: Check breathing
If necessary artificial respiration.
If swallowed, gastric lavage may be necessary.
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
Treat symptomatically.

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: Not determined



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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 determined

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Non inflammable product.
Only the container and packing may ignite
Use dry chemical, CO₂, water spray (fog) or foam.
Collect contaminated fire-fighting water separately. It must not enter the sewage system.

Unsuitable extinguishing media: Water jet from high flow (due to risk of contamination).

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: Wear suitable protective clothing and dust mask with filter for chemicals.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

For emergency responders: Not available

6.2. Environmental precautions

Environmental precautions: Keep out of waterways.

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.

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 unauthorized personnel

Packaging materials: -
Requirements for storage rooms and vessels: Storage Keep container closed after use. Avoid high temperatures and frost.

Further information on storage conditions: No data available

7.3. Specific end use(s)

Recommendations: The product is for plant protection use.

Industrial sector specific solutions: -



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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No DNEL data.

Information on monitoring procedures:	Not available
Currently recommended monitoring methods:	Not available
Specific monitoring standards:	No information available.
There are not data of PNEC	
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
Hand Protection:	Wear gloves. (Dexter CE 95 0072 4121 according to EEC/89/686). After use, wash with soap and water.
Others:	Mittens, boots or mono depending on the hazards associated with the substance or mixture and the possibilities of contact.
Respiratory Protection:	In case of insufficient ventilation use respiratory equipment while preparing the mixture. (Affinity FR FFP1 D - CE 0121 according to EN 149:2001) Do not breathe dust. full-face mask
Thermal hazards:	Not available
Skin Protection	Wear suitable clothing to avoid repeated or delayed contact with skin. Thoroughly wash working clothes daily. After use, wash with soap and water.

Environmental exposure controls

Appropriate exposure control measures related to the identified use(s) of the substance or mixture:	No information available.
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:	powder light green
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:	>61 °C
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
Relative density:	0.75 - 0.9 g/ml (20 °C)
Solubility (is):	Water solubility: Copper oxychloride: insoluble. Metalaxyl: 8.4 g/l (22°C).
	Fat solubility: Copper oxychloride: Insoluble.

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Partition coefficient: n-octanol/water: No data available
 Auto-ignition temperature: No data available
 Decomposition temperature: No data available
 Viscosity: No data available
 Explosive properties: Non-explosive
 Oxidising properties: No data available

9.2. Other information

Other information: No data available

Metalaxyl: Ethanol: 400 g/l (25°C).
 Acetone : 450 g/l (25°C).
 Toluene: 340 g/l (25°C).
 N-octanol: 68 g/l (25°C).
 N-hexane: 11 g/l (25°C).

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: Wet and alkaline environments.
 High temperatures

10.5. Incompatible materials

Incompatible materials: Acids and ammonium salts partially dissolve the product

10.6. Hazardous decomposition products

Hazardous decomposition products: HCL, sulphur, oxides of nitrogen and sulphur chlorides.
 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
		COPPER OXYCHLORIDE TECHNICAL
Acute toxicity	Ingestion: LD50	950 - 1862 mg/Kg ·Rat
	Inhalation: LC50	2.83 mg/l ·Rat/4h
	Skin: LD50	>2000 mg/Kg ·Rat
Irritation:		Skin: Non irritant (rabbit) Eye: Slight eye irritation (rabbit)
Corrosivity:		No information available.
Sensitisation:		Non sensitizer (Guinea pig)
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:		Not applicable. Copper is widely present in all food, feedingstuffs and water.

11.1.2. Mixtures		Results
		METALAXYL TECHNICAL
Acute toxicity	Ingestion: LD50	Rat > 633 mg/kg
	Inhalation: LC50	Rat, 4h > 3.6 mg/l air
	Skin: LD50	Rat > 3100 mg/kg
Irritation:		Skin: Contact with the skin (and oral mucosa) may cause irritation. Eyes: Contact with eyes may cause irritation.
Corrosivity:		No information available.
Sensitisation:		May cause sensitization by skin contact
Repeated dose toxicity:		No information available.
Carcinogenicity:		Not carcinogenic.
Mutagenicity:		Not mutagenic.
Toxicity for reproduction:		Not teratogenic.



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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:

Copper Oxychloride technical: EC50/ *O. Mykiss* / 96 h > 43.8 mg/l

Metalaxil: CL50 / *Lepomis macrochirus* / 96 h > 100 mg/l

Crustaceans:

No information available.

Algae:

No information available.

Other aquatic plants:

No information available.

Micro-organisms:

No information available.

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:

No information available.

Other aquatic plants:

No information available.

Microorganisms:

No information available.

Macroorganisms:

No information available.

Environmental toxicity

Birds:

No information available.

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:

- Copper Oxychloride technical: Copper is strongly absorbed by soils, and it does not degrade.

- Metalaxyl: photolytically stable.

12.3. Bioaccumulative potential

Partition coefficient n-octanol /water (Kow):

No information available.

Bioconcentration factor (BCF):

- Copper Oxychloride technical: Copper does not bioaccumulate. Organisms excrete copper naturally.

- Metalaxyl: not bioaccumulate in mammals.

12.4. Mobility in soil

Known or predicted distribution to environmental compartments:

- Copper Oxychloride 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.

- Metalaxyl: It has a mobility in soil medium to high. The main metabolite, metalaxyl acid, is more mobile in the soil than the active substance.

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.



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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

UN Number:

UN3077

Proper Shipping Name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains

OXYCHLORIDE TECHNICAL)

Class:

9



ADR/RID Classification:

M7

Packing group:

III

Label:

9

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

IMDG

Marine Pollutant:

Yes

UN Number:

UN3077

Packing group:

-

Proper Shipping Name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains

OXYCHLORIDE TECHNICAL)

Class:

-

Label:

-

EmS Guide:

F-A, S-F



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IATA

UN Number:	UN3077
Packing group:	-
Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains OXYCHLORIDE TECHNICAL)
Class:	-
Label:	-

SECTION 15: Regulatory information

EU regulations	
Phytosanitary Registration Number.:	2077
Use authorizations:	No information available.
Use restrictions:	The substance has no restriction of use.
Other EU regulations:	No information available.
Information on emission of volatile organic compounds (VOC):	No information available.
National regulations:	No information available.
15.2. Chemical safety assessment	
Chemical safety assessment:	No information available.

SECTION 16: Other information

Labelling according to Regulation (EC) 1272/2008



Signal word

Danger

Hazard statement(s)

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P391	Collect spillage.
P501	Dispose of contents/containers in accordance with local/regional/national/ international regulations

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

Hazard statement(s)

H302:	Harmful if swallowed.
H317:	May cause an allergic skin reaction.
H332:	Harmful if inhaled.
H400:	Very toxic to aquatic life.
H412:	Harmful to aquatic life with long lasting effects.

Reason for revision: N/A

Changes to the previous version:

Format adaptation to the REACH Regulation amendment, the Regulation (EC) 453/2010.



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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%
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:

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:

Relevant R phrases, hazard statements, safety phrases and/or precautionary statements:

REACH Registraton dossier and database of registered substances on the European Chemicals Agency (ECHA).
No information available.

Risk Phrases

R22: Harmful if swallowed.
R41: Risk of serious damage to eyes.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases

S 2: Keep out of the reach of children.
S13: Keep away from food, drink and animal feedingstuffs.
S22: Do not breathe dust.
S24: Avoid contact with skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36: Wear suitable protective clothing.
S37: Wear suitable gloves.
S39: Wear eye/face protection.
S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

Advice on any training appropriate for workers:

Other information:

No information available.

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.