

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 1 of 10
Print date: 04/09/2018

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: QUICELUM
Product Code: PC231

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

Fertilizer

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **Arvensis Agro, S.A.**
Address: Carretera de Castellón, km. 226,9. Polígono PRYDES
City: 50720 La Cartuja
Province: Zaragoza
Telephone: 976 169 181
Fax: 976 169 183
E-mail: jfernando@arvensis.com
Web: www.arvensis.com

1.4 Emergency telephone number: 976 169 181 (Only available during office hours; Monday-Friday; 08:00-18:00)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the mixture.

In accordance with Regulation (EU) No 1272/2008:

Aquatic Chronic 3 : Harmful to aquatic life with long lasting effects.

Eye Irrit. 2 : Causes serious eye irritation.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:



Signal Word:

Warning

H statements:

H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

P statements:

P264 Wash ... thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 2 of 10
Print date: 04/09/2018

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.
P501 Dispose of contents/container to ...

2.3 Other hazards.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Not Applicable.

3.2 Mixtures.

Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

Identifiers	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008	
			Classification	specific concentration limit
Index No: 026-003-01-4 CAS No: 7782-63-0 EC No: 231-753-5	ferrous sulfate heptahydrate, iron (II) sulfate (1:1) heptahydrate, sulfuric acid, iron(II) salt (1:1), heptahydrate	1 - 10 %	Acute Tox. 4 *, H302 - Eye Irrit. 2, H319 - Skin Irrit. 2, H315	Skin Irrit. 2, H315: C ≥ 25 %
CAS No: 10034-96-5	Manganese(II) sulfate monohydrate	1 - 2.5 %	Aquatic Chronic 2, H411 - STOT RE 2, H373	-
CAS No: 7446-20-0	zinc sulfate heptahydrate	1 - 2.5 %	Acute Tox. 4, H302 - Aquatic Acute 1, H400 - Aquatic Chronic 1, H410 - Eye Dam. 1, H318	-
CAS No: 1317-38-0 EC No: 215-269-1 Registration No: 01-2119502447-44-XXXX	copper oxide	0.1 - 25 %	Aquatic Acute 1, H400 - Aquatic Chronic 3, H412	-

(*) The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

* See Regulation (EC) No. 1272/2008, Annex VI, section 1.2.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

Eye contact.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 3 of 10
Print date: 04/09/2018

If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. **NEVER** use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. **NEVER** induce vomiting.

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

Irritant Product, repeated or prolonged contact with skin or mucous membranes can cause redness, blisters or dermatitis, inhalation of spray mist or particles in suspension may cause irritation of the respiratory tract, some symptoms may not be immediate. Can cause allergic reactions.

4.3 Indication of any immediate medical attention and special treatment needed.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

SECTION 5: FIREFIGHTING MEASURES.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media.

Recommended extinguishing methods.

Extinguisher powder or CO₂. In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

5.2 Special hazards arising from the mixture.

Special risks.

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product dangerous for the environment, in case of large spills or if the product contaminates lakes, rivers, or sewers, inform the responsible authorities according to local legislation. Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.

Pick up the spill with non-combustible absorbent materials (soil, sand, vermiculite, diatomite, etc.). Pour the product and the absorbent in an appropriate container. The contaminated area should be immediately cleaned with an appropriate decontaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 4 of 10
Print date: 04/09/2018

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers. In the application area, smoking, eating, and drinking must be prohibited. Follow legislation on occupational health and safety. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 35° C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills. The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %
Uses:	Fertilizer
Breathing protection:	
If the recommended technical measures are observed, no individual protection equipment is necessary.	
Hand protection:	
If the product is handled correctly, no individual protection equipment is necessary.	
Eye protection:	
If the product is handled correctly, no individual protection equipment is necessary.	
Skin protection:	
PPE:	Work footwear.
Characteristics:	«CE» marking, category II.
CEN standards:	EN ISO 13287, EN 20347
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 5 of 10
Print date: 04/09/2018

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance: Liquid with characteristic odour and colour
Colour: Black
Odour: Característico
Odour threshold: N.A./N.A.
pH: 7,5
Melting point: 0 °C
Boiling Point: N.A./N.A.
Flash point: > 60 °C
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: N.A./N.A.
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density: N.A./N.A.
Relative density: 1,2 g/cm³
Solubility: 100
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: N.A./N.A.
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: N.A./N.A.
Oxidizing properties: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid any improper handling.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 6 of 10
Print date: 04/09/2018

SECTION 11: TOXICOLOGICAL INFORMATION.

IRRITANT PREPARATION. Splatters in the eyes can cause irritation.

11.1 Information on toxicological effects.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Splatters in the eyes can cause irritation and reversible damage.

Toxicological information about the substances present in the composition.

Name	Acute toxicity			
	Type	Test	Kind	Value
Manganese(II) sulfate monohydrate CAS No: 10034-96-5 EC No:	Oral	LD50	Rat	2150 mg/kg [1]
		[1] Indian Journal of Pharmacology. Vol. 23, Pg. 153, 1991.		
	Dermal			
	Inhalation			

a) acute toxicity;

Not conclusive data for classification.

Acute Toxicity Estimate (ATE):

Mixtures:

ATE (Oral) = 6.250 mg/kg

b) skin corrosion/irritation;

Based on available data, the classification criteria are not met.

c) serious eye damage/irritation;

Product classified:

Eye irritation, Category 2: Causes serious eye irritation.

d) respiratory or skin sensitisation;

Not conclusive data for classification.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Not conclusive data for classification.

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure;

Not conclusive data for classification.

i) STOT-repeated exposure;

Based on available data, the classification criteria are not met.

j) aspiration hazard;

Not conclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 7 of 10
Print date: 04/09/2018

12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
Manganese(II) sulfate monohydrate	Fish	LC50	Fish	130 mg/l (96 h) [1]
		[1] Lewis, M. 1978. Acute Toxicity of Copper, Zinc, and Manganese in Single and Mixed Salt Solutions to Juvenile Longfin Dace, <i>Agosia chrysogaster</i> . J.Fish Biol. 13(6):695-700		
	Aquatic invertebrates	LC50	Crustaceans	17,6 mg/l (48 h) [1]
		[1] Kimball, G. 1978. The Effects of Lesser Known Metals and One Organic to Fathead Minnows (<i>Pimephales promelas</i>) and <i>Daphnia magna</i> . Manuscr., Dep.of Entomol., Fish.and Wildl., Univ.of Minnesota, Minneapolis, MN :88 p.		
CAS No: 10034-96-5 EC No:	Aquatic plants			

12.2 Persistence and degradability.

No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potencial.

No information is available regarding the bioaccumulation of the substances present.

12.4 Mobility in soil.

No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.
Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.

Land: Transport by road: ADR, Transport by rail: RID.

Transport documentation: Consignment note and written instructions

Sea: Transport by ship: IMDG.

Transport documentation: Bill of lading

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 8 of 10
Print date: 04/09/2018

Air: Transport by plane: ICAO/IATA.
Transport document: Airway bill.

14.1 UN number.
UN No: UN3082

14.2 UN proper shipping name.

Description:

ADR: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS MANGANESE(II) SULFATE MONOHYDRATE / ZINC SULFATE HEPTAHYDRATE), 9, PG III

IMDG: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS MANGANESE(II) SULFATE MONOHYDRATE / ZINC SULFATE HEPTAHYDRATE), 9, PG III

ICAO: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS MANGANESE(II) SULFATE MONOHYDRATE / ZINC SULFATE HEPTAHYDRATE), 9, PG III

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

14.4 Packing group.
Packing group: III

14.5 Environmental hazards.
Marine pollutant: No

14.6 Special precautions for user.
Labels: 9



Hazard number: 90
ADR LQ: 5 L
IMDG LQ: 5 L
ICAO LQ: 30 kg B

Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR.
Transport by ship, FEm – Emergency sheets (F – Fire, S – Spills): F-A,S-F
Proceed in accordance with point 6.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.
The product is not transported in bulk.

SECTION 15: REGULATORY INFORMATION.

15.1 Safety, health and environmental regulations/legislation specific for the mixture.

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

The product is not affected by Directive 2012/18/EU (SEVESO III).

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1
Revision date: 04/09/2018

Page 9 of 10
Print date: 04/09/2018

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Classification codes:

Acute Tox. 4 [Oral] : Acute toxicity (Oral), Category 4
Aquatic Acute 1 : Acute toxicity to the aquatic environment, Category 1
Aquatic Chronic 1 : Chronic effect to the aquatic environment, Category 1
Aquatic Chronic 2 : Chronic effect to the aquatic environment, Category 2
Aquatic Chronic 3 : Chronic effect to the aquatic environment, Category 3
Eye Dam. 1 : Serious eye damage, Category 1
Eye Irrit. 2 : Eye irritation, Category 2
STOT RE 2 : Specific target organ toxicity following a repeated exposure, Category 2
Skin Irrit. 2 : Skin irritant, Category 2

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CEN: European Committee for Standardization.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Code for Dangerous Goods.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>
<http://echa.europa.eu/>
Regulation (EU) 2015/830.
Regulation (EC) No 1907/2006.
Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration,

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



PC231-QUICELUM

Version: 1

Revision date: 04/09/2018

Page 10 of 10

Print date: 04/09/2018

Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.

-Continued on next page.-