


SAFETY DATA SHEET (in accordance with Regulation (EU) 2020/878)		 Artal 125 years SMART AGRICULTURE 1895-2020
DULZEE		
Versión: 1 Versión: 5 (replaces version 4)	Date of compilation: 30/10/2008 Revision date: 08/03/2023	Page: 1/8 Print date: 20/03/2024

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

1.1 Product identifier.

Product Name: **DULZEE**
Product Code: **MSDS00035**
UFI: **J030-M0FM-7000-YXD1**

1.2 Relevant identified uses of the substance or 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: **Francisco R. Artal S.L.**
Address: **C/ Villa de Madrid, 14**
City: **46988 - Poligono Industrial Fuente del Jarro (Paterna)**
Province: **Valencia**
Telephone: **(34) 96 134 03 65**
E-mail: **infoartal@artal.net**
Web: **www.artal.net**

1.4 Emergency telephone number: (34) 96 134 03 65 (Only available during office hours; Monday-Friday; 08:00-18:00)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.

In accordance with Regulation (EU) No 1272/2008:
Eye Irrit. 2 : Causes serious eye irritation.

2.2 Label elements.

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

Pictograms:



Signal Word:

Warning

Hazard statements:

H319 Causes serious eye irritation.

Precautionary statements:

P102 Keep out of reach of children.
P264 Wash ... thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
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.


2.3 Other hazards.

The mixture does not contain substances classified as PBT.

The mixture does not contain substances classified as vPvB.

The mixture does not contain any endocrine disrupting properties substances.

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

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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	Specifics concentration limits and Acute toxicity estimate
Index No: 017-013-00-2 CAS No: 10043-52-4 EC No: 233-140-8 Registration No: 01-2119494219-28-XXXX	calcium chloride	10 - 25 %	Eye Irrit. 2, H319	*
Index No: 030-006-00-9 CAS No: 7446-20-0 EC No: 231-793-3 Registration No: 01-2119474684-27-xxxx	zinc sulphate heptahydrate)	0.1 - 0.25 %	*	*
CAS No: 12054-85-2 EC No: 234-722-4 Registration No: 01-2119498057-28-xxxx	[2] ammonium molybdate(VI) tetrahydrate	0 - 2.5 %	*	*

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

[2] Substance with a national workplace exposure limit (see section 8.1).

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.

Eye contact.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Don't let the person to rub the affected eye.

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.

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. Cover the affected area with a dry sterile bandage. Protect the affected area from pressure or friction.


SECTION 5: FIREFIGHTING MEASURES.

The product is NOT classified as flammable, in case of fire the following measures should be taken:

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

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Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance or mixture.

Special risks.

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 boots.

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 not classified as hazardous for the environment, avoid spillage as much as possible.

6.3 Methods and material for containment and cleaning up.

Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.

Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations (see section 13).

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.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. 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 25 ° 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-authorized 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).

Fertilizer.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Work exposure limit for:

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Name	CAS No.	Country	Limit value	ppm	mg/m ³
ammonium molybdate(VI) tetrahydrate	12054-85-2	United States ^[1] (Cal/OSHA)	Eight hours		0.5 (Soluble compounds, as Mo) 10 (Insoluble Compounds - Total dust, as Mo) 3 (Insoluble Compounds (resp.), as Mo)
			Short term		
		United States ^[2] (OSHA)	Eight hours		5 (Soluble compounds, as Mo) 15 (Insoluble Compounds - Total dust, as Mo)
			Short term		

^[1] California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).

^[2] Occupational Safety and Health Administration, United States Department of Labor. Permissible Exposure limits (PELs), California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Limits (PELs).

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:	<p>PPE: Protective gloves.</p> <p>Characteristics: «CE» marking, category II.</p> <p>CEN standards: EN 374-1, EN 374-2, EN 374-3, EN 420</p> <p>Maintenance: Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.</p> <p>Observations: Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.</p> <p>Material: PVC (polyvinyl chloride) Breakthrough time (min.): > 480 Material thickness (mm): 0,35</p>		
Eye protection:	<p>PPE: Protective goggles against particle impacts.</p> <p>Characteristics: «CE» marking, category II. Eye protector against dust and smoke.</p> <p>CEN standards: EN 165, EN 166, EN 167, EN 168</p> <p>Maintenance: Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions.</p> <p>Observations: Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.</p>		
Skin protection:	<p>PPE: Work footwear.</p> <p>Characteristics: «CE» marking, category II.</p> <p>CEN standards: EN ISO 13287, EN 20347</p> <p>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.</p> <p>Observations: Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident</p>		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Physical state: Liquid

Colour: Purple

Odour: Characteristic

Odour threshold: Not applicable (Not relevant for this type of product)

Melting point: Not applicable (Not relevant for this type of product)

Freezing point: Not applicable (Not relevant for this type of product)


Boiling point or initial boiling point and boiling range: Not applicable (Not relevant for this type of product)

Flammability: Not applicable (Not relevant for this type of product)

Lower explosion limit: Not applicable (Not relevant for this type of product)

Upper explosion limit: Not applicable (Not relevant for this type of product)

Flash point: Not applicable (Not relevant for this type of product)

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Auto-ignition temperature: Not applicable (Not relevant for this type of product)
Decomposition temperature: Not applicable (Not relevant for this type of product)
pH: 3,5 (100%) (pH Meter/potentiometric/electrometric method) ± 1
Kinematic viscosity: Not applicable (Not relevant for this type of product)
Solubility: Not applicable (aqueous solution).
Hydrosolubility: Not applicable (aqueous solution).
Liposolubility: Not applicable (Not relevant for this type of product)
Partition coefficient n-octanol/water (log value): Not applicable (Not relevant for this type of product)
Vapour pressure: Not applicable (Not relevant for this type of product)
Absolute density: Not applicable (Not relevant for this type of product)
Relative density: 1,45 (Oscillating densitimer) ± 0,05 g/cm³
Relative vapour density: Not applicable (Not relevant for this type of product)
Particle characteristics: Not applicable (Not relevant for this type of product)

9.2 Other information

Viscosity: Not applicable/Not available due to the nature/properties of the product
Explosive properties: Not applicable/Not available due to the nature/properties of the product
Oxidizing properties: Not applicable/Not available due to the nature/properties of the product
Dropping point: Not applicable/Not available due to the nature/properties of the product
Blink: Not applicable/Not available due to the nature/properties of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Unstable in contact with:

- Bases.

10.3 Possibility of hazardous reactions.

Neutralization can occur on contact with bases.

10.4 Conditions to avoid.

- Avoid contact with bases.

10.5 Incompatible materials.

Avoid the following materials:

- Bases.

10.6 Hazardous decomposition products.

Depending on conditions of use, can be generated the following products:

- Corrosive vapors or gases.

SECTION 11: TOXICOLOGICAL INFORMATION.


IRRITANT MIXTURE. Splashes in the eyes can cause irritation.

11.1 Information on hazard classes as defined in Regulation (EC) N° 1272/2008.

There are no tested data available on the product.

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.

- a) acute toxicity; Not conclusive data for classification.
- b) skin corrosion/irritation; Not conclusive data for classification.
- 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.

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- 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; Not conclusive data for classification.
- j) aspiration hazard; Not conclusive data for classification.

11.2 Information on other hazards.

Endocrine disrupting properties

This product does not contain components with endocrine-disrupting properties with effects on human health.

Other information

There is no information available on other adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
ammonium molybdate(VI) tetrahydrate CAS No: 12054-85-2 EC No: 234-722-4	Fish			
	Aquatic invertebrates	LC50	Crustaceans	1020 mg/l (48 h) [1]
	Aquatic plants			

[1] Abbott, O.J. 1977. The Toxicity of Ammonium Molybdate to Marine Invertebrates. Mar.Pollut.Bull. 8(9):204-205

12.2 Persistence and degradability.

No information is available regarding the biodegradability of the substances present.
No information is available on the degradability of the substances present.
No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

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 Endocrine disrupting properties.

This product doesn't contain components with environmental endocrine disrupting properties.


12.7 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.

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SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number or ID number.
Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR/RID: Not classified as hazardous for transport.

IMDG: Not classified as hazardous for transport.

ICAO/IATA: Not classified as hazardous for transport.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): Not applicable.

14.6 Special precautions for user.

Transportation is not dangerous.

14.7 Maritime transport in bulk according to IMO instruments.

Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

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

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:

H319 Causes serious eye irritation.

Classification codes:

Acute Tox. 4 : 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

Eye Dam. 1 : Serious eye damage, Category 1


Eye Irrit. 2 : Eye irritation, Category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards On basis of test data

Health hazards Calculation method

Environmental hazards Calculation method

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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:

CEN: European Committee for Standardization.
 EC50: Half maximal effective concentration.
 PPE: Personal protection equipment.
 LC50: Lethal concentration, 50%.
 LD50: Lethal dose, 50%.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>
<http://echa.europa.eu/>
 Regulation (EU) 2020/878.
 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) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemical substances and mixtures (REACH).

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.