

SAFETY DATA SHEET

according to Commission Regulation (EU) 2020/878

FLOIXEM® D



	Precautionary advice(s) (Response)
	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..
	Precautionary Statement(s) (Disposal)
	P501 Dispose of contents/container to hazardous or special waste collection point
Component(s) determining the hazard for labeling	
Citric acid	

2.3. Other dangers

The product contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

The product does not contain endocrine disrupting components that have an effect on human health.

SECTION 3. COMPOSITION/INFORMATION ON COMPONENTS

3.1. Substances

Not applicable.

3.2. Mixtures

Chemical description: Various product/s

Components:

According to Annex II of Regulation (EC) No. 1907/2006 (point 3), the product presents:

Chemical name	CAS No.	NOCE	Content	Pictogram	Phrases
Citric acid	77-92-9	201-069-1	<50%	GHS07	H319 H335

See sections 11, 12 and 16 for more information about the dangers of the substances.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid

Symptoms as a consequence of poisoning may occur after exposure, so in case of doubt, direct exposure to the chemical or persistent discomfort seek medical attention, showing the SDS of this product.

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If inhaled:

In case of symptoms of poisoning, remove the affected person from the exposure area and provide them with fresh air. Seek medical attention if symptoms worsen or persist.

On skin contact:

Remove contaminated clothing and shoes, clean the affected area with water and neutral soap. In case of serious illness, seek medical attention. If the product causes burns, clothing should not be removed, as it could worsen the injury if stuck to the skin. If blisters appear, do not burst them, as it could increase the risk of infection.

On eye contact:

Rinse eyes with plenty of water at room temperature for at least 15 minutes. Avoid rubbing of closing the eyes. If wearing contact lenses, remove it if they are not stuck to the eyes, as it could lead to worse damages. In any case, after washing, a medical professional should be contacted with the Product Safety Data Sheet.

On accidental ingestion/inhalation:

Do not induce vomiting. In case of vomit, keep the head tilted forwards to avoid inhaling. Have the victim rest. In case of unconsciousness, administer nothing orally until medical supervision. Rinse your mouth and throat, as they may have been affected by the ingestion.

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

The acute and delayed effects are those indicated in sections 2 and 11.

4.3. Indication any medical attention and special treatments that should be dispensed immediately

Symptomatic treatment.

SECTION 5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:

The product is not flammable under normal conditions of storage, handling and use. In case of ignition due to improper handling, storage or use, preferably use multi-purpose powder extinguishers (ABC powder), water spray, carbon dioxide or foam according to local laws.

Unsuitable extinguishing media:

Not relevant.

5.2. Specific hazards arising from the substance or mixture

As a consequence of combustion or thermal decomposition, reaction subproducts are generated, which can be toxic and, therefore, entail a health risk.

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FLOIXEM® D**5.3. Advise for fire-fighters**

Depending on the magnitude of the fire, it could be necessary the use of full protective clothing and a self-contained breathing apparatus. A minimum of emergency installations or response elements (fire blankets, first-aid kit, etc.) should be ready according to local laws.

Additional provisions:

Act according to the Site Emergency Plan and the Fact Sheets about response to accidents and other emergencies. Actuar conforme el Plan de Emergencia Interior y las Fichas Informativas sobre actuación ante accidentes y otras emergencias. Eliminate any ignition source. In case of fire, refrigerate the containers and storing tanks of products which could ignite, explode or BLEVE as a consequence of high temperatures. Avoid spilling into the aquatic environment the products used for fire extinguishing

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency services personnel:**

Isolate leaks when it does not entail an additional risk for the persons doing the task. When exposed to a potential product spill, the use of personal protection elements is mandatory (see section 8). Evacuate the area and keep unprotected persons away.

For emergency personnel:

Always wear protection equipment. Keep unprotected persons away. See section 8.

6.2. Precautions related to the environment

Product not classified as dangerous for the environment. Keep the product away from drains and surface or underground waters.

6.3. Methods and material for containment and cleaning up**Recommendations:**

Absorb spillages with sand or inert absorbent and transfer to a safe place. It is not absorbed in sawdust or other combustible absorbents. See also section 13 for any consult regarding disposing.

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7. HANDLING AND STORAGE**7.1. Precautions for safe handling**

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FLOIXEM® D**A.- General precautions**

Official occupational risk prevention regulations on manual handling of loads and chemical products must be known. Keep containers tightly closed. Avoid free discharge from container. Keep clean, ordered and dispose of the product in a safe way (see section 6).

B.- Technical recommendations for fires and explosions prevention

Non-flammable product under normal conditions of storage, handling and use. Slow transfer is recommended to avoid electrostatic charges affecting flammable products. See section 10 for conditions and materials to be avoided.

C.- Technical recommendations for ergonomic and toxicological risk prevention

For exposure control, see section 8. Do not eat, drink or smoke in working areas; wash hands after each use and remove contaminated clothes and protection equipment before entering eating areas.

D.- Technical recommendations for environmental risk prevention

It is recommended to have material for containment and cleanup around the product (see section 6.3).

7.2. Conditions for safe storage, including possible incompatibilities**A.- Technical storage measures**

Minimum temperature: 5°C
Maximum temperature: 30°C
Maximum time: 24 months

B.- General storage conditions.

Store in the original containers tightly closed, in case of transfer make sure that the container material is compatible with the product, recommended materials: HDPE, PP. Do not use metal containers.

Avoid direct sunlight, heat sources, radiations, static electricity and contact with food. See section 10.4 and 10.5. for more information.

7.3. Specific final uses

Except for the specified instructions, there is no other necessary recommendation regarding the uses of this product.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

It does not contain substances with occupational exposure limit values.

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8.2. Exposure controls



A.- General safety and hygiene measures in the work environment

In accordance with the priority order for occupational exposure control the localized extraction of the working area is recommended as a collective protection measure to avoid exceeding occupational exposure limits. If personal protective equipment is used, it should have the CE marking in accordance with current legislation. For more information regarding personal protective equipment (storage, use, cleaning, type of protection, etc.), see the information leaflet provided by the manufacturer. The instructions detailed in this point refer to pure product. Safety measures for diluted product may vary depending on the degree of dilution, use, application method, etc. In order to determine the obligation to install emergency showers and/or eyebath in warehouses, regulations referring to storage of chemical products should be followed. For more information, see points 7.1 and 7.2. This information is a recommendation. Risk prevention services should correct the information, it is unknown if the company has additional prevention measures or if they have been included in the appropriate risk evaluation.

B.- Respiratory protection

It is necessary to wear protection equipment if fog is generated or if occupational exposure limits apply (see section 8.1). Use a respiratory protection mask with Gas filter for organic gases/vapours (EN 136/140/141/145/143/149). Under normal conditions, respiratory protection is not required.

C.- Specific hand protection

Pictogram	PPE	Marking	CEN Standards	Notes
 Mandatory hand protection	Protective gloves against minor hazards			Replace gloves at any sign of deterioration. For prolonged exposure to the product for professional/industrial users, the use of CE III gloves according to EN ISO 21420 and EN ISO 374 is recommended.

D.- Eye and face protection



Pictogram	PPE	Marking	CEN Standards	Notes
 Mandatory face protection	Panoramic goggles against splash and/or projections		EN 166 EN ISO 4007	Clean daily and sanitize periodically according to the instructions of the manufacturer. Recommended in case of splashing risk.

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E.- Body protection

Pictogram	PPE	Marking	CEN Standards	Notes
	Work clothes			Replace when there are signs of deterioration. For long exposure to the product by professional/industrial users, the use of CE III is recommended according to the regulations EN ISO 6529, EN ISO 6530, EN ISO13688, EN 464.
	Non slip footwear		EN ISO 20347	Replace when there are signs of deterioration. For long exposure to the product by professional/industrial users, the use of CE III is recommended according to the regulations EN ISO 20345y EN 13832-1

F. – Complementary emergency measures

Emergency Measure	Standards	Emergency Measure	Standards
 Emergency Ehower	ANSI Z358-1 ISO 3864-1 ISO 3864-4	 Eyebath	DIN 12 899 ISO 3864-1 ISO 3864-4

Environmental exposure controls:

In accordance with the European legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see section 7.1.D.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

See the product’s technical datasheet/specifications sheet for more information.

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Physical state at 20 °C:	Liquid
Appearance:	Transparent fluid
Color:	Red
Odor:	Odorless
Odor threshold:	Not relevant *
Volatility:	
Boiling point at atmospheric pressure:	approx. 104°C
Vapor pressure at 20 °C:	16 mm Hg at 20°C
Vapor pressure at 50 °C:	Not relevant *
Evaporation rate at 20 °C:	Not relevant *
Characterization of the product:	
Density at 20 °C:	1.20-1.25 g/cc
Relative density at 20 °C:	Not relevant *
Dynamic viscosity at 20 °C:	Not relevant *
Cinematic viscosity at 20 °C:	Not relevant *
Cinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	approx. 1
Vapor density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water at 20 °C:	Not relevant *
Solubility in water at 20 °C:	Unlimited
Solubility property:	Soluble in polar solvents
Decomposition temperature:	175°C Anhydrous substance
Melting point/freezing point:	-approx. 0°C
Flammability:	
Flash point:	Not relevant *
Flammability (solid, gas):	Not relevant *
Ignition temperature:	Not relevant *
Lower flammability limit:	Not relevant*
Upper flammability limit:	Not relevant
Explosiveness (Solid):	
Lower explosive limit:	Not relevant *
Upper explosion limit:	Not relevant *
Characteristics of the particles:	
Equivalent average diameter:	Not relevant *

* Not relevant due to the nature of the product, not providing characteristic information regarding its danger.

9.2. Other information

Information about physical hazard types:

Exploding properties:	Not relevant *
Comburent properties:	Not relevant *
Metal corrosion:	Not relevant *

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Ignition heat:	Not relevant *
Aerosols-total percentage (in mass) of flammable components:	Not relevant *
Other safety characteristics:	
Surface tension at 20 °C:	Not relevant *
Refraction index:	Not relevant *

* Not relevant due to the nature of the product, not providing characteristic information regarding its danger.

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions are expected if the technical storing instructions for chemical products are followed (see section 7).

10.2. Chemical stability

Stable under normal storing, handling and use conditions.

10.3. Possibility of dangerous reactions

Possible violent reactions with alkali metals, strong oxidants, bases and reducing agents.

10.4. Conditions to avoid

Exposure to high temperatures may cause decomposition of the product. Gas generation during decomposition may generate pressure in closed systems.

For handling and storing at room temperature:

Impact and Friction	Contact with Air	Heating	Sunlight
Not applicable	Not applicable	Avoid strong heating	Avoid direct incidence

10.5. Incompatible materials

Do not use metal containers

Acids, bases and oxidants	Water	Oxidizing materials	Combustible materials
Avoid acids, bases, strong oxidants and reducing agents	Not applicable	Avoid direct incidence	Not applicable

10.6. Hazardous decomposition products

No information available.

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FLOIXEM® D**SECTION 11. TOXICOLOGICAL INFORMATION****11.1. Information on the hazard classes defined in Regulation (EC) No 1272/2008****A.- Ingestion (acute effect):**

- Acute toxicity: Based on available data, the classification criteria are not met. For more information see section 3.
- Corrosivity/Irritability: Based on the available data, the classification criteria are not met. For more information see section 3.

B.- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met. For more information see section 3.
- Corrosivity/Irritability: Based on the available data, the classification criteria are not met. For more information see section 3.

C.- Contact with skin and eyes (acute effect):

- Skin contact: Based on available data, the classification criteria are not met. For more information see section 3.
- Eye contact: Causes serious eye irritation.

D.- CMR effects (Carcinogenicity, Mutagenicity and Reproductive Toxicity):

- Carcinogenicity: Based on available data, the classification criteria are not met as it does not present substances classified as dangerous for this effect. For more information see section 3. IARC: Not relevant
- Mutagenicity: Based on available data, the classification criteria are not met as it does not present substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met as it does not present substances classified as dangerous for this effect. For more information see section 3.

E.- Sensitization effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not present substances classified as dangerous with sensitizing effects above the limits set out in point 3.2 of Regulation (EC) 2020/878. For more information see sections 2, 3 and 15.
- Cutaneous: Based on available data, the classification criteria are not met, and it does not contain substances classified as dangerous for this effect. For more information see section 3.

F.- Specific target organ toxicity (STOT)-single exposure:

Based on available data, the classification criteria are not met. For more information see section 3.

G.- Specific target organ toxicity (STOT)-repeated exposure:

-Toxicity specific in certain organs (STOT)-repeated exposure: Based on available data, the classification criteria are not met, and it does not contain substances classified as dangerous for this effect. For more information see section 3.

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- Skin: Based on the available data, the classification criteria are not met, representing substances classified as dangerous for this effect. For more information see section 3.

H.- Danger due to aspiration:

Based on available data, the classification criteria are not met, and it does not contain substances classified as dangerous for this effect. For more information see section 3.

Substance-specific toxicological information:

Product	Acute toxicity		Gender
Citric acid CAS: 77-92-9 EC: 201-069-1	LD50 oral	5400 mg/Kg	Mouse
	LD50 dermal	>2000 mg/Kg	Rat
	LC50 inhalation	Not available	-

11.2. Information of other hazards

This product does not contain endocrine disrupting components that have effects on human health.

No information on other adverse health effects is available.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Specific aquatic toxicity of substances:

Product	Toxicity	Concentration	Species
Citric acid CAS: 77-92-9 EC: 201-069-1	CL50 (48 h) – Fish	440 mg/l	Leuciscus idus melanotus
	EC50 (24 h) – Aquatic invertebrates	1535 mg/l	Daphnia Magna
	NOEC – Aquatic plants	425 mg/l	Freshwater algae

Material not classified as harmful to aquatic organisms (LC50/EC50/IC50 greater than 100 mg/L in most sensitive species).

12.2. Persistence and degradability

Based on the individual components the material is easily biodegradable. Passes OECD tests for easy biodegradability. The material is ultimately biodegradable. It reaches more than 85% mineralization in OECD inherent biodegradability tests.

12.3. Bioaccumulative potential

The estimated potential bioconcentration according to its individual components is low (BCF < 100 or log Kow < 3).

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Substance specific information:

Product	Bioaccumulative potential	
Citric acid CAS: 77-92-9 EC: 201-069-1	BCF	3.2
	Log Pow	-1.72
	Potential	Low

12.4. Mobility on the ground

Substance-specific information

Product	Absorption/Desorption		Volatility	
Citric acid CAS: 77-92-9 EC: 201-069-1	Koc	1500	Henry	1.9e-11 Pa·m ³ /mol
	Conclusion	Low	Conclusion	Low volatility

12.5. Results of PBT and vPvB assessment

The product does not contain components considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

12.6. Endocrine disrupting properties

The product does not contain endocrine disrupting components that have an effect on human health.

12.7. Other adverse effects

Not concerned by Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on Substances that Deplete the Ozone Layer.

No information is available on other adverse effects on the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Code	Description	Waste type (Regulation (EU) No. 1357/2014)
	It is not possible to assign a specific code, as it depends on the user's intended use.	Hazardous

Type of waste (Regulation (EU) No. 1357/2014):

HP4 Irritant -Skin irritation and eye damage

Waste management (disposal and recovery):

Consult the authorized waste manager about the operations of assessment and disposal in accordance with Annex I and Annex II (Directive 2008/98/EC). According to codes 15 01

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(2014/955/EU), if the container has been in direct contact with the product, it will be processed in the same way as the product. If not, it will be processed as a non-hazardous waste. See point 6.2.

Legal provisions on waste management:

In accordance with Annex II of Regulation (EC) NO. 1907/2006 (REACH), these are the European provisions related to waste management: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) NO. 1357/2014.

SECTION 14. TRANSPORT INFORMATION

Not classified as a dangerous good under transport regulations.

	ADR/RID	DNA	IMDG	IATA/ICAO
14.1. UN number or ID number	-	-	-	-
14.2. United Nations proper shipping name	-	-	-	-
14.3. Transport hazard class(es)	-	-	-	-
14.4. Packing group	-	-	-	-
14.5. Environmental hazards	-	-	-	-

14.6. Special precautions for users

See sections 6, 7 and 8.

14.7. Maritime transport in bulk according to the IMO instruments

Not applicable

SECTION 15. REGULATORY INFORMATION

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

- Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII of the REACH Regulation): Not relevant.
- List of substances subject to authorisation (Annex XIV of REACH Regulation): Not relevant.
- Regulation (EU) No 649/2012 concerning the export and import of dangerous chemicals: Not relevant.
- Regulation (EU) No 2019/1021 on persistent organic pollutants: Not relevant.
- Regulation (EC) 1005/2009 on substances that deplete the ozone layer: Not relevant.

Seveso III:

Not relevant

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**Particular provisions on human and environmental protection:**

It is recommended to use the compiled information in this Safety Data Sheet as entry data for a risk evaluation of the local circumstances with the aim of establishing necessary measures to prevent handling, use, storage and disposal risks.

Other legislations:

Regulation EC No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and subsequent amendments.

Regulation EC No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006 and subsequent amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16. OTHER INFORMATION**Legislation applicable to safety data sheets:**

This Safety Data Sheet has been developed according to ANNEX II-Guide to the compilation of Safety Data Sheets of Regulation (EC) NO. 1907/2006 (REGULATION (EU) 2020/878 OF THE COMMISSION).

Modifications regarding the previous Safety Data Sheet affecting risk management measures:

Update according to REGULATION (EU) 2020/878 OF THE COMMISSION.

GHS hazard statements included in section 2:

H319 - Causes serious eye irritation.

GHS hazard statements included in section 3:

The indicated statements do not refer to the product; they are only informative and refer to the individual components included in section 3.

Regulation n°1272/2008 (CLP):

Eye Irrit. 2: H319 - Causes serious eye irritation.

Advice regarding training:

A minimum of occupational risk prevention training for the personnel handling this product is recommended in order to ease the comprehension and interpretation of this Safety Data Sheet and the labeling of the product.

Main bibliographical sources:

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<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

SDS: Safety Data Sheet

CAS: Chemical Abstracts Service – Division of the American Chemical Society

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective Concentration 50

vPvB: Very persistent/very bioaccumulative

PBT: Persistent/bioaccumulative/toxic

STOT: Specific target organ toxicity

NOEC: No Observable Effects Concentration

BCF: Bioconcentration Factor

IARC: International Cancer Research Center

REACH: Registration, evaluation, authorization and restriction of chemical substances

ADR: European Agreement Concerning the International Carriage of Goods by Road

RID: European Agreement Concerning the International Carriage of Dangerous Goods by Rail

ADN: European agreement on the international transport of dangerous goods by inland waterways

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization