

SAFETY DATA SHEET

Jacalin lyophilized powder

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

1.1. Product identifier

Trade name

Jacalin lyophilized powder

Other names / Synonyms

Artocarpus integrifolia lectin

Product no.

05-0133

Document number

34-0500

▼ Unique formula identifier (UFI)

Q4UF-F4R4-X00T-FP88

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

Relevant identified uses of the substance or mixture

Laboratory use

Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

▼ Company and address

Medicago AB

Danmarks-Berga 13

74176 Uppsala

Sweden

+46 18 56 11 80

www.medicagogroup.com

▼ E-mail

qa@medicagogroup.com

Revision

23/10/2025

SDS Version

3.0

Date of previous version

2018-09-06 (Doc. no. 24-0327, version 2)

1.4. Emergency telephone number

In urgent situations: Call 112 and request the poison information centre. (24h service)

In less severe situations: Call 010-456 6700 (24h service)

See also section 4 "First aid measures".

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP).

2.1. Classification of the substance or mixture

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Irrit. 2; H319, Causes serious eye irritation.

Resp. Sens. 1; H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

May cause an allergic skin reaction. (H317)

Causes serious eye irritation. (H319)

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (H334)

Precautionary statement(s)

▼ General

Not applicable.

Prevention

Avoid breathing dust. (P261)

Wear eye protection/protective gloves. (P280)

[In case of inadequate ventilation] wear respiratory protection. (P284)

Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340)

If experiencing respiratory symptoms: Call a POISON CENTER/doctor (P342+P311)

▼ Storage

Not applicable.

▼ Disposal

Dispose of contents/container in accordance with local regulation. (P501)

Hazardous substances

Jacalin

▼ Additional labelling

UFI: Q4UF-F4R4-X00T-FP88

2.3. Other hazards

▼ Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: Composition/information on ingredients

3.1. ▼ Substances

Product/substance	Identifiers	% w/w	Classification	Note
Jacalin	CAS No.: EC No.: REACH: Index No.:	90-100%	Skin Sens. 1, H317 Eye Irrit. 2, H319 Resp. Sens. 1, H334	

3.2. Mixtures

Not applicable. This product is a substance.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Not applicable.

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

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.

Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

High amounts of dust can cause coughing and general irritation of the respiratory airways.

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

If eye irritation persists: Get medical advice/attention.

If skin irritation or rash occurs: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. ▼ Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 112, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Avoid direct contact with spilled substances.
- Ensure adequate ventilation, especially in confined areas.
- Contaminated areas may be slippery.

6.2. Environmental precautions

- Avoid discharge to lakes, streams, sewers, etc.
- Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

- Collect spills carefully. Moist the material with water in order to prevent the formation and propagation of dust.
- Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

- See section 13 "Disposal considerations" on handling of waste.
- See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Avoid direct contact with the product.
- Smoking, drinking and consumption of food is not allowed in the work area.
- See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

- Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Powder trickling out onto the floor or onto other containers must be prevented.

Recommended storage material

- Always store in containers of the same material as the original container.

Storage conditions

- Freezer , -18 to -24°C

Incompatible materials

- Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

- This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

- No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

- No data available.

PNEC

- No data available.

8.2. ▼ Exposure controls

- Apply general control to prevent unnecessary exposure

General recommendations

- Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

- There are no exposure scenarios implemented for this product.

Exposure limits

- Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

- Apply standard precautions during use of the product. Avoid inhalation of gas or dust.
- Airborne gas and dust concentrations must be kept at a minimum. Provide efficient mechanical ventilation. If not possible use suitable respiratory equipment.

▼ Hygiene measures

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
S/SL	P2	White	EN149




▼ Skin protection

Recommended	Type/Category	Standards
No special when used as intended.	-	-


Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	-	-	EN374-2



Eye protection

Type	Standards
Safety glasses	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Powder

Colour

White

▼ Odour / Odour threshold

No data available.

pH

No data available

Density (g/cm³)

No data available

Relative density

No data available

Kinematic viscosity

Testing not relevant or not possible due to nature of the product.

Particle characteristics

No data available

Phase changes

Melting point/Freezing point (°C)

Testing not relevant or not possible due to nature of the product.

Softening point/range (°C)

Does not apply to solids.

Boiling point (°C)

Testing not relevant or not possible due to nature of the product.

Vapour pressure

Testing not relevant or not possible due to nature of the product.

▼ Relative vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

No data available

Data on fire and explosion hazards**Flash point (°C)**

Testing not relevant or not possible due to nature of the product.

Flammability (°C)

No data available

Auto-ignition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Lower and upper explosion limit (% v/v)

Does not apply to solids.

Solubility**Solubility in water**

Soluble

n-octanol/water coefficient (LogKow)

No data available

Solubility in fat (g/L)

No data available

9.2. Other information**Evaporation rate (n-butylacetate = 100)**

Testing not relevant or not possible due to nature of the product.

Other physical and chemical parameters

No data available.

Molecular Weight (g/mol)

66000

Oxidizing properties

No data available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. ▼ Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

▼ Acute toxicity

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

▼ Skin corrosion/irritation

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

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitisation

May cause an allergic skin reaction.

▼ Germ cell mutagenicity

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

▼ Carcinogenicity

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

▼ Reproductive toxicity

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

▼ STOT-single exposure

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

▼ STOT-repeated exposure

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

▼ Aspiration hazard

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

11.2. Information on other hazards

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

▼ Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

Other information

None known.

SECTION 12: Ecological information

12.1. ▼ Toxicity

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

12.2. ▼ Persistence and degradability

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

12.3. ▼ Bioaccumulative potential

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

12.4. Mobility in soil

No data available.

12.5. ▼ Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. ▼ Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. ▼ Waste treatment methods

Product is not covered by regulations on dangerous waste.

Waste regulation (SFS 2020:614).

▼ EWC code

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MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other informatio n:
ADR	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

▼ Additional information

Although this product is environmentally hazardous, the environmentally hazardous substance mark has been omitted as the product is supplied in packaging with a maximum quantity of 5 L / 5 kg.

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14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not work with this product. This does not apply if the working task is:

- performed by young people who have completed upper secondary education or equivalent education for the task or

- included in teaching that is located in a school premises or other place that is specially arranged for teaching, or

- included in supervisor-led internships for young people.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

Not applicable.

Additional information

Not applicable.

▼ Sources

The Swedish Work Environment Authority's regulations and general guideline (AFS 2023:2) on planning and organizing work environment work - basic obligations for you with employer responsibility

Waste regulation (SFS 2020:614).

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 (CLP).

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).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H317, May cause an allergic skin reaction.

H319, Causes serious eye irritation.

H334, May cause allergy or asthma symptoms or breathing difficulties if inhaled.

▼ Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).

The safety data sheet is validated by

Elisabet Vikeved

▼ Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: SE-en