

SAFETY DATA SHEET

PHACT™ MS0001N

Revision Date: July 30, 2025

Revision No.: 3

Section 1. Identification of the substance and the company/undertaking

1.1 Identification

Product Name	MS0001N
Trade name	PHACT
CAS No.	125495-90-1

1.2 Product Use

Biopolymer (for industrial processing only)

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer	CJ Biomaterials 19 Presidential Way; Suite 301. Woburn, MA 01801 USA
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1.4 Emergency telephone number

82-31-8099-2323
+1 (339) 999-2693

Section 2. Hazard Identification

2.1 Hazards

Classification according to Regulation (EC) No 1272/2008	Acute toxicity, Oral (Category 4), H302 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
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2.2 Label Elements

Pictogram



Signal Word	Warning
Hazard statement(s)	
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation
Precautionary statement(s)	
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you fell unwell. Rinse mouth.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	None

Reduced Labeling (≤ 125 ml)

Pictogram



Signal Word	Warning
Hazard statement(s)	none
Precautionary statement(s)	None
Supplemental Hazard Statements	None

2.3 Other Hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3. Composition/Information on ingredients

3.1 Substances

Polyhydroxyalkanoate (P3HB4HB) CAS# 125495-90-1

Substance Type	Chemical Name	CAS No.	Weigh %
Polymers	Polyhydroxyalkanoate (P3HB4HB)	125495-90-1	> 65
Active Ingredient ¹	NA	NA	> 30
Talc	Hydrous magnesium silicate	14807-96-6	~ 1

¹The specific chemical identity and composition of this active ingredient has been withheld as a trade secret.

Section 4. First Aid Measures

4.1 Description of first-aid measures

General advice	Show this material safety data sheet to the doctor in attendance
If inhaled	After inhalation: fresh air
In case of skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
In case of eye contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Firefighting Measures

5.1 Flammability

Flash point	Not determined
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Auto-ignition Temp.

Not determined

5.2 Suitable (and unsuitable) extinguishing media

Suitable extinguishing media

Use water spray, dry chemical, carbon dioxide, or chemical foam.

Unsuitable extinguishing media

None known.

5.3 Specific hazards arising from the chemical

Reactivity in case of fire

Under fire conditions, hazardous fumes will be present: Carbon monoxide, Carbon dioxide.

5.4 Special protective equipment and precautions for fire-fighters

Protective equipment for firefighters

Wear a self-contained breathing apparatus in pressure-demand mode, MSHA/NIOSH (approved or equivalent), and full protective gear.

Section 6. Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact.

Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

Section 7. Handling and Storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

Storage class

Storage class (TRGS 510): 11: Combustible Solids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8. Exposure controls/personal protection**8.1 Control parameters**

Ingredients with workplace
control parameters

8.2 Personal protective equipment

Eyes

Wear appropriate protective eyeglasses described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

Body

Protective clothing

Respirators

Required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Section 9. Physical and chemical properties

9.1 Information of physical and chemical properties

Physical State	Solid
Color	No data available
Odor	No data available
Melting Point	140 – 180 °C
Freezing Point	Not applicable
Boiling Point	300 °C
Boiling Range	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Flash Point	No data available
Autoignition temperature	No data available
Decomposition Temperature	No data available
pH	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data Available

Water solubility	No data available
Partition coefficient: noctanol/ water	No data available
Upper/lower flammability or explosive limits	(min. explosible concentration) 160 g/m ³
Vapor Pressure	No data available
Vapor Density	No data available
Density	1.1 - 1.3 g/cm ³
Particle Characteristics	No data available
Explosive properties	No data available
Oxidizing properties	No data available

Section 10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical Stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of Hazardous Reaction

No data available

10.4 Conditions to Avoid

No information available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous Decomposition

In the event of fire: see section 5

Section 11. Physical and chemical properties

11.1 Information of physical and chemical properties

Acute toxicity (oral)	LD50 Oral - Mouse - 2.000 mg/kg
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Acute toxicity (dermal)	No data available
Acute toxicity (inhalation)	No data available
Skin Corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or Skin sensitization	No data available
Mutagenicity	Test Type: Rat Test system: Liver Remarks: DNA inhibition Species: Rat Application Route: Oral Remarks: DNA inhibition Species: Rat Application Route: Oral Remarks: Morphological transformation.
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT-single exposure	Inhalation - May cause respiratory irritation.
STOT-repeated exposure	No data available
Aspiration hazard	No data available

Section 12. Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulation

No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

No data available

Section 13. Disposable considerations

13.1 Waste treatment methods

No data available

Section 14. Transport information

14.1 UN number

ADR/RID: -

IMDG -

IATA -

14.2 UN proper shipping name

ADR/RID Not dangerous goods

IMDG Not dangerous goods

IATA Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID -

IMDG -

IATA -

14.4 Packaging group

ADR/RID -

IMDG -

IATA -

14.5 Environmental hazards

ADR/RID	No
IMDG Marine Pollutant	No
IATA	No

14.6 Special Precautions for User

Further Information	Not classified as dangerous in the meaning of transport regulations.
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Section 15. Regulatory information

(not meant to be all inclusive - selective regulations represented)

Regulatory requirements are subject to change and may differ between locations. It is the User's responsibility to ensure that all activities comply with all federal, state or provincial and local laws and regulations.

15.1 US regulations

TSCA List	Listed (PMN completed)
Food contact Substance	Listed FCN2330
SARA 313	Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals required to be reported under this Act or Title 40, Code of Federal Regulations, Part 372
SARA 311/312 Hazard/Risk Category	None
Chronic Health Hazards	None
Fire Hazards	None
Sudden Pressure Release Hazard	None
Reductive Hazards/Risks	None

15.2 EU regulations

EU Reach	Exemption
REACH Annex XVII	Not Listed
REACH Candidate List	Not Listed
REACH h Annex XIV (Authorization list)	Not Listed

REACH Annex PIC list (Authorization list)	Not Listed
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REACH Annex POP list (EU 2019/1021)	Not Listed
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Other information, restriction and prohibition regulations:	No registration number is given for this substance because it is a polymer exempted from registration according to the provision of Article 2(9) of REACH
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15.3 China regulations

IECSC	Listed
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GB4806.6-2016	Listed
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15.4 Japan regulations

ENCS	Listed
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FCM Positive list	Not listed
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15.5 Korea regulations

Korea REACH	Exemption
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Food Sanitation Act	Listed
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15.6 Other regulations

DSL (Canada)	Listed
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NZioC (New Zealand)	Not Listed(Compliant-certified exempt)
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AICIS (Australia)	Not Listed(Compliant-certified exempt)
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TCSCA (Taiwan)	PLC approval, Small quantity registration
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NOTICE

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