

REVOKE101/ REVOKE110/ REVOKE190/ REVOKE201/ REVOKE210/ REVOKE290

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 7/31/2023 Revision date: 7/31/2023 Version: 1.0



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

1.1. Product identifier

Product form : Substance
Trade name : REVOKE101/ REVOKE110/ REVOKE190/ REVOKE201/ REVOKE210/ REVOKE290

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Plastics

1.2.2. Uses advised against

Restrictions on use : No information available

1.3. Details of the supplier of the safety data sheet

Supplier

ZHEJIANG HISUN BIOMATERIALS CO., LTD.
Room 301-07, No.293 Gongren Road, Jiaojiang District, Taizhou City,
Zhejiang Province, P.R.China(318000)
T 0576-88827723 - F 0576-88827723
www.hisunplas.com

1.4. Emergency telephone number

Emergency number : 0576-88827723

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) : None
Signal word (CLP) : None
Hazard statements (CLP) : None.
Precautionary statements (CLP) : None.

2.3. Other hazards

Other hazards which do not result in classification : Potential dust explosion hazard. Dust may form explosive mixture in air.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

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SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Poly lactide polymers	CAS-No.: 9051-89-2 EC-No.: 618-575-7	≥ 98 – ≤ 100	Not classified

3.2. Mixtures

Not applicable.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Explosion hazard	: Dust could form explosive mixtures with air.
Hazardous decomposition products in case of fire	: Under fire conditions, hazardous fumes will be present: Carbon dioxide, Carbon monoxide, Acetaldehyde.

5.3. Advice for firefighters

Firefighting instructions	: Approach from upwind. Cool containers / tanks with spray water if possible. Eliminate all ignition sources if safe to do so.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid dust formation. Avoid contact with skin and eyes. Do not touch or walk on the spilled product. Do not breathe dust. Evacuate unnecessary personnel.
Measures in case of dust release	: No flames, no sparks. Eliminate all sources of ignition.

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6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak without risks if possible. Avoid dust formation.
Methods for cleaning up : Mechanically recover the product. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Avoid dust formation. Flush contaminated areas with plenty of water. Use non-sparking tools. Never return spills in original containers for possible later re-use.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Dust may form flammable and explosive mixture with air.
Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not handle until all safety precautions have been read and understood. Handle under inert gas. Keep only in original container. Protect from moisture. Wear personal protective equipment.
Handling temperature : < 50 °C
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Avoid contact with eyes, skin and clothing. Do not breathe dust. Wash contaminated clothing before reuse. Use good housekeeping practices during storage, transfer, handling, to avoid excessive dust accumulation.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Protect from moisture.
Incompatible materials : Water, humidity.
Storage temperature : < 50 °C
Storage area : Store according to local legislation.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Additional information : Contains no substances with occupational exposure limits

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8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Assess the risk of potentially explosive atmospheres and the need for explosion-proof equipment.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Safety glasses with side shields

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses with side shields	Dust		EN 166

8.2.2.2. Skin protection

Skin and body protection:

Long sleeved protective clothing

Skin and body protection	
Type	Standard
Long sleeved protective clothing	

Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Butyl rubber	6 (> 480 minutes)	0.5		EN 374

8.2.2.3. Respiratory protection

Respiratory protection:

No respiratory protection needed under normal use conditions. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Respiratory protection			
Device	Filter type	Condition	Standard
Dust mask	(FFP2)	Dust protection	EN 149

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: White. Opaque.
Appearance	: Pellet.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: 130 – 180 °C

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Freezing point	: Not applicable.
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not applicable.
Upper explosion limit	: Not applicable.
Flash point	: Not applicable.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: > 230 °C
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable.
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1.2 – 1.3 g/cm ³
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable.
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not applicable.
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Hazardous polymerisation: Will not occur. When mixed with air and exposed to an ignition source, dust may burn in the open air or explode if confined.

10.4. Conditions to avoid

Above a temperature of: 230°C / 446 °F. Protect from moisture. Avoid raising powdered materials into airborne dust, creating an explosion hazard.

10.5. Incompatible materials

Water, humidity.

10.6. Hazardous decomposition products

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

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SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

Poly lactide polymers (9051-89-2)

Viscosity, kinematic	Not applicable.
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
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11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

Poly lactide polymers (9051-89-2)

Persistence and degradability	Compostable and biodegradable according to EN 13432 and ASTM D6400.
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

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This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not re-use empty containers without proper cleaning or reconditioning.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

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Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

Poly lactide polymers (9051-89-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on the Canadian DSL (Domestic Substances List)

SECTION 16: Other information

Indication of changes:

Not applicable.

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
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Abbreviations and acronyms:

ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Version : 1.0
Issue date : 7/31/2023
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Data sources : ECHA reference. Loli.
Training advice : Normal use of this product shall imply use in accordance with the instructions on the

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Other information packaging.
: No information available.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.