

Safety data sheet

FUTERRO POLYLACTIC ACID OLIGOMERS

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Product :
PRUB-PLA03

Version (en) nr : 1.1

Revised : 30/07/2010
Supersedes : 15/10/2009

WARNING :
FOR STACKING
PALLETS, SEE
SECTION 7



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

Trade name	FUTERRO POLYLACTIC ACID OLIGOMERS
SDS number	PRUB-PLA03
Chemical name	Polylactique acide
CAS number	9051-89-2
MATERIAL USE	raw material (Pre-polymers)
Recommended uses and restrictions	Restricted to professional users
RESPONSIBLE FOR PLACING ON THE MARKET	
Trade name of the firm	see below this page.
EMERGENCY NUMBER	FUTERRO : + 32 (0)69 45 22 76 info@futerro.com
Official advisory body	The UK National Poisons Emergency number is 0870 600 6266 (Outside the UK: +44 870 600 6266) NB: these services are only available to health professionals IRL: The National Poisons Information Centre PO Box 1297, Beaumont Hospital, Beaumont Road Dublin 9. Telephone: +353 (01) 837 9966 / +353 (01) 809 2568

2. Hazards identification

Classification & Labelling

EC-GHS Not classified according to the regulation EC 1272/2008 (EC-GHS) and ATP

67/548/EEC & 1999/45/EC Not classified according to EEC directives 67/548/EEC (dangerous substances) and 1999/45/EC (dangerous preparations).

Main hazards

none to our knowledge
low risk for temperatures below 150 °C

Adverse human health effects

Inhalation fine dust may cause irritation of respiratory system and mucous.
if heated to more than 150°C, the product may form vapours or fumes which may cause irritation of respiratory tract and cause coughing and

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Skin contact	sensation of shortness of breath. may be irritating in contact with hot material, may cause severe thermal burns
Eye contact	fine dust may cause irritation to ocular mucous.
Ingestion	in case of ingestion of small quantities, no important effect observed. in case of ingestion of larger amounts: abdominal pain, diarrhoea, ...
Adverse environmental effects	the product is inherently biodegradable
Adverse physicochemical effects	combustible if exposed to flames. flowing product can create electrical charge, resulting sparks may ignite dust or cause an explosion in some concentration ranges.
<u>Label elements</u>	
EC-GHS	Not classified according to the regulation EC 1272/2008 (EC-GHS) and ATP
Pictogram(s)	-
<p>WARNING : FOR STACKING PALLET, SEE SECTION 7</p> 	
<u>Other hazards</u>	no information available

3. Composition / information on ingredients

<u>chemical name</u>	Polylactique acide
Concentration (%)	> 98 %
CAS number	9051-89-2
EINECS or ELINCS number	the product is a polymer, following the European regulation, registration on the EINECS (European Inventory of Existing Commercial Chemical Substances) inventory is not required.
EC-GHS	non required
67/548/EEC & 1999/45/EC	non required
<u>Substances presenting a health hazard</u>	none to our knowledge

4. First-aid measures

Description of first aid measures

IN CASE OF HEAVY OR PERSISTENT DISTURBANCES, CALL A DOCTOR OR SEEK MEDICAL ADVICE URGENTLY

Route of exposure

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Inhalation	exposure to spray, fumes and vapours produced by heated or burned product: bring patient into fresh air seek medical advice.
Skin contact	in case of irritation caused by fine dust: wash with copious volumes of water, until the irritation disappears. exposure to splashing of hot product: treat the affected part with cold water (by spraying or immersion). no attempt should be made to detach molten product adhering to the skin or to remove clothing attached with molten material, the injured body part would risk being pulled out; usually the layer detaches itself after a few days. in case of severe burns, seek hospital treatment
Eye contact	in case of irritation caused by fine dust: wash with copious volumes of water, until the irritation disappears. Get medical advice (ophthalmologist) exposure to splashing of hot product: treat the eyes with cold water. in case of severe burns, seek hospital treatment
Ingestion	do not induce vomiting. seek medical advice immediately.
Most important symptoms and effects	refer to § 11 for more details on effects.
Indication of any medical attention	no information available

5. Fire - fighting measures

Technical measures	stop the fire spreading. call the fire brigade immediately. evacuate non-essential personnel protective clothing, goggles and self-contained breathing equipment should be made available for firemen.
Extinguishing media	
Suitable	for minor fires : carbon dioxide (CO ₂) or powder, water for more extensive fires : foam. water spray (mist) to cool the surfaces exposed to the fire.
Not to be used	do not use water jets (stick jets) for extinguishing fire since they could help to spread the flames
Special peril	complete combustion, with an excess of oxygen forms: carbon dioxide (CO ₂) and water vapour. partial combustion, forms also: carbon monoxide (CO), soot and cracked products: aldehydes, ketones
Special exposure hazards	dust may form an explosive mixture with air, ignited by sparks or sources of ignition.

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Protective equipment for firefighters

wear suitable breathing equipment, in case of risk of exposure to vapour or fumes.

6. Accidental release measures

Personal precautions

For non-emergency personnel

wear a suitable anti-dust respirator
where exposure is likely, protective clothing must be worn including gloves
goggles/spectacles

For emergency responders

wear suitable breathing equipment, in case of risk of exposure to vapour or fumes.

After spillage / leakage

on soil

granules spilled on the floor can cause a risk of slipping on smooth surfaces.
recover the spilled product by sweeping or suction; put it in containers to facilitate its disposal.
dispose safely in accordance with local or national regulations.

on water

prevent the spilled material from spreading.
the product has a density > 1000 kg/m³, it sinks in water.
refer to a specialist for waste disposal in a safe manner in accordance with local or national regulations.

refer to points 8 and 13

7. Handling and storage

Important

refer to any national measures that may be relevant.

HANDLING

Technical measures

all pneumatic transport equipment must be electrically earthed.
avoid dust accumulation by use of filters in the pneumatic transport equipment.

STOCKAGE

Storage conditions

store at ambient temperature and at atmospheric pressure in original packaging (plastic or cardboard boxes) or in silo made of appropriate material (aluminium, stainless steel, ...).
do not store near highly flammable materials.
store away from heating source. avoid static electricity build up with connection to earth.
store in dry, well-ventilated area.
prolonged storage preferably out of the sun or other sources of radiation

Storage of pallets

two pallets may be stacked on flooring in sound condition.

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<p>Incompatible materials container</p> <p>Suitable VbF-Klasse (Germany)</p> <p>SPECIFIC USE(S) refer to point 8</p>	<p>however, when the pictorial warning as shown on the top of the safety data sheet is affixed to the pallet, the pallet must never be placed either on top of or below another pallet. N.B. :here the term pallet includes both the pallet and its load. when pallets are stored in racks, it should be checked whether the pallet is fit for stacking in the concerned racks</p> <p>avoid contact with strong oxidizing materials , water</p> <p>Polyethylene, stainless steel</p> <p>no information available</p>
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8. Exposure controls / personal protection

Exposure controls

refer to any national measures that may be relevant.

OCCUPATIONAL EXPOSURE LIMIT

inhalable dust particles:
 US (ACGIH-2009): TLV-8h TWA: 10 mg/m³
 UK: HSE EH40/2005:
 Long-term exposure limit (8-hour TWA reference period) : 10 mg/m³
 (Total Inhalable Dust)
 IRL(2002): OEL (8h): 10 mg/m³ (total inhalable)
 ZA (2006): OEL (8h): 10 mg/m³ (inhalable particulate: PNOC)
 respirable dust particles:
 US (ACGIH-2009): TLV- 8h TWA: 3 mg/m³
 UK: HSE EH40/2005:
 Long-term exposure limit (8-hour TWA reference period) : 4 mg/m³
 (Respirable Dust)
 IRL(2002): OEL (8h): 4 mg/m³ (respirable)
 ZA (2006): OEL (8h): 5 mg/m³ (respirable particulate: PNOC)

EXPOSURE CONTROLS

Occupational exposure controls

Personal protection



Respiratory protection

in case of risk of overexposure to dust, vapour or fumes (during product processing), it is recommended that a local exhaust system is placed above the conversion equipment (a fume hood) and the working area must be properly ventilated.
wear a suitable anti-dust respirator



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Skin and body protection	recommended filter type : P1 where exposure is likely, protective clothing must be worn including gloves
Eye protection	goggles/spectacles
Other personal protection	safety non-slip shoes in areas where spills or leaks can occur. shower and eye fountain available.
<u>Industrial health measures</u>	
General use	avoid contact with skin and eyes. do not store near food products. remove all contaminated clothing and remove protective clothing when the work is completed.
Environmental exposure controls	no information available

9. Physical and chemical properties

GENERAL INFORMATION

Appearance	pellets from a diameter of 2 to 5 mm
Physical state at 20°C	solid
Colour	transparent , translucent , white opaque
Odour	odourless

IMPORTANT HEALTH, SAFETY AND ENVIRONMENTAL INFORMATION

Change in physical state at 1013 hPa

Melting range (°C)	20 - 180
Softening point (°C)	55 - 65
Flash point (ASTM D 1929)(°C)	> 250
Decomposition point (°C)	> 220
Auto-ignition temperature (°C)	> 250
Explosion limits (kg/m ³)	:
Lower	0,015 (for polymer dust < 63 µm)
Vapour pressure at 20°C (hPa)	none
Density, mass at 20°C (kg/m ³)	1200 to 1300
Solubility in water at 20°C (mg/l)	insoluble
pH value (concentrated product)	not applicable
Viscosity (mm ² /s)	not applicable

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OTHER INFORMATION

no information available

10. Stability and reactivity

REACTIVITY

Stability

stable under normal operating conditions of storage, handling and use

Hazardous reactions

dust may form an explosive mixture with air, ignited by sparks or sources of ignition.

CONDITIONS TO AVOID

avoid contact with strong oxidizing materials
water
avoid proximity or contact with flames or sparks
it is recommended not to heat at a temperature higher than 230 °C

HAZARDOUS DECOMPOSITION PRODUCTS

complete combustion, with an excess of oxygen forms: carbon dioxide (CO₂) and water vapour.
partial combustion, forms also: carbon monoxide (CO), soot and cracked products: aldehydes, ketones

Advice to prevent explosion

avoid dust accumulation by use of filters in the pneumatic transport equipment.
thoroughly ventilate the working place.
all conductive materials must be electrically earthed.

11. Toxicological information

ACUTE TOXICITY

Ingestion

in case of ingestion of small quantities, no important effect observed. in case of ingestion of larger amounts: abdominal pain, diarrhoea, ...

LOCAL EFFECT

Inhalation

dust may cause irritation of respiratory system.
if heated to more than 150°C, the product may form vapours or fumes which may cause irritation of respiratory tract and cause coughing and sensation of shortness of breath.

Skin contact

may be irritating
in contact with hot material, may cause severe thermal burns
thermal decomposition products are produced at elevated temperatures and these may be irritating

Eye contact

fine dust may cause irritation to ocular mucous.
splashing of molten droplets causes ocular tissue burns.
thermal decomposition products are produced at elevated temperatures and these may be irritating

SENSITIZATION

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Skin contact following the available information, not regarded as a sensitiser
SPECIFIC EFFECTS no particular preoccupation for man
(According to available experimental data)

12. Ecological information

Information on ecological effects avoid losses to the environment whenever possible.
ECOTOXICITY because of its structure, the product should not be dangerous for aquatic life
72 hours-IC50-Algae (mg/l) > 1100 mg/l
PERSISTENCE AND DEGRADABILITY
Biodegradation the product is inherently biodegradable
BIOACCUMULATIVE POTENTIAL potential bioaccumulation of the product in environment is very low
MOBILITY
water / air there is a slow loss by evaporation
soil and sediments because of its physico-chemical properties, the product has a low soil mobility
Results of PBT and vPvB assessment non required

13. Disposal considerations

Waste disposal dispose in a safe manner in accordance with local/national regulations. authorized disposal do not dispose off by means of sinks, drains or into the immediate environment
Disposal of contaminated packaging dispose in a safe manner in accordance with local/national regulations.

14. Transport information

Road (ADR) / Rail (RID) Not restricted for transport.
UN Number not applicable
Marine (IMO) Not restricted for transport.
Air transport (ICAO / IATA) Not restricted for transport.



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15. Regulatory information

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

Germany

Wassergefährdungsklasse

NWG: non-hazardous to waters

Registration

the product is a polymer, following the European regulation, registration on the EINECS (European Inventory of Existing Commercial Chemical Substances) inventory is not required.

listed on the United States TSCA (Toxic Substances Control Act) inventory

listed on the Canadian DSL (Domestic Substances List) inventory.

listed on the Japanese ENCS (Existing & New Chemical Substances) inventory.

listed on the Korean ECL (Existing Chemical List) inventory.

listed on the People's Republic of China register: CRC-SEPA (Chemical Registration Center for Chinese State Environmental Protection Administration)

Other

refer to any national measures that may be relevant.

16. Other information

Training advice

The use of this product requires specific training.
The user must receive all product information in order to handle the product safely
(personal protection equipment and best practice standards)

Further information

no information available

Safety data sheet conforms to the Regulation (EU) N° 1907/2006

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This information applies to the PRODUCT AS SUCH and conforming to specifications of FUTERRO. In case of formulations or mixtures, it is necessary to ascertain that a new danger will not appear. The information contained is based on our knowledge of the product, at the date of publishing and it is given quite sincerely. However the revision of some data is in progress. Users are advised of possible additional hazards when the product is used in applications for which it was not intended. This sheet shall only be used and reproduced for prevention and security purposes. The references to legislative, regulatory and codes of practice documents cannot be considered as exhaustive. It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the product to pass on to any subsequent persons who will come into contact with the product. (usage, storage, cleaning of containers, other processes) the totality of the information contained within this safety data sheet and necessary for safety at work, the protection of health and the protection of environment.

The (*) indicate the changes made with respect to the previous version.