

Almablend®

Bioplastic from renewable, biodegradable and compostable raw materials. Suitable for injection molding, thermoforming and blown film extrusion processes.

1. Identification of the substance and of the supplier

1.1 Product identifiers

Product Name

Almablend® 300

Almablend® 400

Almablend® 600

Substance or mixture

Mixture

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

Recommended use

Plastic industry

Uses advised against

All those not listed

1.3 Details of the supplier of the safety data sheet

Company

Bioware Srl, Via di Vannina 88, 00156
Roma

1.4 Emergency telephone number

Mob. +39 3289816259 (only office hours
available: 8.30-12.30 e 13.30-17.30)

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification of the mixture

The product is a mixture under Reg. CE
n. 1272/2008. The procedure used to
derive the hazard classification under



Reg. CE n. 1272/2008 is the calculation of additivity method.

2.2 Label elements

Label elements

None

2.3 Other hazards

Other hazards

The mixture consists of an inert polymer containing specific components, all the other contamination risks associated with them are minimized, as said components are completely incorporated in the base polymer. Handling the product can generate small dust particles in the air with the danger of explosion. See sections 7 and 8 for more information

3. COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Substance

Substance

Not applicable

3.2 Mixture

Classification of the mixture

The product is a mixture formed of an inert thermoplastic polymer containing organic fillers and / or additive (s)

Base Polymer

Polylactic acid

Complementary substance

Inorganic fillers and additives

4. FIRST AID MEASURES



4.1 Description of first aid measures

Eye contact

Rinse the eyes with plenty of clean water for at least 15 minutes. While rinsing the eyes, open the eyelids wide with fingers to let the water reach all the portions of the eyes. Do not rub the eyes. Remove any Contact lenses if easy to do. Then, consult an ophthalmologist.

Skin contact

Rinse the exposed area with plenty of clean water. In the event of complications consult your doctor.

Ingestion

Wash the mouth thoroughly with water. Consult a specialist immediately.

Inhalation

Move person to fresh air. If patient is not breathing or breath irregular, provide artificial respiration. Obtain medical attention by physician if symptoms persist.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

None

4.3 Indication of any immediate medical attention and special treatment needed

See section 4.1

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray; Carbon dioxide; foam; dry chemical powder

Unsuitable extinguishing media

Not known

5.2 Special hazards arising from the substance or the mixture

Dangerous combustion products

Carbon oxides, acetaldehyde

5.3 Special protective equipment and precautions for fire-fighters

Recommendations

Wear self-contained breathing apparatus for fire fighters if necessary.



pay attention to the fumes deriving from the decomposition of the mixture

Fire fighting measures

Evacuate personnel not assigned to extinction.

6. ACCIDENTAL RELEASE MEASURE

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Evacuate personnel in a safe area, use appropriate protective equipment, avoid contact with skin and the skin. Eliminate all sources of combustion, ensure adequate ventilation of the environment

6.2 Environmental precautions

Environmental precautions

Do not release into the environment

6.3 Methods and materials for containment and cleaning up

Methods and materials for containment and cleaning up

Prevent product leaks and leaks. Remove the product using a suction means

6.4 References to other sections

References to other sections

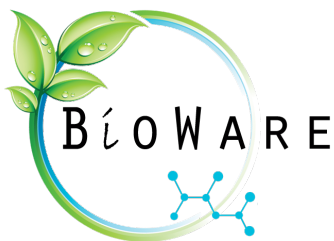
See section 8 and 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Precautions for safe handling

Do not eat, drink or smoke during use. Use in environments with adequate ventilation. Avoid contact with skin



eyes. Consult section 8 for appropriate protection and prevention devices.

7.2 Conditions for safe storage, including any incompatibilities

Conditions for safe storage, including any incompatibilities

Store at temperatures not exceeding 50°C. Store in accordance with local regulations.

7.3 Special end uses

Special uses

Consult the technical instructions for the use of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Exposure limits

No exposure limit known. Store according to local regulations.

8.2 Exposure control

Suitable technical checks

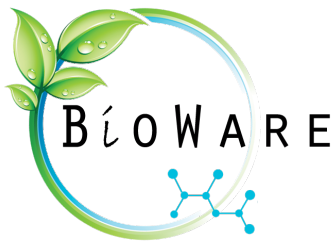
Use in environments with adequate ventilation.

Personal protective equipment

Eye protection: safety glasses (EN 166).
Skin and body protection: Safety clothes (with long sleeves), safety shoes.
Hand protection: Gloves in butyl rubber (EN 347).
Respiratory protection: Use respiratory protection devices with the exception that adequate ventilation of the working environment is provided.
Recommended type of filter: P2.
Thermal hazards: Wear suitable personal protective equipment when handling the molten mixture.

Environmental exposure parameters

Do not divest of the product in the environment, avoid contamination of drains and drains



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid
Appearance	Granule
Colour	Opaque white
Odour	Odorless
Odour threshold	Not applicable
PH	Not applicable
Melting point	170-200 °C
Initial boiling point and boiling range	Not applicable
Flammability (solid, gas)	Not applicable
Upper/lower flammability	Not applicable
Upper/lower explosive limits	Not applicable
Flash point	Not applicable
Evaporation rate	Not applicable
Auto ignition temperature	Not applicable
Decomposition temperature	≥240°C
Danger of explosion	Not explosive
Vapor pressure	Not applicable
Relative vapor density	Not applicable
Oxidizing properties	Not applicable
Partition coefficient: noctanol/water log Pow)	Not data available
Water solubility	Insoluble in water
Solubility in other solvents	Not determined
Dynamic viscosity	Not applicable



Kinematic viscosity	Not applicable
Density	1.68-1.72 g/cm ³
9.2 Other information	
Other information	Not data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity	No data available
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10.2 Chemical stability

Chemical stability	Stable under recommended conditions of use
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10.3 Possibility of hazardous reactions

Possibility of hazardous reactions	None
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10.4 Conditions to avoid

Conditions to avoid	Temperature above 240°C
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10.5 Incompatible materials

Incompatible materials	Water, Humidity
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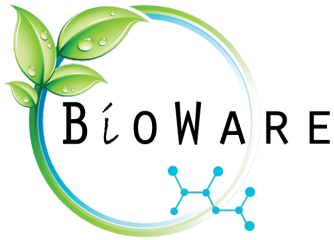
10.6 Hazardous decompositions products

Hazardous decompositions products	Carbon Oxides, acetaldehyde
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11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity (ingestion)	No known effect
Acute toxicity (skyn contact)	No known effect
Acuta toxicity (inhalation)	No known effect
Skin corrosion /Irritation	No known effect
Skin sensitisation	No known effect



Respiratory sensitisation	No known effect
Carcinogenic elements	It contains no carcinogenic ingredients
Reproductive toxicity	No known effect
Repeated dose toxicity	No known effect
Germ cell mutagenicity	No known genotoxic effect

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity	It does not contain substances that are dangerous for the environment
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12.2 Persistence and biodegradability

Persistence and biodegradability	Biodegradable in industrial composting conditions
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12.3 Bioaccumulative potential

Bioaccumulative potential	No data available
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12.4 Mobility in soil

Mobility in soil	No data available
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12.5 Results of the PBT and vPvB assessment

Results of the PBT and vPvB assessment	No data available
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12.6 Other adverse effects

Other adverse effects	No data available
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13. DISPOSAL CONSIDERATION

13.1 Waste treatment methods and treatment of contaminated packaging

Waste treatment methods	Disposal according to applicable State and Local regulations
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Contaminated packaging

Disposal according to applicable State and Local regulations

14. TRANSPORT INFORMATION

14.1 UN number

UN number

Not applicable

14.2 UN proper shipping name

UN proper shipping name

Not applicable

14.3 Transport hazard classes

ADR/RID/ADN

Not applicable

ICAO/IATA

Not applicable

IMDG

Not applicable

14.4 Packaging group

ADR/RID/ADN

Not applicable

ICAO/IATA: NA

Not applicable

IMDG

Not applicable

14.5 Environmental hazards

Environmental hazards

Not applicable

14.6 Special precautions for user

Special precautions for users

No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code

Not applicable

15. REGULATORY INFORMATION

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



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

Legal References Regulation UE (CE) n. 1907/2006 (REACH); Regulation CLP 1272/2008

15.2 Evaluation of chemical safety

Chemical safety

No data available

6. OTHER INFORMATION

Product code

300

400

600

Abbreviations and acronyms

PBT (Persistent Bioaccumulative Toxic), EC (European Commission), vPvB (Very persistent and Very Bioaccumulative)

More information

The information contained in this Safety Data Sheet is shown on the basis of the current knowledge of the product at the time of publication. The contents of this SDS are provided solely as a guide for the handling, use, consumption, processing, storage, transportation, disposal and release of the material. This information should not be considered a guarantee or a specification of the quality of the product. Such information may not be applicable if the material is combined with any material or process other than what is expressly stated in this document. The user is required to verify the accuracy, completeness and applicability of such information.

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