Safety Data Sheet

Revision date: 17/01/2021

Version: 1.0



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

1.1. Product identifier

Product name : BIONEX TX-300 Bio-compostable compound

Product code : TX-300

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: Manufacture of plastics products, including compounding and conversion.

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

Unique Polymer Co., Ltd

282 Moo 2 Pharaek Sa Mai, Mueang Samut Prakan, Samut Prakan 10280

Tel.(+66)02-116-3138

Website: Unique-polymer.com

1.4. Emergency telephone number

Not applicable

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

No hazardous effects known.

2.2. Label elements

there is no labelling obligation.

2.3. Other hazards

No additional information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

PBAT, PLA, tapioca starch, glycerol and additives.

3.2. Mixtures

Not applicable.

Safety Data Sheet

Revision date: 17/01/2021

Version: 1.0



SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after inhalation : Not expected to present a significant inhalation hazard under normal use. Remove victim

to fresh air and keep warm and at rest. Obtain medical attention if breathing difficulty

persists

First-aid measures after skin contact : Following contact with the melted product, quickly cool affected skin area with water.

First-aid measures after eye contact : Not expected to cause irritation under normal use. If eye irritation persists, consult a

specialist.

First-aid measures after ingestion : Avoid ingestion of product. Suggest to induce vomiting and no special attention needed.

4.2. 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 extinguishing powder. Foam. Carbon dioxide (CO2).

5.2. Special hazards arising from the substance or mixture

Fire hazard : Thermal decomposition can lead to the escape of irritating gases and vapors. Carbon dioxide

(CO2). Carbon monoxide. Gas/ vapors, toxic.

5.3. Advice for firefighters

Use full protective clothing for chemicals and self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Evacuate all unnecessary personnel to a safe and ventilated location.

6.1.2. For emergency responders

Avoid ignition sources. Avoid contact with skin, eyes and clothing by working with hot material.

6.2. Environmental precautions

Do not allow uncontrolled leakage of product into the environment.

6.3. Methods and material for containment and cleaning up

Remove mechanically, placing in appropriate containers for disposal. Handle contaminated packaging in the same way as the product itself.

6.4. Reference to other sections

No additional information available.

Safety Data Sheet

Revision date: 17/01/2021

Version: 1.0



SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Avoid generation of dust. Provide adequate ventilation. Remove all sources of ignition. Take

precautionary measures against static discharges. When using do not eat, drink or smoke. Wash

hands before breaks and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

Storage area : Keep container tightly closed and dry.

Special rules on packaging : Keep/Store only in original container.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Not applicable.

8.2. Exposure controls

Appropriate engineering controls : If suction of the immediate vicinity is impossible or insufficient, the entire working place

must be sufficiently ventilated using appropriate machines.

Hand protection: Wear suitable gloves.

Eye protection: Wear eye/face protection.

Skin and body protection: Only wear fitting, comfortable and clean protective clothing.

Respiratory protection: In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Granules

Colour : Yellowish brown

Odour : Slightly sweet starch smell

Odour threshold : Not applicable

pH : Not applicable

Relative evaporation rate (butyl acetate=1) : Not applicable

Melting point : No data available

Freezing point : No data available

Safety Data Sheet

Revision date: 17/01/2021

Version: 1.0



Boiling point : Decomposes before boiling

Flash point : No data available

Self ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : Not applicable

Relative vapour density at 20 °C : Not applicable

Relative density : No data available

Relative gas density : not applicable

Solubility : Water: partially soluble

Log Pow : Not applicable

Viscosity, kinematic : Not applicable

Viscosity, dynamic : Not applicable

Explosive properties : Not applicable.

Oxidizing properties : Not applicable.

Explosive limits : No data available

9.2. Other information

Minimum ignition energy : Not applicable

SADT : Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

10.5. Incompatible materials

None known.

Safety Data Sheet

Revision date: 17/01/2021

Version: 1.0



10.6. Hazardous decomposition products

In case of fire: Carbon monoxide. Carbon dioxide. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Skin corrosion/irritation : Not classified

pH: not applicable

Serious eye damage/irritation : Not classified

pH: not applicable

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Disposal considerations

12.1. Waste treatment methods

Regional legislation (waste) : Comply with local regulations for disposal.

Waste disposal recommendations : Do not empty into drains; dispose of this material and its container in a safe way. Handle

contaminated packaging in the same way as the product itself.

Safety Data Sheet

Revision date: 17/01/2021

Version: 1.0



SECTION 13: Transport information

In accordance with ADR / RID / IMDG / IATA

13.1. UN number

UN-No. : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

UN-No. (ADN) : Not applicable

UN-No. (RID) : Not applicable

13.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : Not applicable

13.3. Transport hazard class(es)

Not applicable.

13.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

13.5. Environmental hazards

Not applicable.

13.6. Special precautions for user

- Overland transport

No data available.

- Transport by sea

No data available.

- Air transport

No data available.

Safety Data Sheet

Revision date: 17/01/2021

Version: 1.0



- Inland waterway transport

No data available

- Rail transport

No data available.

13.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

SECTION 14: Regulatory information

14.1. Chemical safety assessment

No additional information available.

SECTION 15: Other information

Abbreviations and acronyms:

REACH	Dogiotrotion Evaluation	Authorization and Doctriction of	f Chamicala Bagulation	(EC) No 1007/2006
KEACH	Redistration, Evaluation, i	Authorization and Restriction of	i Chemicais Reduiation	(EC) NO 1907/2000

SVHC Substance of very high concern

CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008

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

IMDG International Maritime Dangerous Goods

IATA International Air Transport Association

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland

Waterways

RID Regulations concerning the International Carriage of Dangerous Goods by Rail

MARPOL 73/78 International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol

of 1978. ("MARPOL" is short for marine pollution and 73/78 short for the years 1973 and 1978.)

IBC The International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals

in Bulk

OSHA Occupational Safety & Health Administration

TWA Time Weighted Average

STEL Occupational Exposure Limits - Short Term Exposure Limits (STELs)

ACGIH American Conference of Government Industrial Hygienists

TLV Threshold Limit Value

IARC International Agency for Research on Cancer

Safety Data Sheet

Revision date: 17/01/2021

Version: 1.0



Full text of H- and EUH-statements:

Aquatic Acute 1 Hazardous to the aquatic environment — Acute Hazard, Category 1

Aquatic Chronic 1 Hazardous to the aquatic environment — Chronic Hazard, Category 1

To the best of our knowledge, the information contained in this statement is accurate and reliable as of the date of publication. The information relates only to the product specifically identified in this document when not used in combination with any other products or materials. Unique Polymer makes no warranties, express or implied, and assumes no liability in connection with any use of this information.

Upon sale of Unique Polymer products, Unique Polymer warrants that the products conform to the applicable written specifications at the time the products are shipped from Unique Polymer facility. All other express or implied warranties, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose, are disclaimed.

Purchaser acknowledges that it has sole control and responsibility to ensure, on a continuing basis, that the products and any method of use or application of the products are suitable for its purposes. Any assistance provided by Unique Polymer to purchaser relative to the product, including without limitation, formulation, manufacturing and testing for the use or application of the products for purchaser's purposes, is made without any express or implied warranties, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose.

Unique Polymer will not be liable for consequential or indirect damages and purchaser's exclusive remedy for claims (including claims for breach of warranty, negligence and strict liability) is limited to the replacement of the non-conforming products or the refund of the purchase price of the non-conforming products or, with regard to services, to re-process purchaser's materials.