

Trade name: ArmaPET Shape

Current version : 2.0.0, issued: 10.11.2020

Replaced version: 1.0.0, issued: 13.12.2018

Region: GB

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

1.1 Product identifier

Trade name

ArmaPET Shape

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

Relevant identified uses of the substance or mixture

Used primarily for manufacturing 3-dimensional molded parts, e.g. for automotive, railway or aviation.

Finished goods production is based on a variety of steam molding, or electromagnetic waves fusion processes.

Expandable PET beads could be also used as a filler (e.g. in polymeric concrete or geopolymers).

Uses advised against

Uses which are not mentioned in the relevant identified uses.

Not suitable for food contact, or medical applications.

1.3 Details of the supplier of the safety data sheet

Address

Armacell Benelux S.C.S.

Z.I. Les Plenesses

Rue des Trois Entités 9

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Information provided by / telephone

Dr. Justyna Dolega, Tel.: +32 (0) 496 - 565 - 076

Advice on Safety Data Sheet

justyna.dolega@armacell.com

1.4 Emergency telephone number

For medical advice (in German and English):

+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification information

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

This product does not meet the classification criteria given in the Regulation (EC) No 1272/2008 (CLP).

2.2 Label elements

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

Hazard pictograms

-

Signal word

-

Hazard statement(s)

-

Hazard statements (EU)

EUH018

In use may form flammable/explosive vapour-air mixture.

Trade name: ArmaPET Shape

Current version : 2.0.0, issued: 10.11.2020

Replaced version: 1.0.0, issued: 13.12.2018

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EUH210 Safety data sheet available on request.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P243 Take action to prevent static discharges.

P403+P235 Store in a well-ventilated place. Keep cool.

Labelling information

The labelling (EU hazard statements) meets the criteria of annex II of Directive (EC) Nr. 1272/2008 (CLP).

2.3 Other hazards

Product releases cyclopentane, a flammable hydrocarbon.

May cause irritation to skin and eyes.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	cyclopentane			
	287-92-3 206-016-6 601-030-00-2 -	Aquatic Chronic 3; H412 Flam. Liq. 2; H225	< 7.00	wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes and launder thoroughly before reusing.

After inhalation

Ensure supply of fresh air. Remove affected person from the immediate area.

After skin contact

When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). In case of irritation consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Foam; Water spray jet; Extinguishing powder; Carbon dioxide

Unsuitable extinguishing media

Trade name: ArmaPET Shape

Current version : 2.0.0, issued: 10.11.2020

Replaced version: 1.0.0, issued: 13.12.2018

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High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Keep away from ignition sources. Avoid dust formation. Do not inhale dust. Ensure adequate ventilation. High risk of slipping due to leakage/spillage of product.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically. Avoid raising dust. When collected, handle material as described under the section heading "Disposal considerations".

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Provide good room ventilation even at ground level (vapours are heavier than air).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Remove soiled or soaked clothing immediately. Do not inhale dust. Avoid contact with eyes.

Advice on protection against fire and explosion

Keep away from sources of ignition - refrain from smoking. Take precautionary measures against electrostatic loading (earthing necessary during loading operations). Use explosion-proof equipment/fittings and non-sparking tools. Ignitable mixtures can form in the empty container. Vapours can form an explosive mixture with air.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

Requirements for storage rooms and vessels

Keep in original packaging, tightly closed.

Incompatible products

Do not store together with: oxidizing agents

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No parameters available for monitoring.

8.2 Exposure controls

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to

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Current version : 2.0.0, issued: 10.11.2020

Replaced version: 1.0.0, issued: 13.12.2018

Region: GB

conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified.

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

In case of intensive contact, wear protective gloves (EN 374). Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves. anti-static gloves

Appropriate Material Leather

Other

Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre. Antistatic shoes

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form/Colour	
solid; beads	
various; white; green; blue	
Odour	
perceptible	
Odour threshold	
No data available	
pH value	
No data available	
Boiling point / boiling range	
No data available	
Melting point / melting range	
Value	250 °C
Decomposition point / decomposition range	
Value	350 °C
Flash point	
No data available	
Auto-ignition temperature	
No data available	
Oxidising properties	
No data available	
Explosive properties	
No data available	
Flammability (solid, gas)	
No data available	

Trade name: ArmaPET Shape

Current version : 2.0.0, issued: 10.11.2020

Replaced version: 1.0.0, issued: 13.12.2018

Region: GB

Lower flammability or explosive limits			
Value	1.5	% vol	
Reference substance	CAS 287-92-3		
Upper flammability or explosive limits			
Value	9.4	% vol	
Reference substance	CAS 287-92-3		
Vapour pressure			
No data available			
Vapour density			
No data available			
Evaporation rate			
No data available			
Relative density			
No data available			
Density			
Value	50	- 400	kg/m ³
Solubility in water			
Reference temperature	20	°C	
Comments	insoluble		
Solubility(ies)			
No data available			
Partition coefficient: n-octanol/water			
No data available			
Viscosity			
No data available			

9.2 Other information

Other information
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Risk of formation of explosive gas mixtures in air.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources. Static discharges.

10.5 Incompatible materials

strong oxidizing agents

10.6 Hazardous decomposition products

Carbon monoxide and carbon dioxide; acetaldehyde; Formaldehyde; acidic gases/vapours

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Trade name: ArmaPET Shape

Current version : 2.0.0, issued: 10.11.2020

Replaced version: 1.0.0, issued: 13.12.2018

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No data available
Acute dermal toxicity
No data available
Acute inhalational toxicity
No data available
Skin corrosion/irritation
No data available
Serious eye damage/irritation
No data available
Respiratory or skin sensitisation
No data available
Germ cell mutagenicity
No data available
Reproduction toxicity
No data available
Carcinogenicity
No data available
STOT - single exposure
No data available
STOT - repeated exposure
No data available
Aspiration hazard
No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)
No data available
Toxicity to fish (chronic)
No data available
Toxicity to Daphnia (acute)
No data available
Toxicity to Daphnia (chronic)
No data available
Toxicity to algae (acute)
No data available
Toxicity to algae (chronic)
No data available
Bacteria toxicity
No data available

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

Trade name: ArmaPET Shape

Current version : 2.0.0, issued: 10.11.2020

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12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	9
Classification code	M3
Packing group	III
Hazard identification no.	90
UN number	UN2211
Proper shipping name	POLYMERIC BEADS, EXPANDABLE
Tunnel restriction code	D/E

14.2 Transport IMDG

Class	9
Packing group	III
UN number	UN2211
Proper shipping name	POLYMERIC BEADS, EXPANDABLE
EmS	F-A, S-I
Label	9

14.3 Transport ICAO-TI / IATA

Class	9
Packing group	III
UN number	UN2211
Proper shipping name	Polymeric beads, expandable
Label	9

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

Can release flammable vapors. No smoking. Ventilate freight container with open door before unloading.

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

Not relevant

SECTION 15: Regulatory information

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

Trade name: ArmaPET Shape

Current version : 2.0.0, issued: 10.11.2020

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EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances subject to restriction as listed in Annex XVII of the REACH regulation (EC) 1907/2006.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is not subject to Part 1 or 2 of Annex I.

Other regulations

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H225 Highly flammable liquid and vapour.

H412 Harmful to aquatic life with long lasting effects.

Creation of the safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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