

Safety data sheet

According to regulation (EC) No. 1907/2006 (REACH)

Date created: 02.10.2024
Date revised: 02.10.2024



Badaflex TPU 85A 8101 FR HF EX

1. Identification of the substance/mixture and of the company

1.1. Product identifier

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

Relevant identified uses: Polymer

Recommended use: Polymer, for industrial processing only

1.3. Details of the supplier of the safety data sheet

Bada AG
E-Mail: info@bada.de
Untere Strut 1
D-77815 Bühl/Baden

Fon: +49 (0) 72 23-940 77-0 (Mo.–Fr. 08:30–16:30 Uhr)

Fax: +49 (0) 72 23-940 77-77

Web: www.bada.de

1.4. Emergency telephone number

Giftinformationszentrum-Nord – Tel.: +49 (0) 551-19240

2. Hazards Identification

2.1. Classification of the substance or mixture

No need for classification according to GHS criteria for this product.

2.2. Label elements

The product does not require a hazard warning label in accordance with GHS criteria.

Applicable for coloured mixtures (in particular for bright colours & white):

Labelling of mixtures (in accordance with GHS)

EUH210: Safety data sheet available on request. EUH212: Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. Titanium dioxide

Affected containers are labelled separately

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered.

Based on the available information, the product does not contain any PBT or vPvB substances in content percentages \geq than 0.1%.

The product does not contain any substance above the legal limits that has been included in the list of endocrine-disrupting properties established pursuant to Article 59(1) of Regulation (EC) No 1907/2006 or that has endocrine-disrupting or endocrine-disrupting properties in accordance with Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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3. Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

Preparation based on thermoplastic polyurethane (TPU), flame retardants, additives, optionally pigments.

Hazardous ingredients:

Reaction mass of 3-methylphenyl diphenyl phosphate, 4-methylphenyl diphenyl phosphate, bis(3-methylphenyl) phenyl phosphate, 3-methylphenyl 4-methylphenyl phenyl phosphate and triphenyl phosphate

Content (W/W) $\geq 25\%$ - $< 30\%$ Aquat. Acute Cat. 1, H400

CAS-No: --- Aquat. Chron. Cat. 3, H412

EG-No: ---

REACH Reg. Number: 01-2119511174-52

Applicable for coloured mixtures (in particular for bright colours & white):

Titanium dioxide

Loading (W/W): $\geq 1\%$ - $\leq 10\%$

CAS-No: 13463-67-7

EG-No: 236-675-5

REACH Reg. Number: 01-2119489379-17

Affected containers are labelled separately.

4. First-Aid Measures

4.1. Description of first aid measures

Avoid contact with the skin, eyes and clothing.

If inhaled:

If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

On skin contact with polymer melt:

a) Cool with water

b) Do not use force or solvents to remove product incrustations from affected skin areas

c) Medical treatment necessary

On contact with eyes:

If irritation develops, seek medical attention. In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water.

On ingestion:

Rinse mouth and then drink plenty of water. If difficulties occur: Seek medical attention.

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

Symptoms: No significant reaction of the human body to the product known.

Hazards: No hazard is expected under intended use and appropriate handling

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

Treatment: Treat symptomatically

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5. Fire-Fighting Measures

5.1. Extinguishing media

Water spray, foam, dry powder, CO₂

5.2. Special hazards arising from the substance or mixture

Avoid thermal decomposition (decomposition temperature cf. section 9).

On thermal decomposition, caused by overheating during processing or in case of fire, hazardous gases and fumes may develop. Cf. "hazardous decomposition products".

Hazardous decomposition products:

Mainly carbon monoxide, carbon dioxide, nitrogen oxides and products derived from styrene.

Further hydrocarbons (aliphatic and aromatic), aldehydes, ketones, acids, acrolein, hydrogen cyanide.

Under special circumstances, traces of other toxic components cannot be excluded. Formation of other decomposition products depends on burning conditions.

5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus, as toxic gases and carbon monoxide may be formed.

Wear protective clothing and face protection.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Granules: Special danger of slipping by leaking/spilling product. Take up mechanically

Melt: Danger of exothermal decomposition. Cool down using water.

6.2. Environmental precautions

No special precautions necessary.

6.3. Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Pick up with suitable appliance and dispose of.

6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

7.1. Precautions for safe handling

Take precautionary measures against static discharges. Do not breathe dust.

When the product is chopped or ground, dust explosion regulations have to be considered. Use closed systems. Provide exhaust ventilation. Do not breathe fumes.

7.2. Conditions for safe storage, including any incompatibilities

Protect against moisture. Suitable materials for containers: Polyethylen.

7.3. Specific end use(s)

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For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits:

The limit values are expected not to be achieved if the product is processed proper and suitable ventilation is provided.

8.2. Exposure controls

Personal protective equipment:

Respiratory protection: Breathing protection if breathable aerosols/dust are formed. Wear respiratory protection (type P3) if ventilation is inadequate.

Hand protection: Use additional heat protection gloves when handling hot molten masses (EN 407), e.g. of textile or leather.

Eye protection: Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures: Do not eat, drink or smoke at work station. Wash hands and uncovered skin after work.

9. Physical and Chemical Properties

9.1. Basic information on physical and chemical properties

Form:	Granules
Color:	various, depending on the colourant
Odour:	odourless
Odour threshold:	not applicable
Melting temperature:	approx. 165 °C
Boiling range:	not applicable, product decomposes
Flash point:	not applicable
Evaporation rate:	not applicable
Flammability	not applicable
Lower explosion limit:	not applicable, product decomposes
Explosion risk:	no risk of explosion
Decomposition temperature:	> 300 °C
Ignition temperature :	> 400 °C
Self ignition temperature:	> 400 °C
Relative density:	no data available
Relative vapor density:	not applicable
Vapor pressure:	not applicable
Viscosity:	not applicable
Solubility in water:	insoluble
pH value:	not applicable
Partitioning coefficient n-octanol/H₂O	not applicable
Viscosity, kinematic:	not applicable, the product is a solid
Density:	1.0 – 1.3 g/cm ³

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Bulk density: approx. 700 kg/m³

9.2. Other information

Explosive substances/mixtures

Explosion risk: no risk of explosion

Oxidising properties

Oxidising properties: no oxidizing properties

Pyrophoric properties

Self ignition temperature: no self ignition
(test method: spontaneous self ignition at room temperature)

Self-heating properties

No self-heating mixture according to UN transport classification class 4.2
(VDI 2263, page 1, section 1.4.1)

Metal corrosion

Non-corrosive to metal.

10. Stability and Reactivity

10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions

No hazardous reactions known if stored and handled as prescribed/indicated.

10.4. Conditions to avoid

Avoid temperatures above decomposition temperature (cf. Section 9). Upon thermal decomposition, e.g. by overheating during processing, or in case of fire, hazardous gases and vapors may be formed. Cf. "hazardous decomposition products".

10.5. Incompatible materials

No substances known that should be avoided.

10.6. Hazardous decomposition products:

Mainly carbon monoxide, carbon dioxide, nitrogen oxides and products derived from styrene.
Further hydrocarbons (aliphatic and aromatic), aldehydes, ketones, acids, acrolein, hydrogen cyanide.

Under special circumstances, traces of other toxic components cannot be excluded. Formation of other decomposition products depends on burning conditions.

11. Toxicological Information

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

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Acute toxicity:

Contact with molten product may cause thermal burns.

Irritation:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Contact with eyes:

Eye contact with granules may cause eye irritation.

Respiratory/Skin sensitization:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Germ cell mutagenicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Carcinogenicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Reproductive toxicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Developmental toxicity:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Specific target organ toxicity (single exposure):

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Specific target organ toxicity (repeated exposure):

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Aspiration hazard:

No aspiration hazard expected.

Other relevant toxicity information:

None.

11.2. Information on other hazards

Endocrine-disrupting properties:

The product does not contain any substance that is considered to have endocrine disrupting properties in accordance with EU REACH Article 57(f)

Other Toxicity Notes:

Based on our experience and the information available, no adverse health effects are expected if

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handled as recommended with suitable precautions for designated uses

12. Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity: There is a high probability that the product is not acutely harmful to aquatic organisms, due to the chemical structure and insolubility in water.

12.2. Persistence and degradability

Experience shows this product to be inert in water and non-degradable. The product is virtually insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plants.

12.3. Bioaccumulative potential

The product will not be readily bioavailable due to its consistency and insolubility in water.

12.4. Mobility in soil

Study scientifically not justified due to product consistency and insolubility in water.

12.5. Results of PBT and vPvB assessment

The product is not persistent/bioaccumulative/toxic.

12.6. Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties according to REACH article 57(f)

12.7. Other adverse effects

The product does not contain substances that lead to a decrease of the ozone layer according to EG 1005/2009

13. Disposal Considerations

Check for possible recycling. The preparation can be molten and processed several times. Consider sorting accuracy and cleanliness of plastics.

Incinerate in suitable incineration plant, or landfill as consumer waste, observing local authority regulations.

Waste code according to European waste catalogue:
070213 Waste plastic

Contaminated packaging:
Packs must be completely emptied. Completely emptied packagings can be given for recycling.

14. Transport Information

Land transport

ADR / RID

Not classified as a dangerous good under transport regulations.

UN number:

Not applicable

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UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations.

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known
Transport in inland waterway vessel:	Not evaluated

Sea transport

IMDG

Not classified as a dangerous good under transport regulations.

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known
Transport in inland waterway vessel:	Not evaluated

Air transport

IATA / ICAO

Not classified as a dangerous good under transport regulations.

UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

15. Regulatory Information

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

Product is not classified as hazardous.

15.2. Chemical Safety Assessment

Chemical Safety Assessment not required.

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16. Other Information

The preparation must not be used to produce medical parts which are intended as a permanent implant in the human body.

The information in this material safety data sheet have been compiled carefully and represent the state of our knowledge at the issue date. They are intended to give advice for the save and proper handling, transport, storage and disposal of the product to the industrial or commercial user. The information is not transferable to other products. The information does not guarantee certain product properties. Recipients to our products must take responsibility for observing existing laws and regulations.