

Material Safety Data Sheet

TPU all types

SECTION 1: Hazards identification

1.1. Classification of the substance or mixture

In accordance with Regulation (EC) No 1272/2008 [CLP]

The product is not subject to classification according to GHS criteria

1.2. Labeling elements

Globally Harmonized System. EU (GHS)

The product does not have to be labeled according to GHS criteria.

1.3. Other dangers

In accordance with Regulation (EC) No 1272/2008 (CLP)

No special hazards known. If the instructions / instructions for storage and handling are observed.

SECTION 2: Composition / information on ingredients

2.1. Substances

Not applicable

2.2. Mixtures

Chemical characterization

Polymer based on:

Polyurethane. Stabilizers. Additives

Hazardous ingredients (GHS)

According to Regulation (EC) No 1272/2008

Contains no hazardous ingredients.

SECTION 3: First aid measures

3.1. Description of first aid measures

After skin contact:

Burns by molten material must be treated clinically.

3.2. Most important acute and delayed symptoms and effects

Symptoms: Special reactions of the human body to the product are to date not known.

Hazards:

No threats to be expected.

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

Treatment:

Symptomatic treatment (decontamination, vital functions), no specific antidote known.

SECTION 4: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray, foam, extinguishing powder, carbon dioxide

5.2. Special hazards arising from the substance or mixture

Carbon dioxide, carbon monoxide, hydrogen cyanide; Hydrogen cyanide, nitrogen oxides, isocyanate

The substances / groups of substances mentioned can be released in the event of a fire.

5.3. Instructions for fire fighting

Special protective equipment:

Wear self-contained breathing apparatus.

More information:

Dispose of fire residues and contaminated fire-fighting water according to official regulations.

SECTION 5: Accidental release measures

Special risk of slipping due to leakage / spillage.

6.1. Personal precautions, protective equipment and emergency procedures

No special actions required.

6.2. Environmental protection measures

No special actions required.

6.3. Methods and materials for retention and cleaning

For small quantities: Pick up mechanically.

For large quantities: Pick up mechanically.

6.4. Reference to other sections

Information on the exposure controls / personal protective equipment and on instructions for disposal can be found in sections 8 and 13.

SECTION 6: Handling and storage

7.1. Precautions for safe handling

Provide adequate suction during drying and in the area of the melt outlet of processing machines.

Fire and explosion protection:

No special actions required.

7.2. Conditions for safe storage, including any incompatibilities

Separation of food, pleasure, feed.

Suitable materials for containers: high density polyethylene (HDPE), low density polyethylene (LDPE), paper / cardboard

Further information on storage conditions: Keep container tightly closed. Keep away from moisture protect.

Storage class according to TRGS 510 (originally VCI, Germany): (11) Combustible solids

7.3. Specific end use (s)

For the relevant identified uses according to section 1, the instructions given in this section 7 are to be observed.

SECTION 7: Exposure controls/personal protection

8.1. Parameters to be monitored

Components with occupational exposure limits

The substances mentioned are only present in traces in the product.

101-68-8:

4,4'-methylenediphenyl diisocyanate diphenylmethane-4,4'-diisocyanate A

GW 0.05 mg / m³ (TRGS 900 (OE)),

Smoke and aerosol Peak limitation / Exceeding factor: = 2 =

Sum of steam and aerosols. The workplace limit value (AGW) generally applies only to the monomers.

For the evaluation of oligomers, see TRGS 430 „Isocyanates“.

Factor of short-time exposure: (TRGS 900 (DE)),

Smoke and aerosol Peak limitation / Exceeding factor: 1

Substance, listed with an override factor and category for short-term value.

Classification of short-term exposure: (TRGS 900 (EN)), smoke and aerosol Category 1: Substances for which the local effect is limiting value or respiratory sensitizing substances

Classification of short-term exposure: (TRGS 900 (DE)), Inhalable fraction Category 1: Substances for which the local effect is limiting value or respiratory sensitizing substances

AGW 0.05 mg / m³ (TRGS 900 (DE)), Inhalable fraction Peak limitation / Exceeding factor: = 2 = Sum of steam and aerosols.

The workplace limit value (AGW) generally applies only to the monomers. For the evaluation of oligomers, see TRGS 430 „Isocyanates“.

Factor of short - term exposure: (TRGS 900 (DE)), Inhalable fraction Peak limit / Excess factor: 1

Substance listed with an override factor and category for short-term value.

High effect (TRGS 900 (DE)), Inhalable fraction.

The substance can be absorbed through the skin.

PNEC

The registration requirement according to REACH regulation (EC) No. 1907/2006 does not apply to polymers.

DNEL

The registration requirement according to REACH regulation (EC) No. 1907/2006 does not apply to polymers.

8.2. Limitation and monitoring of exposure

Personal protective equipment Respiratory protection:

Respiratory protection when breathing dust / vapors are formed.

Hand Protection:

Hand protection not required.

Eye protection:

Eye protection not required

Body protection:

Body protection not required

General protective and hygienic measures:

Wear of closed workwear is recommended. When using do not eat, drink or smoke. Wash hands and / or face before breaks and work. After work for skin cleansing and skin care.

SECTION 8: Physical and chemical properties

8.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften

Physical state:	granules
Colour:	Clear to opaque
Odor:	Odorless
Odor threshold:	not applicable
pH-Wert:	not applicable
Softening temperature:	> 120 °C
Boiling temperature:	The product is a non-volatile solid.
Flash point:	not applicable
Evaporation rate:	Can be estimated on the basis of the Henry constant or the vapor pressure.
Flammability:	Non-flammable (Directive 92/69 / EEC, A.10)
Lower explosion limit:	Not relevant for classification and labeling.
Upper Explosive Limit:	Not relevant for classification and labeling.
Ignition temperature:	> 400 °C
Vapor pressure:	not applicable

Density: approx. 1,1 - 1,2 g/cm³
(20 °C)

Relative vapor density (air): not applicable

Water solubility: insoluble

Distribution coefficient n-octanol / water (Log Kow): not applicable

Thermal decomposition: No decomposition if the instructions / instructions for storage and handling are observed.
> 230 °C
Thermal decomposition above the stated temperature is possible.
In the case of prolonged thermal stress, decomposition products can be split off.

Viscosity, dynamic: not applicable

9.2. Other Information

Bulk density: 500 - 700 kg/m³
(20 °C)

Other Information:
If necessary, other physical and chemical parameters are given in this section.

SECTION 9: Stability and reactivity**10.1. Reactivity**

No hazardous reactions if the instructions / instructions for storage and handling are observed become.

Metal corrosion:

Does not corrosive on metal.

10.2. Chemical stability

The product is stable when the instructions / instructions for storage and handling are observed.

10.3. Possibility of hazardous reactions

No hazardous reactions if stored and handled as directed.

10.4. Conditions to avoid

No anticipated conditions to be expected.

10.5. Incompatible materials**Substances to be avoided:**

No substances to be avoided.

10.6. Hazardous decomposition products

If the material is overheated, gaseous decomposition products can be released. Possible thermal decomposition products:

Carbon monoxide, carbon dioxide, hydrogen cyanide; Hydrogen cyanide

Isocyanates, nitric oxides

SECTION 10: Toxicological information**11.1. Information on toxicological effects****Acute toxicity****Assessment Acute toxicity:**

In case of single contact with the skin, practically non-toxic. After a single inhalation, practically non-toxic. After a single oral intake practically non-toxic.

Experimental / calculated data:

LD50 rat (oral):> 5,000 mg / kg

The product has not been tested. The statement was derived from substances / products of similar structure or composition.

Irritation**Assessment of irritation:**

Does not irritate the eyes. Does not irritate the skin. The product has not been tested. The statement was derived from substances / products of similar structure or composition.

Respiratory tract / skin sensitization**Assessment Sensitization:**

Due to the chemical structure there is no suspicion of a sensitizing effect.

Germ cell maturity**Assessment Mutagenicity:**

The chemical structure gives no particular suspicion of such an effect.

Carcinogenicity**Assessment Carcinogenicity:**

The chemical structure gives no particular suspicion of such an effect.

Reproductive toxicity**Assessment Reproductive toxicity:**

The chemical structure gives no particular suspicion of such an effect.

Developmental toxicity**Evaluation Teratogenicity:**

The chemical structure gives no particular suspicion of such an effect.

Specific target organ toxicity (single exposure)**Assessment STOT simple:**

On the basis of the available information, no specific organ toxicity can be expected.

Repeated dose toxicity and specific target organ toxicity (repeated exposure)**Repeated dose toxicity:**

Repeated dermal absorption of the substance did not cause substance-induced effects. Repeated inhalation of the substance did not cause substance-induced effects. Repeated oral uptake of the substance did not cause substance-induced effects.

Aspiration hazard

Do not take an aspiration hazard.

SECTION 11: Ecological information**12.1. toxicity****Assessment of aquatic toxicity:**

Acute toxicity to aquatic organisms.

12.2. Persistence and degradability**Evaluation of biodegradation and elimination (H20):**

Very biodegradable.

Information on elimination:

Very biodegradable.

12.3. Bioaccumulation potential**Assessment Bioaccumulation potential:**

Does not accumulate in organisms appreciably.

12.4. Mobility in the ground**Assessment Transport between environmental compartments:**

Adsorption on soils: The test is not possible due to the product properties.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): The product does not contain a substance that meets the PBT criteria (persistent / bioaccumulative / toxic).

12.6. Other adverse effects

The product does not contain substances listed in Annex I to Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

12.7. Additional information

Adsorbable organic bound halogen (AOX):

The product contains no organically bound halogen.

SECTION 12: Disposal considerations**13.1. Waste treatment methods**

Can be reused without reprocessing.

May be disposed of or disposed of in accordance with local regulations with household waste.

Waste key:

07 02 13 Plastic waste

Uncleaned packaging:

Completely emptied packagings can be recycled

SECTION 13: Transport information

Land transport

ADR

No dangerous good in the sense of transport regulations

UN number: Not applicable

UN proper shipping name: Not applicable

Transport hazard classifications: Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for the user: Not known

RID

No dangerous good in the sense of transport regulations

UN number: Not applicable

UN proper shipping name: Not applicable

Transport hazard classifications: Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for the user: Not known

Inland waterway transport

ADN

No dangerous good in the sense of transport regulations

UN number: Not applicable

UN proper shipping name: Not applicable

Transport hazard classifications: Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for the user: Not known

Sea transport

IMDG

No dangerous good in the sense of transport regulations

UN number: Not applicable

UN proper shipping name: Not applicable

Transport hazard classifications: Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for the user: Not known

Air transport

IATA/ICAO

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

Special precautions for the user: Not known

Special precautions for user: None known

14.1. UN number

See corresponding entries for „UN number“ of the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for „proper UN shipping name“ of the respective regulations in the tables above.

14.3. Transport hazard classes

See corresponding entries for „Danger Hazard Class (s)“ of the respective regulations in the tables above.

14.4. Packing group

See corresponding entries for „Packing group“ of the respective regulations in the tables above.

14.5. Danger to the environment

See corresponding entries for „environmental hazards“ of the respective regulations in the tables above.

14.6. Special precautions for the user

See relevant entry for „Special precautions for the user“ of the respective regulations in the tables above.

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

Regulation: not rated

Transport Allowed: not rated

Pollutant name: not rated

Pollution category: not rated

Ship type: not rated

Transport in bulk according to Annex II of MARPOL73178 and the IBC Code

Regulation: Not evaluated

Shipment approved: Not evaluated

Pollution name: Not evaluated

Pollution category.: Not evaluated

Ship Type: Not evaluated

SECTION 14: Regulatory information

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

Water hazard class (Annex 4 of the VwVwS (Germany)):
(Nwg) Not hazardous to water.

MAK values (TRGS 900)

If other regulations are not applicable elsewhere in this safety data sheet, they are in this subsection.

If domestic and foreign products are intended to be manufactured from the products (for example articles with food or skin contact, toys) or medical devices, national and international laws and regulations must be taken into account. Where such products do not exist, the consumer goods or medical devices should meet the legal requirements applicable in the European Union. Consultation with our sales department and the product safety department is strongly recommended.

15.2. Chemical safety assessment

The registration requirement according to REACH regulation (EC) No. 1907/2006 does not apply to polymers.

SECTION 15: Other information

1 The trademark may not be registered in all countries.

The above information in this safety data sheet is based on our present knowledge and experience and describes the product with regard to safety requirements. The data are in no way to be regarded as a description of the nature of the product (product specification). An agreed condition or the suitability of the product for a specific application can not be derived from our data in the safety data sheet. Any proprietary rights as well as existing laws and regulations must be observed by the recipient of our product on his own responsibility.

SECTION 16: Emergency contact

Contact:

Contact person: Michael Elstner

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Mail: emergency@germanreprap.com