

Material safety data sheet

in accordance with Regulation (EC) No 1907/2006

Issued on: 08.05.2024
Revised on : ---
Valid from: 08.05.2024
Version: 07
Replaces version: 06, 01.08.2020

Section 1: Name of the substance or mixture and of the company

1.1 Product Identifier

Polymer granules
Polyamide 6.6
EG-No.: ---
CAS-No.: 32131-17-2
Commercial name and synonyms: Polyamid 66 granules, Nylon 6.6, PA 6.6

Other designations:

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

Relevant identified uses:
Fibres for textile and technical applications.
Uses advised against: ---

1.3 Details on the supplier providing the safety data sheet

Supplier

Indorama Ventures Mobility Obernburg GmbH

Street/Postal Box

Industrie Center Obernburg

Nationality/zip code/place

D-63784 Obernburg

Contact point for technical information

QHSE Department

Phone / Fax / E-mail

+49 6042 81 2454/---/ E-Mail: Markus.Kuhmann@php-fibers.com

1.4 Emergency phone number

+49 6022 812666, Obernburg plant (DE), plant fire department

Section 2: Potential hazards

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
The product is not classified as dangerous according to EU regulation 1272/2008/EG.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008
The product is not to be labelled as dangerous according to EU regulation 1272/2008/EG.

2.3 Other hazards

PA 6.6 dust may cause irritation to the eyes and respiratory system. Accumulation of dust could pose a fire/explosion hazard if ignition sources and sufficient concentrations are present.

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Section 3: Composition/information on ingredients

3.1 Substances

Main component of the substance

Substance name: Polyamide 6.6

Index-No.: ---

EG-No.: ---

CAS-No.: 32131-17-2

Additives and individual ingredients

Additives (catalyst, stabilizers, etc.)

Section 4: First aid measures

4.1 Description of the first aid measure

Following inhalation

A hazard from inhalation of this product is unlikely if any MAK values that may have been set are observed. Therefore no special treatment is necessary.

Dust and decomposition products must be avoided by exhausting and ventilating. Anyone who has been exposed to excessive amounts of dust should go out into the fresh air and, if coughing or other symptoms develop, seek medical attention.

Following skin contact

On contact with the molten product:

Cool quickly with water and immediately place yourself under medical care. Do not attempt to remove solidified polymer from the skin. The melted product can cause severe burns.

After contact with granules / dust:

Wash with soap and water. Seek medical advice if irritation occurs.

Following eye contact

Eyes should be rinsed immediately with plenty of water. If irritation persists, medical attention should be sought.

Following ingestion

Do not induce vomiting if swallowed accidentally.

No other special precautions required. Seek medical attention if necessary.

4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special treatment needed

Section 5: Fire fighting measures

5.1 Extinguishing media

Suitable: All common extinguishing agents (e.g. foam, carbon dioxide, dry extinguishing agent, water spray)

Not suitable: Do not use a full water jet to prevent the fire from being dispersed and spread.

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5.2 Special hazards arising from the substance or mixture

Dangerous combustion / decomposition products: Carbon monoxide, carbon dioxide and each after temperature and air supply also toxic low-molecular organic compounds, such as hydrocyanic acid, carbon monoxide, nitrogen oxides, organic acids or polymer fragments.

Note: Pneumatic conveying and other mechanical processes can lead to the formation of combustible dust or explosive dust-air mixtures. To reduce possible dust explosions, the accumulation of dust must be prevented.

5.3 Advice for fire-fighters

Wear respiratory protective equipment independent of ambient air.

It is to be assumed that the decomposition products formed during a fire cause the extinguishing water to contain a proportion of organic substances in the form of TOC (Total Organic Carbon) or CSB/COD (Chemical Oxygen Demand). As the concentration of water-polluting substances naturally depends on the fire behaviour and the quantity of extinguishing water, it is recommended that in the case of larger fires the extinguishing water is collected as far as possible. The approval of the competent authority must be obtained before discharge into the sewage system. No exceptional difficulties are expected for the functioning of biological sewage treatment plants.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not inhale dust. Avoid skin and eye contact. Scattered granules pose a danger of slipping!
Melted product may cause burns. Handle melted product with care.

6.2 Environmental precautions

Prevent further leakage or spillage if this can be done without risk. Avoid penetration into drains, soil or waterways. Avoid release into the environment.

6.3 Methods and material for containment and cleaning up

Take up material with suitable means (danger of slipping and tripping).
Consider reusing the material.
For details of disposal see point 13.

6.4 Reference to other sections

Section 7: Handling and storage

7.1 Precautions for safe handling

Keep containers and piping systems well sealed. Reduce / avoid dust formation by gentle handling techniques!
Face and body protection when handling hot polymer mass! Ensure good ventilation / extraction at the workplace.

Measures to protect against fire and explosions

Accumulation of dust could cause a fire/explosion hazard if concentrations are sufficient. Keep ignition sources away. Be aware of the effects of electrostatic charge.

Measures to prevent dust and aerosols

Ensure adequate ventilation and suction at the workplace. Keep ignition sources away. Be aware of the effects of electrostatic charge.

Environmental precautions

General hygiene precautions

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7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Protect from heat, sparks and fire. Keep this product away from food, drink or feed. Dry granulates can become statically charged if, during transfer and mixing Friction occurs. The material is stable under normal storage conditions. Observe the technical information regarding optimum processing.

Requirements for storage rooms and vessels

Protect the product from dirt, moisture, direct sunlight and fire sources.

Storage category:

7.3 Specific end uses

Industry and sector-specific guidelines

Section 8: Exposure controls / Personal protection equipment

8.1 Parameters to be monitored

Parameters to be monitored:

- In general:

The accumulation of and contact with PA 6.6 dust and decomposition products (overheating in the drying/melt spinning process) must be avoided by good local exhaust ventilation and sufficient fresh air supply.

- Dust limit values for workplace exposure:

The country-specific dust limit value must be observed. In the Federal Republic of Germany, TRGS 900 currently applies:

- 0.6 mg/m³ for A-dust (A = alveolar fraction) or

- 10 mg/m³ for E-dust (E = respirable fraction)

8.2 Exposure controls and monitoring

Suitable technical control equipment

See item 7.1

Individual protection measures - Personal protective equipment

Eye- / face protection

Safety glasses with side protection.

Skin protection

Gloves

Wear suitable chemical resistant gloves. Avoid contact with the skin.

Ask the glove manufacturer for information on the glove's penetration properties.

Respiratory protection

Respiratory protection: No special precautions, except in case of fire or if the exhaust / ventilation is insufficient (see point 8.1.). Wear respiratory protection if workplace limits are exceeded.

Heat-/cold protection

Wear heat-resistant gloves when handling molten material.

Limitation and monitoring of environmental exposure

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Vacuumed dust must be retained by effective filter systems and disposed of in accordance with regulations.

Section 9: Physical and chemical properties

9.1 Information on the basic physical and chemical characteristics

Appearance	Granules
- State of matter:	Solid
- Colour :	transparent to whitish
Smell:	Weak, characteristic
Odour threshold :	---
pH value :	No information available
Melting point/freezing point :	255 - 260 °C
Start of boiling and boiling range :	---
flash point :	Approx. 400 °C
evaporation rate :	---
Flammability (solid, gaseous) :	---
Upper/lower flammability or explosive limits	---
Vapour pressure	---
Vapour density	---
Relative density	1.13 - 1,15 [g/cm ³]
Solubility(ies)	Insoluble
Partition coefficient: n-octanol/water	---
Auto-ignition temperature	510 °C
Decomposition temperature	Approx. 310 °C
Viscosity :	No information available
Explosive properties	---
Oxidising properties	---

9.2 Other information

Bulk density: approx. 700 kg/m³

Section 10: Stability and reactivity

10.1 Reactivity

The product is stable and non-reactive under normal conditions of use, storage or transport.

10.2 Chemical stability

Stable when stored and handled as intended.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

Temperatures > 310 °C: Thermal decomposition of the granules starts at 310 °C. Hazardous decomposition products occur during this process. The most important pyrolysis or combustion product is carbon monoxide. Carbon dioxide, hydrocyanic acid, water and low-molecular organic decomposition products have also been found.

10.5 Incompatible materials

Can react with strong oxidizing agents, is decomposed by strong bases or acids.

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10.6 Hazardous decomposition products

None under normal storage conditions.
For combustion gases, see section 5.

Section 11: Toxicological information

11.1 Information on toxicological effects

No specific toxicology data are available. When used as intended, no particular hazards or health impairments have been identified to date.

Acute toxicity

No oral, dermal or inhalation toxicity is assumed.

Corrosive/irritating effect on the skin

No or only weak irritant effect by PA 6.6 granules is assumed.

Severe eye damage/irritation

No information available

Sensitisation of the respiratory tract/skin

No information available

Keimzell-Mutagenität

No information available

Carcinogenicity

No information available

Toxicity to reproduction

No information available

Specific target organ toxicity at single exposure

No information available

Specific target organ toxicity on repeated exposure

No information available

Aspiration hazard

No information available

Symptoms and effects (delayed and chronic) with details of the pathways of exposure also: information on the toxicokinetics, metabolism and distribution

No information available

Section 12: Environmental information

12.1 Toxicity

No information available. No acute toxicity is expected.

12.2 Persistenz und Abbaubarkeit

The product is not ecotoxic according to its chemical nature.

12.3 Bioaccumulation potential

No information available.

12.4 Mobility in the soil

Mobility Polymer: Not soluble in water

12.5 Result of the PBT and vPvB assessment

No information available.

12.6 Other harmful effects

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If further processing is carried out using water, any waste water produced must be fed into a purification plant in accordance with local statutory regulations.

Section 13: Disposal considerations

13.1 Waste treatment methods

Treatment of contaminated packaging

In accordance with local and national legal requirements.

Waste code according to the Waste Catalogue Regulation (AVV)

16 01 19 (Plastics) (From automotive recycling)

20 01 39 (Kunststoffe) (Aus Haushaltsabfällen)

Waste treatment processes:

Where recycling is not possible, the product may be landfilled or incinerated in appropriate incinerators, subject to local government regulations. All methods of disposal must comply with Directive 2008/98/EC (Waste Framework Directive) and its amendments, as well as with its provisions for transposition into national law.

Special precautions

Relevant EU or other regulations

Section 14: Transport information

14.1 UN number

Not dangerous goods

14.2 UN proper shipping name

ADR/RID

Not dangerous goods

IMDG-Code / ICAO-TI / IATA-DGR

Not dangerous goods

14.3 Transport hazard classes

14.4 Packaging group

14.5 Environmental hazards

Identification of environmentally hazardous substances

ADR/RID / IMDG-Code / ICAO-TI / IATA-DGR: ☐ yes / ☒ no

Marine Pollutant: ☐ yes / ☒ no

14.6 Special precautions for the user

14.7 Carriage in bulk according to Annex II of MARPOL Convention and IBC Code

Pollution category (X, Y oder Z) :

Type of vessel (1, 2 oder 3) : ---

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Section 15: Legal provisions

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

EU regulations e.g.

Regulation (EC) No 2037/2000 (substances that deplete the ozone layer):

Not relevant

Regulation (EC) No 850/2004 (Persistent Organic Pollutants):

Not relevant

Regulation (EC) No 689/2008 (export and import of dangerous chemicals):

Not relevant

Regulation (EC) No 648/2004 (Detergents Regulation):

Not relevant

Restrictions under Title VIII of Regulation (EC) No 1907/2006:

Not relevant

National regulations e.g.

Water hazard class

Not hazardous to water according to § 19g para. 5 WHG (Water Resources Act) as well as according to VwVwS (Administrative Regulation on Substances Hazardous to Water): Identification No. 766 (plastics, e.g. granulates, moulded parts, fibres, films, plastic resins, insofar as they are solid, non-dispersed, water-insoluble and indifferent)

Solvents regulation (31. BImSchV)

Not relevant

Major Accidents Regulation (12. BImSchV)

Not relevant

Technical Instructions on Air Quality Control (TA-Luft)

Not relevant

Other relevant regulations

15.2 Chemical Safety Evaluation

Section 16: Other information

Changes from the last version

Change of name of the manufacturer

Abbreviations

Literature and data sources

Methods used to assess the information for the purpose of classification in accordance with Article 9 of Regulation (EC) No 1272/2008

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Text of the hazard statements and/or safety instructions referred to in sections 2 to 15

Additional Information

The information in this safety data sheet relates exclusively to the granules described herein and not to their use in combination with any other substance or preparation or in any process.

The safety data sheet is intended to protect people and the environment by providing appropriate information to industrial users of polymer granules. It is not intended for the private end user.

For special applications, e.g. in the food industry, hygiene, medical or surgical sector, please contact the manufacturer in the first instance.

To the best of our knowledge, the information contained herein is correct. The above-mentioned However, the manufacturer accepts no liability with regard to the correctness or completeness of the information provided.

Final determination of the suitability of the individual materials is the sole responsibility of the user.

All materials may involve unknown risks and should therefore be used with caution. They are certain risks described herein, but we cannot guarantee that these risks are the only possible risks.