

| PP-02 | | |
|---|--|-------------------------|
| Version 5.0 | Revision Date: 04.04.2024 | Former date: 10.01.2023 |
| SECTION 1: Identification | of the substance/mixture and of th | e company/undertaking |
| 1.1 Product identifier Trade name | : PP-02 | |
| 1.2 Relevant identified uses | of the substance or mixture and uses a | advised against |
| Use of the Substance/Mixture | : Raw material for plastics industry | у |
| 1.3 Details of the supplier of | the safety data sheet | |
| Supplier | : Borealis AG Trabrennstrasse 6-8, 1020 Vienr Telephone: +43 1 22400 0 | na, Austria |
| E-mail address | : <u>sds@borealisgroup.com</u> | |
| 1.4 Emergency telephone nu | mber | |
| II +1 760 476 3962 (3E), Ad | cess code: 336296 | |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Additional Labelling

EUH210 Safety data sheet available on request.

EUH212 Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.





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2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

The product burns, but is not classified as flammable. Dust from the product gives a potential risk for dust explosion.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

| Chemical nature | The product is a polypropylene polymer. It contains additives. |
|-----------------|---|
| | It contains mineral filler. |

Components

| Componente | | | | |
|--|---|---|--------------------------|--|
| Chemical name | CAS-No. EC-No. Index-No. Registration number | Classification | Concentration (% w/w) | |
| titaniumdioxide | 13463-67-7 236-675-5 01-2119489379-17 | Carc. 2; H351 | >= 1 - < 10 | |
| bis(2,2,6,6-tetramethyl-4- piperidinyl)decanedioate | 52829-07-9 258-207-9 | Eye Dam. 1; H318 Repr. 2; H361f Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M-Factor (Acute aquatic toxicity): 1 | >= 0,25 - < 1 | |
| Substances with a workplace exposure limit : | | | | |
| magnesium silicate | 14807-96-6 238-877-9 | | >= 1 - < 10 | |

For explanation of abbreviations see section 16.





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SECTION 4: First aid measures

| .1 Description of first aid measures | | |
|--------------------------------------|--|--|
| If inhaled | : Move to fresh air. | |
| In case of skin contact | If molten material comes in contact with the skin, cool with plenty of water. DO NOT remove solidified product, as removal could result in severe tissue damage. Obtain medical attention. | |
| In case of eye contact | : Flush eyes with water as a precaution. Get medical attention if irritation develops and persists. | |
| If swallowed | : Rinse mouth with water. Consult a physician if necessary. | |
| 4.2 Most important symptoms and | l effects, both acute and delayed | |
| Symptoms | : Inhalation of dust may irritate the respiratory tract. Prolonged inhalation of high doses of decomposition products may give headache or irritation of the respiratory tract. | |
| 4.3 Indication of any immediate m | edical attention and special treatment needed | |

Treatment : Treat symptomatically. No specific instructions needed.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water in spread jet, dry chemicals, foam or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

| Specific hazards during | : Principal toxicant in the smoke is carbon monoxide. |
|-------------------------|---|
| firefighting | |

5.3 Advice for firefighters

| Special protective equipment | : | Wear self-contained breathing apparatus and protective suit. |
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| for firefighters | | |





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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation.

6.2 Environmental precautions

Should not be released into the environment.

It is recommended to implement systems and practices (such as Operation Clean Sweep®) to prevent accidental release of plastics in to the environment.

6.3 Methods and material for containment and cleaning up

Vacuum or sweep up spill. All spill of material must be removed immediately to prevent slipping accidents. Recycle or dispose loose material properly. Do not flush into surface water or sanitary sewer system.

6.4 Reference to other sections

For personal protection see section 8. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

| Advice on safe handling | : | During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released. Provide adequate ventilation. Local exhaust ventilation may be necessary. Avoid inhalation of dust and decomposition fumes. Avoid contact with skin and eyes. |
|---|---|--|
| Advice on protection against fire and explosion | : | Dust from the product gives a potential risk for dust explosion. All equipment shall be grounded. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. |
| Hygiene measures | : | When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. |





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| 7.2 Conditions for safe storage Requirements for storage areas and containers | e, including any incompatibilities Safety aspects do not require an of storage. | y special precautions in terms |
| areas and containers | or storage. | |

storage stability 7.3 Specific end use(s)

Specific use(s)

: Raw material for industry

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

For national exposure limit (OEL) values, check country specific safety data sheets.

8.2 Exposure controls

Engineering measures

Provide adequate ventilation. Local exhaust ventilation may be necessary.

Personal protective equipment

| Eye protection | : | Safety glasses Use eye protection according to EN 166. |
|-----------------------------|-----|--|
| Hand protection Material | : | Nitrile rubber |
| Remarks | : | Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. |
| Skin and body protection | : | Protective clothing |
| Respiratory protection | : | In case of insufficient ventilation: Respirator with ABEK-P3 filter or self-contained breathing apparatus. In case of dust development use dust mask. |
| Protective measures | : | Appropriate personal protective equipment (PPE) shall be worn in accordance with Regulation (EU) 2016/425. |
| Environmental exposure cont | tro | bls |
| General advice | : | Should not be released into the environment. It is recommended to implement systems and practices (such as Operation Clean Sweep®) to prevent accidental release of |

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plastics in to the environment.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| Physical state Colour Odour Melting point/range | : | pellets transparent slight 100 - 170 °C |
|--|---|--|
| Boiling range | : | Decomposes on heating. |
| Flammability | : | The product is not flammable. |
| Upper explosion limit / Upper flammability limit | : | Not applicable |
| Lower explosion limit / Lower flammability limit | : | Not applicable |
| Flash point | : | Not applicable, (solid) |
| Auto-ignition temperature | : | > 320 °C |
| рН | : | Not applicable insoluble |
| Viscosity Viscosity, kinematic | : | No data available |
| Solubility(ies) Water solubility | : | insoluble |
| Partition coefficient: n- octanol/water | : | Not applicable insoluble |
| Vapour pressure | : | Not applicable (solid) |
| Density | : | 0,9 - 1,0 g/cm³ |
| Bulk density Particle size | : | 500 - 600 kg/m³ 3 - 10 mm |
| | | Method: Image analysis (surface-based) |

9.2 Other information





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| Explosives | : Not explosive | |
| Oxidizing properties | : The substance or mixture is not c | lassified as oxidizing. |
| Evaporation rate | : Not applicable (solid) | |

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

The product is a stable thermoplastic, with no chemical reactivity.

10.3 Possibility of hazardous reactions

Hazardous reactions : None known.

10.4 Conditions to avoid

Conditions to avoid : Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Materials to avoid : None known.

10.6 Hazardous decomposition products

Under fire conditions: Carbon monoxide During processing and thermal treatment of the product, small amounts of volatile hydrocarbons may be released.

SECTION 11: Toxicological information

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

Acute toxicity

Based on available data, the classification criteria are not met.

Components:

bis(2,2,6,6-tetramethyl-4-piperidinyl)decanedioate:

Acute oral toxicity : LD50 (Rat): 3.700 mg/kg





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| Acute inhalation toxicity | : LC50 (Rat): 0,5 mg/l Exposure time: 4 h | |
| Acute dermal toxicity | : LD50 (Rat): > 3.170 mg/kg | |
| Skin corrosion/irritation Based on available data, th | e classification criteria are not met. | |
| Serious eye damage/eye Based on available data, th | irritation e classification criteria are not met. | |
| Respiratory or skin sensi | tisation | |
| Skin sensitisation Based on available data, th | e classification criteria are not met. | |
| Respiratory sensitisation Based on available data, th | e classification criteria are not met. | |
| Germ cell mutagenicity Based on available data, th | e classification criteria are not met. | |
| Carcinogenicity Based on available data, th | e classification criteria are not met. | |
| <u>Product:</u> Remarks | The classification as a carcinoger mixtures in powder form containir dioxide which is in the form of or i aerodynamic diameter <= 10 μm. | ng 1 % or more of titanium ncorporated in particles with |
| Reproductive toxicity | e classification criteria are not met. | |
| STOT - single exposure | | |
| • • | e classification criteria are not met. | |
| STOT - repeated exposur | e | |
| Based on available data, th | e classification criteria are not met. | |
| Aspiration toxicity Based on available data, th | e classification criteria are not met. | |





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| 1.2 Information on other ha | zards | |
| Endocrine disrupting pr | operties | |
| Product: | | |
| Assessment | : The substance/mixture does not considered to have endocrine die to REACH Article 57(f) or Comm (EU) 2017/2100 or Commission levels of 0.1% or higher. | srupting properties according hission Delegated regulation |
| Further information | | |
| Product: | | |
| Remarks | The product is not classified as I | nazardous to human health |

Remarks : The product is not classified as hazardous to human health. Information given is based on data of the components.

SECTION 12: Ecological information

12.1 Toxicity

Components:

bis(2,2,6,6-tetramethyl-4-piperidinyl)decanedioate:

| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia magna (Water flea)): 0,57 mg Exposure time: 48 h Test Type: Short term | g/I |
|---|--|-----|
| M-Factor (Short-term (acute) aquatic hazard) | : 1 | |

| Toxicity to daphnia and other aquatic invertebrates | : | EC50: 0,96 mg/l Exposure time: 21 d |
|---|---|--|
| (Chronic toxicity) | | Species: Daphnia magna (Water flea) |

12.2 Persistence and degradability

| Product: | | |
|------------------|---|------|
| Biodegradability | : | Rema |

: Remarks: Not readily biodegradable.

12.3 Bioaccumulative potential

Product:





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| Bioaccumulation | : Remarks: Does not accumulate in | organisms. |
| 12.4 Mobility in soil | | |
| Product: | | |
| Mobility | : Remarks: Not expected to adsorb | on soil. |
| 12.5 Results of PBT and vPv | /B assessment | |
| Product: | | |
| Assessment | This substance/mixture contains r to be either persistent, bioaccumu very persistent and very bioaccum 0.1% or higher | lative and toxic (PBT), or |
| 12.6 Endocrine disrupting p | roperties | |
| Product: | | |
| Assessment | The substance/mixture does not c considered to have endocrine disr to REACH Article 57(f) or Commis (EU) 2017/2100 or Commission R levels of 0.1% or higher. | upting properties according ssion Delegated regulation |
| 12.7 Other adverse effects | | |
| Product: Additional ecological information | : Should not be released into the er | nvironment. |

SECTION 13: Disposal considerations

| 13.1 Waste treatment methods | |
|------------------------------|---|
| Product | Dispose of contents/ container to an approved waste disposal plant. Reuse or recycle if not contaminated. Check with local regulations. |
| Contaminated packaging | : Empty containers should be taken to an approved waste handling site for recycling or disposal. |





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SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks

: Not dangerous goods in the meaning of ADR/RID, ADN, IMDG-Code, ICAO/IATA-DGR

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable

15.2 Chemical safety assessment

no

SECTION 16: Other information

Full text of H-Statements

H318

: Causes serious eye damage.





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| H351 H361f H400 H411 | Suspected of causing cancer if inhaled. Suspected of damaging fertility. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. | |
| Full text of other abbreviation | S | |
| Aquatic Acute Aquatic Chronic Carc. Eye Dam. Repr. | Short-term (acute) aquatic hazard Long-term (chronic) aquatic hazard Carcinogenicity Serious eye damage Reproductive toxicity | |
| Further information | | |
| Other information | Issued according to Regulation (EC) No 1907/2006, Annex II, and its amendments. Changes since the last version are highlighted in the margin. This version replaces all previous versions. Borealis, Group Product Stewardship | |
| | | |
| Sources of key data used to compile the Safety Data Sheet | The classification information of components is based on raw material supplier data. | |

Disclaimer

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