

* **1 Identification of substance:**
- Product details:
- Trade name: Polybutene-1 PB4237 Grey
- Article number: 13077

- Application of the substance / the preparation Synthetic resin

- Manufacturer/Supplier: Basell Polyolefins

- Informing department:

Regulatory Affairs Department

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2 Composition/Data on components:
- Chemical characterization
- Description: Polymer mixture containing mineral fillers

- Dangerous components: Void

3 Hazards identification
- Information pertaining to particular dangers for man and environment

The molten product adheres to the skin and causes burns.

Spilled material may present a slipping hazard.

Possible production of electrostatic chargings when used.

The working steams can irritate the eyes as well as the respiratory tract.

According to proper EU-guidelines not dangerous for the environment.

- Classification system

This product is, according to EEC directives 1999/45, 67/548,76/769 and following amendments, not classified as hazardous.

4 First aid measures
- General information

At room temperature the product is neither an irritant nor gives off hazardous vapours.

The measures listed below apply to critical situations (Fire, incorrect process conditions).

- After inhalation

In case of excessive inhalation of fumes move the person to fresh air. Call for medical help.

Keep person warm, if necessary give mouth-to-mouth resuscitation, or artificial respiration.

- After skin contact

After contact with the molten product, cool rapidly with cold water.

Do not pull solidified product away from the skin.

Seek immediate medical advice.

- After eye contact


Rinse opened eye for several minutes under running water. Then consult doctor.

- After swallowing

No specific measures have to be taken if the product is swallowed.

Get medical advice if necessary.

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5 Fire fighting measures

- Suitable extinguishing agents

Water haze

Foam

Carbon dioxide

Chemical powder

- For safety reasons unsuitable extinguishing agents None

- Special hazards caused by the material, its products of combustion or resulting gases:

In case of fire it can release :

water (H₂O), carbon dioxide (CO₂), and when lacking oxygen (O₂), carbon monoxide (CO)

The products of the burning are dangerous.

- Protective equipment:



Put on breathing apparatus.

6 Accidental release measures

- Person-related safety precautions:

No specific measures are necessary.

See point 8

- Measures for environmental protection:

No special measures required.

See points 12 and 13.

- Measures for cleaning/collecting:

Small spills:

Put into a labelled container and provide safe disposal.

Large spills:

Act as during a limited release.

Recycle product or dispose properly.

See point 13

- Additional information: Collect spilled polymer: It could cause falls (Danger of slipping).

7 Handling and storage

- Handling

- Information for safe handling:

No special requirements necessary, if handled at room temperature.

Avoid spilling the product, as this might cause falls.

When bringing the material to processing temperatures gases might develop, forming:

hydrocarbon substances with low molecular weight and their oxidation products

traces of formaldehyde and acrylaldehyde

traces of acids (Formic acid, acetic acid)

Provide appropriate ventilation for such processing conditions.

Pay particular attention when handling the molten material. Loads tend to keep the material in compact form, thus releasing heat slower than regular resin. The thermal decomposition of the polymer might take a prolonged period of time, releasing hazardous decomposition products.

Do not exceed recommended working temperatures of coloured materials, as the colouring agents might develop decomposition products hazardous to health.

Take precautionary measures against explosion risks, as all types of polymers may develop dust during transporting or grinding of granules.

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- **Storage**
- **Requirements to be met by storerooms and containers:**
Take precautionary measures to prevent the formation of static electricity.



Do not smoke.

- Ground equipment electrically.
- Electric safety equipment.
- Open flames prohibited.
- Store the product in bags, car silos, container, or large cartons.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Protect from heat and direct sunlight.
Store container in a well ventilated position.
Store under dry conditions.
Do not stack up the octabins.
- **Specific applications** For safe stacking follow the storage recommendations specific for this product

8 Exposure controls and personal protection

- **Components with limit values that require monitoring at the workplace:**

13463-67-7 titanium dioxide

WEL	Long-term value: 10* 4** mg/m ³ *total inhalable **respirable
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- **Additional exposure limit values for possible processing dangers:**

107-02-8 acrylaldehyde

WEL	Short-term value: 0.7 mg/m ³ , 0.3 ppm Long-term value: 0.23 mg/m ³ , 0.1 ppm
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50-00-0 formaldehyde

WEL	Short-term value: 2.5 mg/m ³ , 2 ppm Long-term value: 2.5 mg/m ³ , 2 ppm
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64-18-6 formic acid

WEL	Long-term value: 9.6 mg/m ³ , 5 ppm
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- **Additional information:** see point(s) 7, 9.

- **Personal protective equipment**
- **General protective and hygienic measures**
Do not eat or drink while working.
No smoking.
Provide system for collecting the vapors which are created during the working process.
- **Breathing equipment:**
If appropriate ventilation is not available use face mask when handling the molten product.
- **Protection of hands:** Heat resistant gloves
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety goggles recommended during refilling.
- **Body protection:** Normal overalls

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9 Physical and chemical properties:

- General Information

Form:	Granulate
Colour:	Different according to colour
Odour:	Weak, characteristic

- Change in condition

Melting point/Melting range: 123-126°C

- Flash point:

Not applicable (see attachment to guideline 92/69/EEC, A.9)

- Danger of explosion:

Product is not explosive.
See point(s) 7.

- Density at 20°C

0.93 g/cm³

- Solubility in / Miscibility with

Water: Insoluble

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:

The product is stable when handled and stored under normal conditions.

- Materials to be avoided: Strong oxidation agent

- Dangerous products of decomposition: No hazardous decomposition products known at room temperature.

11 Toxicological information

- Acute toxicity:

- Primary irritant effect:

- on the skin: No irritant effect.

- on the eye: No irritant effect.

- Sensitization: No sensitizing effect known.

- Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information:

- Information about elimination (persistence and degradability):

- Other information: The product is not biodegradable.

- Behaviour in environmental systems:

- Mobility and bioaccumulation potential:

Floats on water.

There is no bioaccumulation.

- General notes:

The product is not toxic, small particles can have physical effects on water and soil organisms.

13 Disposal considerations

- Product:

- Recommendation

The material can be re-used or recycled according to the regulations of Guideline EG 94/62.

Disposal through controlled incineration or authorised waste dump.

- European waste catalogue 070213

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be done according to official regulations.

14 Transport information

- **Transport/Additional information:**
According to national and international guidelines, which regulate the road-, rail-, air- and seairtransport, this product is classified as not dangerous.

* 15 Regulatory information

- **Designation according to EC guidelines:**
The material is not subject to classification according to EC lists and other sources of literature known to us. Observe the normal safety regulations when handling chemicals
- **National regulations**
- **Other regulations, limitations and prohibitive regulations**
Generally all national regulations regarding this product type apply.

* 16 Other information:

The information supplied has been based upon the current level of information available, for the purpose of specifying the requirements regarding environment, health and safety in conjunction with the product. They are not to be interpreted as a warranty for specific product characteristics. Basell takes no responsibility for inappropriate use, processing and handling by purchasers and users of the product.

- **Department issuing data specification sheet:** Regulatory Affairs Department
- **Contact:** Dr. Patrizia Busi
- **Bibliography:**
 - Directive EEC 67/548 and following adaptations
 - Directive 1999/45/EC, as amended
 - Directive 76/769/EEC and following amendments
 - Directive 2001/58/EC
 - RTECS (Registry of toxic effects of chemical substances 1985-1986 edition)
 - Frostling, Hof, Jacobson, Pfaffli, Zitting, "Thermal decomposition products from plastics", 2-Polypropylene and poly vinyl chloride, 1983
 - EINECS/ELINCS
- *** Data compared to the previous version altered.** Section 7

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