

P84 Powder

1. Identification

Product identifier used on the label:

P84 Powder VPD (325, 425, 1200 mesh)
P84 Powder HT VPD (325/+1200, 325, 425, 1200 mesh)
P84 Powder STD (140/325, 200, 325, 425, 1200 mesh; 45/75 µm)
P84 Powder HCM (40, 200, 325, 1200 mesh)
P84 Powder HT HCM (40, 325, 1200 mesh)
P84 Powder HP and HP/HT HCM (40 mesh)
P84 Granulate (STD, SG, STD/HT, SG/HT)

Recommended use of the chemical and restrictions on use:

Recommended use: Plastics industry, plastics / polymer processing

Details of the supplier of the safety data sheet:

Ensinger Sintimid GmbH
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Österreich
Tel. +43 7662 88 788 0
www.ensingerplastics.com

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Tel. +43 7672 701-3572

2. Hazards identification

Classification of the product according to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200:

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

Label elements:

The product is not subject to specific labelling in accordance with GHS criteria.

Other hazards:

May form combustible dust concentration in air.
The product is under certain conditions capable of dust explosion.

3. Composition/information on ingredients

Description of the mixture:

Mixture based on aromatic polyimide (PI).
Possibly containing additives and processing aids.

Information on ingredients:

This product contains no hazardous components.
The product may contain particles small enough to create a dust hazard.

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4. First aid measures

After inhalation:

After inhalation of product dust or thermal decomposition products, remove person from the danger zone. Fresh air, oxygen supply, apply artificial respiration if necessary. Keep quiet and warm and seek medical help.

After skin contact:

After contact with product dust wash skin with plenty of water and soap. In the event of skin reactions seek medical advice.

After eye contact:

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

After ingestion:

Rinse mouth with water and drink plenty of water in small sips. Do not force to vomit.
In case of persistent symptoms seek medical help.

Most important symptoms and effects, both acute and delayed:

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

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

5. Firefighting measures

Suitable extinguishing media:

Water spray, alcohol-resistant foam, carbon dioxide, dry chemical foam.

Unsuitable extinguishing media:

Water jet.

Special hazards arising from the substance or mixture:

With carbonization and incomplete combustion toxic gases develop, predominantly carbon dioxide and carbon monoxide. The development of further fission and oxidation products is dependent on the conditions of burning. Traces of other toxic substances may develop under certain conditions of burning. The release of nitrogen oxides and other organic decomposition products is possible. Avoid generating dust. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Special protective equipment and precautions for fire-fighters:

If exposed to fumes and carbonization gases during fire-fighting measures, rescue operations and cleanup wear a self-contained breathing apparatus.

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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Avoid dust formation. Take precautionary measures against static discharges. Keep away from sources of ignition.

No smoking.

Avoid contact with skin and eyes. Use personal protective clothing.

Environmental precautions:

Let not enter surface water and sewage water system.

Methods and material for containment and cleaning up:

Mechanical cleaning up.

Avoid formation and dispersal of dust in the air. Dust might form explosive mixtures with air.

Dust deposits must be removed by humid or wet cleaning or with a vacuum cleaner approved for combustible dust collection. Dry sweeping or blowing-off of dust deposits with compressed air is not allowed. Use only nonsparking tools.

7. Handling and storage

Precautions for safe handling:

Avoid dust generation. Minimize the escape of dust from process equipment and ventilation systems. Take precautionary measures against static charges, keep away from all ignition sources including heat, sparks and flame. Use only appropriately classified electrical equipment and powered industrial trucks.

Minimize dust accumulation. Utilize surfaces that minimize dust accumulation and facilitate cleaning. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.

Provide adequate precautions, such as electrical grounding and bonding, or inert atmosphere. Continuity checks to prove effectiveness of the grounding are necessary.

General industrial hygiene regulations are to be observed.

Wash hands before breaks and at the end of workday.

Food and tobacco should not be kept in the workplace.

Do not eat, drink or smoke in the workplace.

Conditions for safe storage, including any incompatibilities:

No special measures necessary.

The appropriate company regulations for fire prevention are to be followed.

Keep cool and dry in a firmly closed container.

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8. Exposure controls/personal protection

Control parameters:

substance	EC No	CAS No	exposure limit value	biological limit value	comment	source	country (type)
Particulates not otherwise regulated			15 mg/m ³		TWA (Total dust)	OSHA Z1	USA
Particulates not otherwise regulated			5 mg/m ³		TWA (Respirable dust)	OSHA Z1	USA
Particulates not otherwise regulated			10 mg/m ³		TWA (Total dust)	ACGIH	USA
Particulates not otherwise regulated			3 mg/m ³		TWA (Respirable dust)	ACGIH	USA

Exposure controls/Engineering measures:

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is no leakage from the equipment).

The working area should be well ventilated.

Respiratory protection:

Do not inhale vapours from hot product.

Wear protective breathing apparatus in case of insufficient ventilation. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Wear dust mask in the presence of dust.

Observe OSHA regulations for respirator use.

Eye/face protection:

Safety glasses with side-shields

Hand protection/skin protection:

Protective heat-insulating gloves are to be used during thermal processing.

Skin protection should be used (barrier cream containing tanning agent).

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9. Physical and chemical properties

Appearance:

solid (powder)

Melting point/Melting range:

None

Relative density:> 1 g/cm³**Flash point:**

N/A (solid)

Flammability (solid, gas):

not flammable

Vapour pressure:

N/A (solid)

Solubility(ies):

insoluble (water, 20 °C)

Auto-ignition temperature:

620 °C

Viscosity:

N/A (solid)

Odour/odour threshold:

odourless

Initial boiling point and Boiling range:

N/A (solid)

pH (20 °C):

N/A (solid)

Evaporation rate:

N/A

Upper/lower flammability or explosive limits:60 g/m³ (< 60 µm; lower explosion limit)**Vapour density:**

N/A

Partition coefficient: n-octanol/water:

no data available

Decomposition temperature:

> 500 °C

Explosive properties:

Product dust might form explosive mixtures with air.

10. Stability and reactivity

Reactivity:

No hazardous reactions known when stored and handled according to instructions and used for its intended purpose.

Chemical stability:

Product is stable. No hazardous reactions known when stored and handled according to instructions and used for its intended purpose.

Possibility of hazardous reactions:

No hazardous reactions known when stored and handled according to instructions.

Conditions to avoid:

Do not heat to a temperature above the decomposition temperature.
Keep product away from heat and sources of ignition.
Take precautionary measures against static discharges.

Incompatible materials:

Oxidizing agents, alkalis

Hazardous decomposition products:

By strong overheating of the material carbon oxides and nitrogen oxides can be generated.

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11. Toxicological information

Acute toxicity:

With proper use and in accordance with regulations there are no known dangers to health.

Chronic toxicity:

When used and handled according to specifications, the product does not have any harmful effects.

Other information:

In our experience and according to the literature provided to us the product does not cause any noxious effects when used and handled according to regulations.

12. Ecological information

Toxicity:

Data about ecological effects are not available for this product.

Persistence and degradability:

No data available.

Bioaccumulation potential and mobility in soil:

Biodegradability is not probable due to the consistency as well as the insolubility in water of the product.

Other adverse effects:

No relevant information available.

Due to the consistency of the product a disperse distribution in the environment is not likely. Therefore, according to the present state of knowledge negative ecological effects are not expected.

13. Disposal considerations

Waste treatment methods:

Product residues can be disposed of in accordance with national, state and local regulations.

Packaging:

Packaging can be recycled or disposed of in accordance with national, state and local regulations.

14. Transport information

Not classified as dangerous good under transport regulations (USDOT, IMDG, IATA/ICAO).

15. Regulatory informaton

Chemical safety assessment:

A chemical safety assessment has not been carried out.

Federal regulations:

TSCA (Toxic Substances Control Act): All ingredients are on the inventory or exempt from listing.

EPCRA 311/312 (Hazard categories): Fire (Combustible Dust)

EPCRA (SARA Title III) Section 313 - Toxic Chemical List: None

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16. Other information

Further Information:

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling information.

Indication of changes:

Change in Chapter 1: supplier

Status as of 04/19.

Previous version V01, status as of 03/17.

Our information and statements reflect the current state of our knowledge and shall inform about our products and their applications. They do not assure or guarantee chemical resistance, quality of products and their merchantability in a legally binding way. Our products are not defined for use in medical or dental implants. Existing commercial patents have to be observed. The corresponding values and information are no minimum or maximum values, but guideline values. They do not represent guaranteed properly values and therefore they must not be used for specification purposes. The customer is solely responsible for the quality and suitability of products for the application and has to test usage and processing prior to use. It is the user's responsibility to ensure that existing legislation and regulation are followed.