

SAFETY DATA SHEET

According to Regulation (EC) No.1907/2006

KEXCELLED PAHT K7LM

| Product code: | Revision Number: | Revision date: | MSDS No.: |
|---------------|------------------|----------------|-----------|
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

| | |
|-------------------------------------|---|
| Product name: | kexcelled 3D printing filament |
| Product code: | PAHT K7LM |
| Product Use: | A filament to be used in 3D printing applications. |
| Supplier: | NorthBridge New Material Technology(Suzhou) Co.,Ltd |
| Address: | Building# B2, Chaoyang Industrial square, Caohu Industrial Park, Xiangcheng District, Suzhou. CN. |
| Responsible/issuing person: | wilson@northbridge3d.com |
| Emergency telephone numbers: | +86-(0512)-65801831 |

2. HAZARDS IDENTIFICATION

| | |
|--------------------------|--|
| Possible Hazards: | Danger of burns while handling the hot product. |
| Other hazards: | No specific dangers known, if the regulations/notes for storage and handling are considered. |

3. COMPOSITION/INFORMATION ON INGREDIENTS

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|-----------------------|--------------------------|
| Chemical name: | Polyamide |
| CAS Number: | 24937-16-4 |
| Weight: | >85% |
| Remarks: | No hazardous ingredients |

4. FIRST AID MEASURES

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| Inhalation: | After inhalation of decomposition products, remove the affected person to a source of fresh air and keep calm. |
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|----------------------|---|
| | Provide medical aid. |
| Skin contact: | Areas affected by molten material should be quickly placed under cold running water. Burns caused by molten material require hospital treatment. |
| Eye contact: | In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek immediate medical attention. |
| Ingestion: | Rinse mouth and then drink plenty of water. If difficulties occur: Seek medical attention. |

Most important symptoms and effects, both acute and delayed

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| Symptoms: | No significant reaction of the human body to the product known. |
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture:

Carbon dioxide, carbon monoxide and unbumed hydrocar-bons(smoke).

Nitrogen oxides(NOx)

Hydrogen cyanide(hydrocyanic acid)

Special protective equipment: Wear a self-contained breathing apparatus.

Further information: Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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6. ACCIDENTAL RELEASE MEASURES

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| Personal precautions: | Ensure adequate ventilation. Use personal protective equipment. Sources of ignition should be kept well clear. |
| Environmental precautions: | Discharge into the environment must be avoided. |
| Methods and material for containment and cleaning up: | Sweep/shovel up. Avoid raising dust. Ensure adequate ventilation. |
| Reference to other sections: | Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13. |

7. HANDLING AND STORAGE

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|---|---|
| Precautions for safe handling : | Provide for appropriate exhaust ventilation and dust collection at machinery . The material can accumulate static charge and can therefore cause electrical ignition. Wear personal protective equipment. |
| Protection against fire and explosion: | Avoid dust formation. Dust can form an explosive mixture with air. Provide exhaust ventilation. When the product is ground (chopped), dust explosion regulations should be noted. |

Conditions for safe storage, including any incompatibilities Further information on storage

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conditions: Protect against moisture. Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame.

Specific end use(s): For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters:

Given suitable ventilation, it can be assumed that the threshold limits will not be reached.

Respiratory protection:

Effective dust mask

In the case of vapor formation use respirator with an approved filter.

Hand protection:

Use additional heat protection gloves.

Eye protection:

Safety glasses with side-shields (frame goggles).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit.

General safety and hygiene measures:

Avoid contact of molten material with skin. Avoid inhalation of dusts/mists/vapors. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: filament

Color: natural,black

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| Odour: | faint specific odor |
| Odor threshold: | not determined |
| pH Value: | not soluble. |
| Melting temperature: | 225°C |
| Boiling point/Boiling range: | not determined. |
| Flash point: | not determined. |
| Flammability: | not data available |
| Lower explosion limit: | The product is not explosive at itself, but it may form explosive dust. |
| Upper explosion limit: | not data available. |
| Ignition temperature: | not determined. |
| Vapor pressure: | not determined. |
| Density: | not determined. |
| Relative vapor density: | not determined. |
| Solubility in water: | not determined. |
| Ignition temperature: | No data available. |
| Decomposition temperature: | No data available. |

10. STABILITY AND REACTIVITY

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| Reactivity: | No hazardous reactions if stored and handled as prescribed/indicated. |
| Chemical stability: | The product is stable if stored and handled as prescribed/indicated. |
| Conditions to avoid: | Avoid extreme heat. Avoid all sources of ignition: heat, |

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sparks, open flame.Avoid moisture.

Incompatibility: No data available.

Hazardous decomposition products:

Possible thermal decomposition products:

Carbon monoxide,carbon dioxide and unburned hydrocarbons(smoke).Nitrogen oxides(NOx),Ammonia.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: No data available.

Irritation: No irritation is expected under intended use and appropriate handling.

Respiratory/Skin sensitization: May cause irritation of respiratory tract.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure):

No data available.

Other relevant toxicity information: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. ECOLOGICAL INFORMATION

Toxicity: No data available.

Persistence and degradability: No data available.

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Bio accumulative potential: No data available.

Mobility in soil (and other compartments if available):

No data available.

Results of PBT and vPvB assessment:

The product contains no components considered to be either persistent ,bio accumulative and toxic(PBT),or very persistent and very biaccumulative(vPvB)at levels of % or higher.

Additional information: Should not be released into the environment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods: Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging: Uncontaminated packaging can be recycled.

14. TRANSPORT INFORMATION

UN number: Not classified as a dangerous good.

UN proper shipping name: Not classified as a dangerous good.

Transport hazard class(es): Not classified as a dangerous good.

Packing group: Not classified as a dangerous good.

Environmental hazards: Not classified as a dangerous good.

15. REGULATORY INFORMATION

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

If other regulatory information applies that is not already

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provided elsewhere in this safety data sheet, then it is described in this subsection.

Chemical Safety Assessment:

Chemical Safety Assessment not required Product is not classified as hazardous.

16. OTHER INFORMATION

The information in this Material Safety Data Sheet (MSDS) is based on current knowledge and experience. No liability can be assumed for the accuracy and completeness of this information.