

Diamond and Cubic Boron Nitride Grinding Tools with Vitrified Bonds

1. Identification of the Substance / Preparation and Company / Undertaking

Product name: Diamond and CBN Grinding Tools with Vitrified Bonds

Supplier: Günter Effgen GmbH
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Important Notice:

Abrasives with diamond or CBN are inert products which do not create any risk when handled or stored. When used on grinding machines they require specific measures to protect the operators. During the grinding operation 90 % or more of the particulates of the dust come from the material being ground and, for wet grinding, from aerosols generated by the grinding fluid. Specific attention must therefore be given to the nature of the part and of the fluid and the appropriate protection devices must be installed.

2. Hazards Identification

Diamond and boron nitride grinding tools are not dangerous products as defined in EC-Directive No. 88/379 and REACH-Directive No. 1907/2006.

3. Composition / Information on Ingredients

Abrasive: Diamond
 CBN
 Others:

Bond: Vitrified
 Metal
 Resin: Phenol
 Polyimid
 Epoxide
 Others:
 Electroplated

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- Fillers: Halogen Compounds
 Carbides
 Metals
 Oxides
 Sulphur Compounds
 Nitrides
- Core Material: Ceramics
 Metal
 Carbon Fiber
- Others: None

4. First-Aid Measures

Only for application on grinding machines.

The following recommendations are basic rules during a grinding operation, they must be followed in conjunction with the information appearing in the Safety Data Sheets of the material ground and of the grinding fluid when used.

- Dust inhalation: Remove from exposure, seek medical advice if symptoms persist.
- Eye contact: Remove from exposure and flush with clean water. If symptoms persist seek medical advice.
- Skin contact: No hazardous effect known.
- Ingestion: No hazardous effect known.

5. Fire-Fighting Measures

None specific. Water, powder, foam, sand, CO₂ ... can be used if compatible with operating conditions.

6. Accidental Release Measures

Not applicable.

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7. Handling and Storage

Follow recommendations for machines and national regulations.
Store diamond and CBN abrasives in moderate constant temperature and humidity conditions.
For detailed recommendations refer to the FEPA Safety Leaflet for diamond and CBN abrasives.

8. Exposure Control and Personal Protection

Not applicable when diamond or CBN grinding tools are handled or stored.

During the grinding operation with diamond or CBN abrasives particles of dust come from the material being ground. The general value for fine dust is max. 1,25 mg/m³.

When using diamond or CBN abrasives, refer to grinding machines instructions and to the national rules. Refer also to the FEPA Safety Leaflet for diamond and CBN abrasives.

The following personal protective equipment should be used dependent on the operation and the material being ground.

Eye protection: Machine guarding and safety goggles or face shield.

Dust protection: Use of dust mask.

Hand protection: Use of barrier cream and protective gloves.

Ear protection: Use of ear defenders or equivalent.

Skin protection: Use of suitable protective clothing.

Hygiene Measures: No specific requirements.

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9. Physical and Chemical Properties

Physical state:	Solid
Colour:	Variable
Odour:	Not applicable (may give off non specific odour in use)
pH:	Not applicable
Change of physical state:	Not applicable
Density:	Not applicable
Powder density:	Not applicable
Vapour pressure:	Not applicable
Flash point:	Not applicable
Explosive properties:	Not applicable
Viscosity:	Not applicable
Solubility in water:	Not defined

10. Stability and Reactivity

Diamond and CBN grinding tools are stable and non reactive when handled or stored.

Conditions to avoid: Extreme heat, cold, direct sunbeam and humidity.

Material to avoid: Strong acids, strong bases and strong oxidizing agents may modify the mechanical characteristics of the products and create safety hazards when used on machines.

Hazardous decomposition products: If diamond or CBN abrasives are used in accordance with instructions no hazardous decomposition products are created.

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11. Toxicological Information

Not applicable when handled or stored.

According to the experience gathered for many years, diamond and CBN abrasives, when properly used, have no adverse effect on health, refer to the preliminary note about dust and aerosols of grinding fluid.

12. Ecological Information

Mobility: Not applicable
Persistence and degradability: Not biodegradable
Bioaccumulative potential: Not applicable
Ecotoxicity: Not applicable

13. Disposal Considerations

After use, diamond or CBN grinding tools may be contaminated with hazardous materials (particles or cooling agents) and should be disposed of in accordance with national regulations.

14. Transport Information

Diamond or CBN abrasives are not dangerous products.

15. Regulatory Information

EC-Regulations: None. No specific marking required under the EC-Directive No. 88/379 and REACH-Directive No. 1907/2006.
National or Local Regulations: Refer to relevant texts.

Warning! The above indications are based on existing practice and do not constitute a guarantee. The laws and regulations must be strictly followed by the users who remain responsible for the use of diamond and CBN grinding tools.