

**MATERIAL SAFETY DATA SHEET FOR GRINDING WHEELS AND BONDED ABRASIVES**  
- Format by FEPA as per EC Directive 91/155/CEE and ISO-Standard 11014 -

COMPANY: **ABRA BETA S.r.l.**

ADDRESS: **Via delle Sorti 10 - 25050 PIAN CAMUNO (BS) ITALY**

AUTHORIZED PERSON: **VITTORIO PIALI** Position: **PRODUCTION MANAGER**

PHONE: **0364 590792**

FAX: **0364 590298**

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**IMPORTANT NOTICE:**

The bonded abrasives 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 a 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 equipment to extract these generated materials must be installed.

**1. PRODUCT IDENTIFICATION**

**REINFORCED CUTTING AND GRINDING WHEELS RESINOID BONDED**

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

- 2.1 Abrasive:
- Synthetic Aluminium oxide
  - Synthetic Silicon Carbide
  - Zirconium Oxide + Aluminium Oxide
  - Others: \_\_\_\_\_

- 2.2 Bond:
- VITRIFIED
  - ORGANIC:
    - Polymerised synthetic resin
    - Rubber
    - Other organic: \_\_\_\_\_
  - OTHERS: \_\_\_\_\_

- 2.3 Bond fillers:
- Halogens compounds
  - Carbonates
  - Oxides
  - Sulfur compounds
  - Others: \_\_\_\_\_

- 2.4 Reinforcement:
- Glass cloths
  - Others: \_\_\_\_\_

2.5 Others: \_\_\_\_\_

**3. HAZARDS IDENTIFICATION**

NOT APPLICABLE: Bonded abrasives are not dangerous products as defined in EC Directive N° 88 / 379

#### 4. FIRST AID MEASURES

NOT APPLICABLE WHEN BONDED ABRASIVES PRODUCTS NOT IN USE ON MACHINES.

Following recommendations are basic rules during a grinding operation, they must be completed by 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 service if symptoms persist.
- Eye: Remove from exposure and flush with clean water. If symptoms persist seek medical advice.
- Skin: No hazardous effect known.
- Ingestion: No hazardous effect known.

#### 5. FIRE FIGHTING MEASURES

NONE specific. Water, powder, foam, sand, CO<sub>2</sub> ... can be used if compatible with operating conditions.

#### 6. ACCIDENTAL RELEASE MEASURES

NOT APPLICABLE.

#### 7. HANDLING AND STORAGE

The following recommendations should be followed to prevent damage to bonded abrasives which may create a risk of rupture when in use.

- Fragile products: handle and store with care.
- Store at moderate temperature and humidity. Excessive heat, humidity or thermal shocks may mechanically weaken the products and create safety hazards when used on machines.
- For detailed recommendations refer to the FEPA SAFETY CODE and to the Safety Leaflets «General» and «Portable».

#### 8. EXPOSURE CONTROL / PERSONAL PROTECTION

NOT APPLICABLE WHEN BONDED ABRASIVES ARE HANDLED OR STORED

When using abrasive products, refer to grinding machines instructions and to the rules to prevent accidents in the work place.

For safe use of bonded abrasives refer to the FEPA SAFETY CODE and LEAFLETS and national regulations.

8.1 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 or protective gloves.
- Ears protection: use of ear muffs or equivalent.
- Skin protection: use of suitable protective clothing.

8.2 Hygiene measures:

No specific requirements.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Physical state: Solid
- 9.2 Colour: Variable
- 9.3 Odour: Not applicable (May give off non specific odour in use)
- 9.4 pH: Not applicable
- 9.6 Change of physical state: Not applicable
- 9.6 Density: Depending upon product: 0.8 - 3.5 g/cm<sup>3</sup>
- Bulk density: Not applicable
- 9.7 Vapour pressure: Not applicable
- 9.8 Flash point: Not applicable
- 9.9 Explosion properties: Not applicable
- 9.10 Viscosity: Not applicable
- 9.11 Solubility in water: Not defined

## 10. STABILITY AND REACTIVITY

Bonded abrasives are stable and non reactive when handled or stored.

10.1 Conditions to avoid: excessive heat or humidity.

10.2 Materials to avoid:

Strong acids, strong bases & strong oxidising agents may modify the mechanical characteristics of the products and create safety hazards when used on machines.

10.3 Hazardous decomposition products: If bonded abrasives are used in accordance with instructions, no hazardous decomposition products are created.

10.4 Other indications:

NONE.

## 11. TOXICOLOGICAL INFORMATION

NOT APPLICABLE WHEN HANDLED OR STORED.

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

## 12. ECOLOGICAL INFORMATION

### 12.1 Mobility:

When the bonded abrasives are used, the grinding debris are easily retained within fixed machines or with appropriate screens for portable grinding operations.

### 12.2 Persistence and degradability: Not bio-degradable.

### 12.3 Bioaccumulative potential: Not applicable.

### 12.4 Ecotoxicity: Not applicable.

## 13. DISPOSAL CONSIDERATIONS

After use bonded abrasives may be contaminated with hazardous materials (particles of material ground or cooling agents) and should be disposed of in accordance with national and local regulations.

## 14. TRANSPORT

The bonded abrasives are not dangerous products and no specific regulations for any type of transportation are required. Protect from rain and excessive temperature and humidity.

No special precautions necessary other than to insure that no damage to the product occurs.

## 15. REGULATORY INFORMATION

EC Regulations: NONE, no specific marking required under EC directive N° 98/379.

National or Local Regulations: Refer to relevant texts.

## 16. OTHER INFORMATION

### Warning!

The above indications are based on the 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 the bonded abrasives.