



**BIGGI ABRASIVI S.N.C.
di Biggi Vincenzo & C.**
Via Sempreverdi, 15/a-b-c-d
42020 Rivalta (RE) - ITALIA

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SAFETY DATA SHEET

1) IDENTIFICATION OF THE PRODUCT AND MANUFACTURER:

- 1.1 Product (commercial name): **SYNTHETIC SILICON CARBIDE GRINDING WHEELS – SINT**
- 1.2 Use: Grinding wheel for smoothing-polishing non-ferrous materials (marble, stone, granite, ceramic, glass)
- 1.3 Manufacturer:
HQ, Warehouse and Offices: **BIGGI ABRASIVI S.N.C. di Biggi Vincenzo & C.**
Via Sempreverdi, 15/A-B-C-D
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2) COMPOSITION/INFORMATION ON COMPONENT PARTS:

2.1 The grinding and/or segmental wheels can contain the following raw materials in varying concentrations:

2.1.1 Initial phase - contents:

Name	Chemical formula	CAS	E.I.N.E.C.S.	Concentration
Aluminium oxide	Al ₂ O ₃	1344-28-1	2156916	
Calcium Carbonate	CaCO ₃	1317-65-3		
Silicon carbide	SiC	409-21-2	206-991-8	
Catalysts - Peroxide Benzoyl	(C ₆ H ₅ CO) ₂ O ₂	94-36-0	202-327-6	
Styrene and Polyester Resins	C ₈ H ₈	100-42-5	202-851-5	30-40 %

2.1.2 Intermediate phase – mixing:

Name	Chemical formula	CAS	E.I.N.E.C.S.	Concentration
Aluminium oxide	Al ₂ O ₃	1344-28-1	2156916	
Calcium Carbonate	CaCO ₃	1317-65-3		
Silicon carbide	SiC	409-21-2	206-991-8	
Catalysts - Peroxide Benzoyl	(C ₆ H ₅ CO) ₂ O ₂	94-36-0	202-327-6	
Styrene and Polyester Resins	C ₈ H ₈	100-42-5	202-851-5	16-17 %

2.1.3 Final phase – **FINISHED PRODUCT** (polymerisation and stabilisation):

Name	Chemical Formula	CAS	E.I.N.E.C.S.	Concentration
Aluminium oxide	Al ₂ O ₃	1344-28-1	2156916	
Calcium Carbonate	CaCO ₃	1317-65-3		
Silicon carbide	SiC	409-21-2	206-991-8	
Catalysts - Peroxide Benzoyl	(C ₆ H ₅ CO) ₂ O ₂	94-36-0	202-327-6	
Styrene and Polyester Resins	C ₈ H ₈	100-42-5	202-851-5	0.04 %*

* Since the products are made up with the above mentioned components but totally polymerised, hence NOT HARMFUL, NOT FLAMMABLE and NOT DETONATING, we assigned a Chemical Analysis Laboratory (Centro Chimico sas – 41049 Sassuolo MO) to analyse the above mentioned product in order to establish how much residual Styrene is left. The result shows a concentration of 373,82 mg/Kg that is 0.04% in percentage in relation to the weight of the grinding or segmental wheel.

- 2.2 Styrene R indications:
Xn Harmful
R20 Harmful if inhaled
R36/38 Irritant for eyes and skin
Quantity 0.04% CAS 100-42-5 EINECS 202-851-5

3) INDICATION OF HAZARDS:

If the product is used following the correct working procedures (smoothing and polishing stone materials using only plenty of clean water), then on the basis of our knowledge as it stands today and according to current standards, it is classified NOT DANGEROUS. The composition of the product as indicated, mix together at the end of the working cycle to form a solid product; the resins are totally polymerised and stable.

4) FIRST AID MEASURES:

No particular precautions are necessary when using this product.
The following general rules do, however, apply:

- **Inhalation:** not applicable; should the product crumble accidentally make sure there is plenty of fresh air
- **Contact with the skin:** rinse with clean water and soap
- **Contact with the eyes:** not applicable; should the product crumble accidentally rinse with plenty of clean water
- **Swallowing:** not applicable; if it crumbles, consult a doctor

5) FIREFIGHTING MEASURES:

The product is not flammable. If there is a fire inside the warehouse all the normal firefighting methods may be used (CO₂, powder, foam, water, etc.). Avoid breathing the combustion gases by wearing a respiratory aid.

6) MEASURES TO BE TAKEN IN THE EVENT OF AN ACCIDENTAL LEAK

If the material leaks from its packaging there is absolutely no danger for people or the environment. If the product crumbles, vacuum up the crumbs, avoiding they become airborne.

7) HANDLING AND STORAGE:

- 7.1 **HANDLING:** The grinding or segmental wheel must be used only with automatic or manual machines fitted with guards and lubricated with water so that, during use, it is cooled and lubricated with running water. The working premises should be adequately ventilated.
- 7.2 **STORAGE:** The number of grinding or segmental wheels packed in a box is such to ensure a weight that is relatively easy to handle, ranging from 7 to 44 Kg (**see packing list in the price lists and web site www.biggiabrasivi.com under “useful information”**). There are no great problems with handling. All the usual handling methods may be used. Keep the product in a dry place, protect from intense heat and cold and from direct sunlight.
- 7.3 **PARTICULAR USES:** smoothing and polishing stone materials with machines using water.

8) CONTROLLING EXPOSURE/INDIVIDUAL PROTECTION:

- 8.1 While using the product it is possible that vapours or mist form containing low concentrations of powder that are well below the danger limits in the case of normal aeration conditions, especially if used with abundant water. Mostly the powder contains the material being smoothed and polished and only a very small percentage of the abrasive material. To ensure greater safety, if ventilation is insufficient, it is preferable to check the concentration in the room and, if necessary, take the necessary protective measures according to the professional exposure standards.
- 8.2 TLV-TWA 10 mg/m³ total powder and 5 mg/m³ breathable fraction
General standards regarding hygiene at the workplace: it is forbidden to eat, drink and smoke on the working premises, wash your hands when you have finished working.
- 8.2.1.1 Respiratory protection: it is sufficient to ventilate the premises where the work is being done. Wear suitable masks if there is a high concentration of powder.
- 8.2.1.2 Hand protection: not normally necessary, waterproof gloves for those with sensitive skin.
- 8.2.1.3 Eye protection: not normally necessary, if there is the danger of squirts of working water then it is advisable to wear protective glasses/goggles.
- Consult a doctor if there is irritation to the eyes, skin or respiratory tract or if swallowed.

9) PHYSICAL AND CHEMICAL PROPERTIES:

- 9.1 The product comes in different sizes, shapes and colours at the SOLID state depending on the machine on which it is to be used. It is not flammable. It does not dissolve much in water.
- 9.2 Odour: aromatic
Ph: 7.59
Boiling point: unknown
Flash point: unknown
Explosive properties: none
Burning properties: none
Relative density: P (weight in grams) : V (cubic centimetre volume)

10) STABILITY AND REACTIVITY:

The product is stable under normal working conditions.

- 10.1 Conditions to avoid: none known
- 10.2 Materials to avoid: none known
- 10.3 Hazardous decomposition products: none known

11) TOXICOLOGICAL INFORMATION:

Depending on the concentration, some of the product's components have a very low toxicity level. Only long periods of exposure at high concentrations of the powders contained in the mists and vapours during the working process may cause problems to the respiratory tract, as would any annoying powder or dust.

The concentration of styrene is 0.04% inside the finished product; it is polymerised and not volatile.

12) ECOLOGICAL INFORMATION:

The product is not biodegradable. It has a very low toxicity level for the water environment. Use according to good working sense and always dispose of correctly.

Since water is the vehicle, we recommend decanting the residual waste water in specific tanks, kept free of the non-liquid residual by cleaning periodically (at least once a month) to ensure a minimum accumulation of styrene.

13) CONSIDERATIONS ON DISPOSAL:

The water used for working contains suspended particles. It must not be drained directly into the sewer, waterways or groundwater but filtered and clarified.

The unused residues of segmental wheels and residual working sludge, considering only the waste produced by the wear of the wheel and not of the material machined, can be disposed of as NOT HAZARDOUS SPECIAL waste, complying with the standard law provisions. The ordinary cardboard packaging materials must be sent for recycling.

14) INFORMATION ABOUT TRANSPORT:

No particular precautions need to be taken when transporting the product.

15) INFORMATION ABOUT RULES AND REGULATIONS:

No special labels are needed on the packaging seeing as it is not a hazardous substance.

16) OTHER INFORMATION:

R20	Harmful if inhaled
R36-38	Irritant for eyes and skin
Xn	Harmful

The information in this safety data sheet is given in good faith and based on the current state of our knowledge and experience. No implicit or explicit guarantee is supplied on the information given herein.