

MATERIAL SAFETY DATA SHEET

INTRODUCTION.

This Material Safety Data Sheet contains information relevant to all types of vitrified abrasive products. Reference must be made to the relevant product code when carrying out assessments.

SECTION 1 PRODUCT IDENTIFICATION AND MANUFACTURE

MANUFACTURER'S / SUPPLIERS NAME.

NAME AND ADDRESS

Saint-Gobain Abrasives Limited
Doxey Road
Stafford ST16 1EA

TEL NO. (01785) 222000
FACSIMILE (01785) 213487

CHEMICAL NAME AND SYNONYMS

Vitrified Abrasive Products.
Signified by the letter 'V' in the product mark.
A typical mark is WA463 H5V LGAA

TRADE NAMES AND SYNONYMS

Vitrified Grinding Wheels, Cups, Dishes, Rings, Cones, Rollers, Segments, Blocks, Hones, Mounted Points & Mounted Wheels.

SECTION 2 COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME

Silicon Carbide
Aluminium Oxide
Fused Silicates.

CONSTITUENT	CAS. No.	RANGE BY % MASS	EH40 DESIGNATION mg m ⁻³ 8hr TWA		EH40 STANDARD
			Total Inhalable	Respirable	
Glass Oxide	-	1-50	10	4	OES
Silicon Carbide	409-21-2	30 -50	10	4	OES
Aluminium Oxide	1344-28-1	10-95	10	4	OES
*Silica Crystalline	-	0-0.2	-	0.3	MEL

IMPREGNATES

Some vitrified products may contain one of the following materials as an impregnate within the structure.

Wax	8002-74-2	1-20	2(as fume)	-	OES
Sulphur	7704-34-9	1-40	10	4	OES
Rosin	8050-09-7	1-20	10	4	OES

BUSHING MATERIAL

As well as plain bore grinding wheels, bushed products are available and may contain one or more of the following materials.

CONSTITUENT	Cas No.	RANGE BY % MASS	EH40 DESIGNATION mg m ⁻³ 8hr TWA Total Inhalable Respirable	Respirable	EH40 STANDARD
Polystyrene Plastic	713-020-005	0-5	-	-	-
Vitrabond consisting of: Sulphur	7704-34-9	0-5	10	4	OES
Coke	65996-77-2	0-5	10	4	OES
Mastic bore lining consisting of: Calcium Carbonate	1317-65-3		10	4	OES
Talc (Magnesium Silicate)	14807-96-6		10	4	OES
Adhesive	67-64-1		10	4	OES
Lithopone	1309-37-1		10	4	OES
Graphite	7440-44-0		10	5	OES
Glass Fibres	14808-60-7 1344-28-1 13463-67-7 1309-48-4 1303-86-2 1313-50-3 1305-78-8 12136-47-7	53 – 60 11 – 15.5 0 – 3 10 – 12.5 0 – 9 <1 10 – 12.5 <1	10	4	OES

These materials are not in the grinding zone and consequently do not present a hazard in normal use.

SECTION 3 SUBSTANCE HAZARD IDENTIFICATION

Vitrified grinding wheels are not considered a hazardous product under CHIP regulations. In normal use users are advised to maintain particulate exposure below the Occupational Exposure Limit for nuisance dusts as defined in the latest EH40 publication.

The some hazards associated with the use of impregnated wheels are:-

Sulphur impregnation; heat build up during dry grinding may produce low level sulphur dioxide fumes.

Wax impregnation; heat build up may produce low level wax fumes.

SECTION 4 FIRST AID MEASURES

Due to the extensive use of coolant during most grinding applications the level of risk of exposure to inhalation is minimised. Nuisance dust will be generated when dry grinding therefore LEV control should be applied if levels need controlling below the OES for nuisance dusts.

INHALATION	<p>If a major exposure occurs, exposed personnel should be removed to fresh air until the level of air borne particulate subsides. Medical attention should be sought if breathing difficulties are experienced.</p> <p>The crystalline silica content is very low and is expected to be locked in the glass bond excessive exposure is unlikely.</p>
SKIN CONTACT	Wash exposed skin with water. Mechanical abrasion may occur on exposed skin increasing the potential of bacteria or other substance attack. If irritation occurs seek medical attention.
EYE CONTACT	Due to the abrasive nature of particulate, irritation may occur. Eyes should be flushed copiously and medical attention sought if symptoms persist.

SECTION 5 FIRE FIGHTING MEASURES

Abrasive grain is none combustible. Impregnated wheels may evolve normal combustion products and or Sulphur dioxide.

SECTION 6 ACCIDENTAL RELEASE MEASURES	
PERSONAL PROTECTION	<p>If conditions are dusty a dust mask should be worn.</p> <p>If there is a potential for eye contact eye protection is recommended.</p>
ENVIRONMENTAL PRECAUTIONS	Waste particulate must be bagged and sealed then disposed of as general waste.
METHODS FOR CLEARING UP	Spillage's should be cleaned up by wet sweeping or vacuum.

SECTION 7 HANDLING AND STORAGE	
HANDLING PRECAUTIONS	<p>Use of the grinding wheels must be in compliance with the 'Safety in the Use of Abrasive Wheels' HS(G) 17 available from HSE books.</p> <p>Also refer to F.E.P.A Safety Code for the Use, Care and Protection of Abrasive Wheels.</p> <p>The user should ensure correct product selection according to operating conditions.</p>
STORAGE INCLUDING ANY SPECIAL REQUIREMENTS	<p>Vitrified wheels should be protected from acid oil and frost and excessive temperature variation in storage.</p> <p>Machine coolant will cause the wheel to be out of balance if allowed to gather in one half of the wheel. Coolant should be drained off before storage.</p> <p>Reference to the above documents will identify the relevant storage requirements for a given product type and providing the product is stored under carefully controlled conditions in accordance with the information in this section and the above guidance the shelf life is indefinite.</p>

SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION	
ENGINEERING CONTROLS /VENTILATION	LEV must be provided if the OES standard as stated in the latest edition of EH40 for nuisance particulate is exceeded.
RESPIRATORY PROTECTION	Dust masks may be worn for low level short term exposure.
EYE PROTECTION	Impact resistant eye protection must be worn when using grinding wheels.
HAND/SKIN PROTECTION	If regular exposure to abrasive particulate occurs gloves and overalls are recommended.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES	
BOILING POINT °C	-
FLASH POINT °C	-
SOLUBILITY IN WATER	Not miscible
VAPOUR PRESSURE	N/A
IGNITION TEMPERATURE °C	-

SECTION 10 STABILITY AND REACTIVITY PROPERTIES	
STABILITY	Very stable
CONDITIONS TO AVOID	Excessive heat during use may lead to thermal shock causing the wheel to burst. No alterations must be carried out on the product. Consult your Saint-Gobain Abrasives technical representative for advice.
COMBUSTION PRODUCTS	Wheels containing impregnates may evolve toxic gases in a fire

SECTION 11 TOXICOLOGICAL INFORMATION	
ACUTE TOXICITY:-	None known

SECTION 12 ECOLOGICAL INFORMATION	
DEGRADABILITY	Will not degrade
ACUTE FISH TOXICITY	None known
WATER HAZARD CLASSIFICATION	N/A

SECTION 13 DISPOSAL CONSIDERATIONS	
DISPOSAL METHODS	General waste

SECTION 14 TRANSPORT INFORMATION

Special transportation precautions do not apply. However care should be taken to avoid mechanical damage during transportation.

SECTION 15 REGULATORY INFORMATION

PRODUCT LABEL DETAILS - PER CHIP

PRODUCT TRADE NAME	Vitrified (bonded) abrasive products
HAZARD SYMBOL	Not classified as hazardous
RISK PHRASE No's & WORDS	N/A
SAFETY PHRASE No's & WORDS	N/A

Specific regulations governing the use of abrasive products has been extensively revoked. For guidance as to the general requirements reference should be made to the requirements under the European (6 pack) regulations and any revisions.

SECTION 16 OTHER INFORMATION

TRAINING ADVISE	In accordance with the requirements of the provision and use of work equipment regulations 1992, users of grinding wheels must be trained in the appropriate wheel mounting course, be certified and their name entered on a company register.
RECOMMENDED USES & RESTRICTIONS	<p>Use of the grinding wheels must be in compliance with the 'Safety in the Use of Abrasive Wheels HS(G) 17 available from HSE books.</p> <p>Also refer to F.E.P.A Safety Code for the Use, Care and Protection of Abrasive Wheels.</p> <p>The user should ensure correct product selection according to operating conditions.</p>