

| <b>MATERIAL SAFETY DATA SHEET</b>  |  |
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| - Format by FEPA as per EC Directive 91/155/CEE and ISO-Standard 11014 -   |  |
| <p><b>COMPANY: Master Abrasives Ltd.</b><br/> <b>ADDRESS:</b> Long March Ind. Est. Daventry NN11 4PG<br/> <b>PHONE:</b> 01327 703813</p> <p><b>AUTHORISED PERSON:</b> A B Collins<br/>           e-mail <a href="mailto:bcollins@master-abrasives.co.uk">bcollins@master-abrasives.co.uk</a></p> <p style="text-align: center;">Quality Manager</p> <p>Position: .....</p>   | <p><b>Issue Date:</b></p> <p style="text-align: center;">08/08/2016</p>  |
| <p><b>IMPORTANT NOTICE:</b><br/>           The abrasive products 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 equipment to extract these generated materials must be installed.</p> |  |
| <b>1.</b>  | <p><b>PRODUCT IDENTIFICATION</b></p> <p>Cratex Rubber Products</p>   |
| <b>2.</b>  | <p><b>COMPOSITION/INFORMATION OF INGREDIENTS</b></p> <p>Abrasives: <input type="checkbox"/> Aluminium oxide *<br/> <input checked="" type="checkbox"/> Silicon Carbide *<br/> <input type="checkbox"/> Zirconium Oxide + Aluminium Oxide<br/> <input type="checkbox"/> Others: Please state</p> <p>2.1 Bond: <input type="checkbox"/> VITRIFIED<br/> <input checked="" type="checkbox"/> ORGANIC</p> <div style="margin-left: 200px;"> <input type="checkbox"/> Polymerised synthetic resin<br/> <input checked="" type="checkbox"/> Rubber<br/> <input type="checkbox"/> Other organic         </div> <p><input type="checkbox"/> Others: Please state</p> <p>2.2 Bond fillers: <input type="checkbox"/> Halogens compounds<br/> <input type="checkbox"/> Carbonates<br/> <input checked="" type="checkbox"/> Oxides<br/> <input type="checkbox"/> Sulphur compounds<br/> <input type="checkbox"/> Others:</p> <p>2.3 Reinforcement: <input type="checkbox"/> Glass cloths *<br/> <input type="checkbox"/> Others: Please state</p> <p>2.4 Others: <input type="checkbox"/></p> <p style="text-align: center;">*Depending on product/abrasive</p> |
| <b>3.</b>  | <p><b>HAZARDS IDENTIFICATION</b></p> <p>No hazardous material is present in concentration greater than 1%. 0.1% for carcinogens.</p>   |
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| 4.   | <p><b>FIRST AID MEASURES</b></p> <p>APPLICABLE WHEN ABRASIVE PRODUCTS ARE IN USE ON MACHINES</p> <p>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.</p> <ul style="list-style-type: none"> <li>- Dust inhalation      Remove from exposure, seek medical service if symptoms persist:</li> <li>- Eye:                      Remove from exposure and flush with clean water. If symptoms persist seek medical advice.</li> <li>- Skin:                      No hazardous effect known.</li> <li>- Ingestion:              No hazardous effect known.</li> </ul> |
| 5.   | <p><b>FIRE FIGHTING MEASURES</b></p> <p>Water, Powder, Foam, Sand, CO<sub>2</sub>, etc can be used if compatible with operating conditions. Use full protective clothing and a positive pressure self contained breathing apparatus.</p>  |
| 6.   | <p><b>ACCIDENTAL RELEASE MEASURES</b></p> <p>NOT APPLICABLE</p>   |
| 7.   | <p><b>HANDLING AND STORAGE</b></p> <p>The following recommendations should be followed to prevent damage to abrasive products which may create a risk of rupture when in use.</p> <ul style="list-style-type: none"> <li>- Fragile products: handle and store with care.</li> <li>- Store at moderate temperature and humidity.</li> <li>- For detailed recommendations refer to the FEPA SAFETY CODE and safety leaflets</li> </ul>  |
| 8.   | <p><b>EXPOSURE CONTROL/PERSONAL PROTECTION</b></p> <p>NOT APPLICABLE WHEN ABRASIVES ARE HANDLED OR STORED.</p> <p>When using abrasive products, refer to grinding machines instructions and to the rules to prevent accidents in the work place.</p> <p>For safe use of abrasives refer to the FEPA SAFETY CODE safety leaflets and national regulations.</p>   |
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| <b>8.1</b>   | 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  |
| <b>9.</b>  | <b>PHYSICAL AND CHEMICAL PROPERTIES</b>  |   |
| 9.1  | Physical state:  | Solid   |
| 9.2  | Colour:  | Variable  |
| 9.3  | Odour:   | Not Applicable(may give slight rubber odour in use)   |
| 9.4  | pH:  | Not Applicable  |
| 9.5  | Change of physical state:  | Not Applicable  |
| 9.6  | Density:   | 35/48 gr/in   |
| 9.7  | Bulk Density:  | Not Applicable  |
| 9.8  | Vapour pressure:   | Not Applicable  |
| 9.9  | Flash point:   | Not Applicable  |
| 9.10   | Explosion properties:  | Not Applicable  |
| 9.11   | Viscosity:   | Not Applicable  |
| 9.12   | Solubility in water:   | Insoluble   |
| <b>10.</b>   | <b>STABILITY AND REACTIVITY</b>  |   |
|  | Abrasives are stable and non reactive when handled or stored.  |   |
| 10.1   | Conditions to avoid.   | Excessive heat or flame   |
| 10.2   | Materials to avoid:  | Strong acids, oil based lubricants. Strong oxidising agents may modify the mechanical characteristics of the product and create safety hazards when used on machines. |
| 10.3   | Hazardous decomposition products:  | Carbon Oxides   |
| 10.4   | Other indications:   | Not Applicable  |
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| <b>11.</b>   | <b>TOXICOLOGICAL INFORMATION</b>   |
|  | <p>NOT APPLICABLE WHEN HANDLED OR STORED.</p> <p>According to the experience gathered for many years, the abrasives when properly used have no adverse effect on health. Refer to the preliminary note about dust and aerosols of grinding fluids.</p>   |
| <b>12.</b>   | <b>ECOLOGICAL INFORMATION</b>  |
| 12.1   | Mobility: Not Applicable   |
| 12.2   | Persistence and degradability: Not Applicable  |
| 12.3   | Bioaccumulative potential: Not Applicable  |
| 12.4   | Ecotoxicity: Not Applicable  |
| <b>13</b>  | <b>DISPOSAL CONSIDERATIONS</b>   |
|  | <p>After use 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.</p>  |
| <b>14.</b>   | <b>TRANSPORT</b>   |
|  | <p>The rubber abrasives are not dangerous products and no specific regulations for any type of transportation are required. Protect from rain and excessive temperature and humidity.</p> <p>No special precautions necessary other than to insure that no damage to the product occurs.</p>                                     |
| <b>15.</b>   | <b>REGULATORY INFORMATION</b>  |
|  | <p>EC Regulations: NONE, no specific marking required under EC directive N° 88/379</p> <p>National or Local Regulations: Refer to relevant texts.</p>  |
| <b>16.</b>   | <b>INFORMATION</b>   |
|  | <p>The information contained in this Material Safety Data Sheet is furnished solely to comply with the requirements of the Health &amp; Safety At Work Act 1974. No liability can be accepted for any loss, damage or injury of any kind, which may result out of the use of this information by any person or organisation.</p> |
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