**SAFETY DATA SHEET (SDS)**

**SECTION 1: IDENTIFICATION**

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| 1.1. Product identifier: | Coated Abrasive Products: Resin Fibre Discs, Flap Discs, Semi-Flexible Discs, Flap  Bands, Flap Wheels, PSA Cloth-Backed Discs, Shop Rolls, 9" x 11" Sheets and Quick- Change Discs |
| 1.2. Recommended use: | Grinding and/or Finishing |
| 1.3. Restrictions on use: | Dangerous, improper use may cause serious injury. For safe operation and use please refer to ANSI B7.7-2003 (R2011) and OSHA Regulations. |
| 1.4. Supplier's details: | Marvel Abrasive Products, LLC  6230 South Oak Park Avenue  Chicago, IL 60638  Business: 800.621-0673  Facsimile: 800.701.0187 |

**SECTION 2: HAZARD(S) IDENTIFICATION**

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| 2.1. Hazard classification | Not classified as hazardous according to OSHA Hazard Communication Standards |
| 2.2. Label elements | Single word: Not applicable Symbols: Not applicable Pictograms: Not applicable |
| 2.3. Hazards not otherwise classified | None |

**SECTION 3 - COMPOSITION**

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| --- | --- | --- | --- |
| **Chemical Name** | **Formula** | **CAS#** | **MAX % WT. \*\*** |
| Aluminum Oxide (Non-Fibrous) | Al2O3 | 1344-28-1 | 25 - 50 |
| Silicon Carbide | SiC | 409-21-2 | 25 - 50 |
| Zirconium Oxide | ZrO2 | 1314-23-4 | 25 - 50 |
| Cured Phenol Formaldehyde Resin | N/A | 9003-35-4 | 5 - 10 |
| Epoxy Resin | N/A | 25068-38-6 | 5 - 20 |
| Calcium Carbonate, Natural | CaCO3 | 1317-655-3 | 0 - 10 |
| Cryolite | N/A | 15096-52-3 | 5 - 20 |
| Potassium Fluoborate | KBF4 | 14075-53-7 | 25 - 50 |
| Fibre Backing | N/A | None | 40 - 65 |
| Cloth Backing | N/A | Mixture | 10 - 30 |
| Paper Backing | N/A | Mixture | 5 - 10 |
| Fiberglass Backing | N/A | 65997-17-3 | 30 - 60 |
| Metal Attachments | N/A | Mixture | 0 - 5 |
| Nylon Attachments | N/A | Mixture | 0 - 5 |

\*\*The exact percentage (concentration) of the composition has been withheld as a trade secret.

**SECTION 4: FIRST AID MEASURES**

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| 4.1. Required  treatment: | Inhalation: Move to fresh air. If breathing is difficult, have qualified personnel administer  oxygen. Seek medical attention if irritation or other symptoms persist.  Skin contact: Wash skin with soap and water. If irritation or other symptoms develop, seek medical attention.  Eye contact: Remove contact lenses if present. Flush eyes thoroughly with large amounts of water, holding eyelids open. If irritation persists, seek medical attention.  Ingestion: Do not induce vomiting. Rinse mouth with water. Seek medical attention if large amount is swallowed or if you feel unwell. |
| 4.2. Symptoms and effects, both acute and delayed: | Dust may cause eye and respiratory irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Prolonged overexposure to respirable dust may increase the risk of lung cancer. Risk of cancer depends on duration and level of exposure. Exposure to dust generated from processing the base material or coatings may present additional health hazards. |
| 4.3. Indication of any immediate medical attention and special treatment required: | Not applicable |

**SECTION 5: FIRE-FIGHTING MEASURES**

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| 5.1. Extinguishing  techniques, including equipment: | Use any media that is suitable for extinguishing the fire, such as water, foam and/or powders.  Do not use water on fires involving metal dusts. Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus. |
| 5.2. Chemical hazards arising from the substance, mixture or fire: | These products are not flammable or combustible; however, consideration must be given to the potential fire/explosion hazards from the base material being processed. Many materials create flammable/explosive dusts or turnings when machined or ground. |

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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| 6.1. Emergency  procedures: | Environmental: Avoid contamination of water supplies and environmental releases. Report  spills as required by authorities. |
| 6.2. Protective equipment: | Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust. |
| 6.3. Methods of containment and clean-up: | Collect dry material, avoiding creating airborne dust. Place in a suitable container for disposal. |

**SECTION 7: HANDLING AND STORAGE**

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| 7.1. Precautions for  safe handling: | Inspect product prior mounting on tool for damage. Do not use at speeds greater than  product maximum rates per minute (rpm) as indicated. Use with adequate ventilation. Avoid breathing dust. Avoid eye and skin contact with grinding dust. Wear suitable eye protection, gloves and appropriate protective clothing. Wash thoroughly after handling. Consider potential exposure to components of the base materials or coatings being worked. Refer to OSHA substance specific standards for additional work practice requirements where applicable. |
| 7.2. Conditions for safe storage: | No special storage required. Suggested environments would fall in a temperature range of  60-80 F and 35-50% relative humidity. |

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1. Exposure controls:

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| **Chemical Name** | **OSHA PEL Respirable** | **OSHA PEL Total Dust** | **ACGIH TLV** |
| Aluminum Oxide (Non-Fibrous) | 5 mg/m³ | 15 mg/m³ | 10 mg/m³ |
| Silicon Carbide | 5 mg/m³ | 15mg/m³ | 3 mg/m³ |
| Zirconium Oxide | 5 mg/m³ | Not Established | 10 mg/m³ |
| Ceramic Aluminum Oxide (Non-Fibrous) | 5 mg/m³ | 15 mg/m³ | 10 mg/m³ |
| Cured Phenol Formaldehyde Polymer | Not Established | Not Established | Not Established |
| Epoxy Resin | Not Established | Not Established | Not Established |
| Calcium Carbonate, Natural | 5 mg/m³ | 15 mg/m³ | 10 mg/m³ |
| Cryolite | 2.5 mg/m³ | Not Established | 2.5 mg/m³ |
| Potassium Fluoborate | 15 mg/m³ | Not Established | 10 mg/m³ |
| Fibre Backing | Not Established | Not Established | Not Established |
| Cloth Backing | Not Established | Not Established | Not Established |
| Paper Backing | Not Established | Not Established | Not Established |
| Fiberglass Backing | 5 mg/m³ | 15 mg/m³ | 5 mg/m³ |
| Metal Attachments | Not Established | Not Established | Not Established |
| Plastic Attachments | Not Established | Not Established | Not Established |

8.2. Personal protection:

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| Ventilation: | Engineering controls recommended. See ANSI Z43.1. Refer to OSHA 29 CFR 1910.94. |
| Respiratory: | OSHA/NIOSH approved respirator. See OSHA 29 CFR 1910.134 |
| Eye protection: | Protective eyewear such as safety goggles, safety glasses or face shield is recommended. See OSHA 29 CF1910.133. |
| Protective gloves: | Leather gloves. |
| Hearing protection: | Hearing protection such as earplugs or approved earmuffs. Refer to OSHA 29 CFR  1910.95. |
| Body/Skin protection: | Leather apron, fire retardant jacket/shirt/lab coat to shield from heavy spark showers in operation. |
| Other protections and precautions: | Visually inspect all wheels before mounting for possible damage. Do not operate above maximum operating speed. Always use a guard were applicable. Refer to ANSI B7.7 for proper safety and usage protocols. |

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

9.1. Basic physical and chemical properties:

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| General physical form: | Solid abrasive products |
| Odor: | N/A |
| Flammability or Explosive Limits: | N/A |
| Vapor Pressure: | N/A |
| Odor Threshold: | N/A |
| Vapor Density: | N/A |
| pH: | N/A |
| Relative Density: | N/A |
| Melting Point/Freezing Point: | N/A |
| Solubility in water: | N/A |
| Boiling Point: | N/A |
| Flash Point: | N/A |
| Evaporation Rate: | N/A |
| Flammability (solid, gas): | Not classified |
| Auto-ignition Temperature: | N/A |
| Decomposition Temperature: | N/A |
| Viscosity: | N/A |

**SECTION 10: STABILITY AND REACTIVITY**

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| 10.1. Reactivity: | Not reactive under normal conditions of use and storage. |
| 10.2. Chemical stability: | Stable. |
| 10.3. Possibility of hazardous reactions: | Hazardous polymerization will not occur. |
| 10.4. Conditions to avoid: | None known. |
| 10.5. Incompatible materials: | None known. |
| 10.6. Hazardous decomposition products: | None known. |
| 10.7. Other: | Dust from grinding and cutting could contain potentially hazardous components of the base material being ground or coatings applied to the base material. |

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1.

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| **Chemical Name** | **Route of Exposure** | **Acute LD50 (Species)** |
| Aluminum Oxide (Non-Fibrous) | Oral | >5,000 mg/kg (rat) |
| Silicon Carbide | Oral | >2,000 mg/kg (rat) |
| Zirconium Oxide | Oral | >5,000 mg/kg (rat) |
| Ceramic Aluminum Oxide (Non-Fibrous) | Oral | >5,000 mg/kg (rat) |
| Cured Phenol Formaldehyde Polymer | N/A | No acute toxicity data available |

|  |  |  |
| --- | --- | --- |
| Epoxy Resin | Oral | >15,600 mg/kg (rat) |
| Calcium Carbonate, Natural | Oral | >5,000 mg/kg (rat) |
| Cryolite | Oral | >5,000 mg/kg (rat) |
| Potassium Fluoborate | Oral | >5,000 mg/kg (rat) |
| Fibre Backing | N/A | No acute toxicity data available |
| Cloth Backing | N/A | No acute toxicity data available |
| Paper Backing | N/A | No acute toxicity data available |
| Fiberglass | N/A | No acute toxicity data available |
| Metal Attachments | N/A | No acute toxicity data available |
| Plastic Attachments | N/A | No acute toxicity data available |

11.2. Toxicological effects, signs and symptoms of exposure:

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| --- | --- |
| Routes of  Exposure: | Inhalation, skin contact, eye contact and ingestion. |
| Related  Symptoms: | Breathing in dust may cause irritation to the nose, throat and upper respiratory tract. May cause abrasive skin irritation. May cause eye irritation and injury. Not toxic if ingested. Swallowing may cause gastrointestinal disturbances or obstructions. |
| Acute and  Chronic Effects: | Prolonged inhalation of respirable dust may cause adverse lung effects, including cancer. Smoking may aggravate chronic effects. Prolonged exposure to elevated noise levels during operations may affect hearing. In most cases, the greater hazard is the exposure to the dust/fumes from the material (paint/coatings) being cut and  ground. Most of dust is generated during grinding and cutting of the base material and the potential hazard from this exposure must be evaluated. |
| Carcinogenicity: | Unknown |
| Mutagenicity: | Unknown |
| Reproductive  Effects: | Unknown |

**SECTION 12: ECOLOGICAL INFORMATION\***

12.1. Data from Toxicity Tests: No adverse effects on aquatic organisms are expected.

**SECTION 13: DISPOSAL CONSIDERATIONS\***

13.1. Proper Disposal Practices: Disposal practices are in accordance with local, state and national regulations.

**SECTION 14: TRANSPORT INFORMATION\***

14.1. Proper Transport of

Hazard Material:

Not regulated as a hazardous material for transport.

**SECTION 15: REGULATORY INFORMATION\***

15.1. Safety, Health and

Environmental Regulations:

\*Non-Mandatory

No Data Available

**SECTION 16: OTHER INFORMATION**

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| 16.1. Date SDS Prepared: | April 30, 2015 (Initial SDS Declaration Form) |
| 16.2. Last Revision Completed: | April 30, 2015 |
| 16.3. Statement of Accuracy: | The above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. Marvel Abrasive Products, LLC. shall not be held liable for any damage resulting from handling or from contact with the above products. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process. |