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Product Information Sheet

| Item | Description | | |
|---|--|---|-------------------------------|
| 1. Identification | Product | : Copper Clad Laminate | |
| | Designation | : R－1 5 1 5 W | |
| | Company | : Panasonic Corporation, Automotive & Industrial Systems Company | |
| | Address | : 111, Azaishizuka, Koriyama, Fukushima 963-8556 Japan | |
| | Department | : Quality Assurance Koriyama Group Quality Center | |
| | Telephone number | : +81-24-944-2903 | |
| | FAX number | : +81-24-944-6086 | |
| 2. Hazards identification | GHS classification | : Not applicable to Classification Standard | |
| | Hazard | : Not applicable | |
| | Hazardous property | : Not applicable | |
| | Environmental impact | : Not applicable | |
| 3. Composition / information on ingredients | Classification (single product or composite) : Composite | | |
| | Ingredients and contained amount : | | |
| | Ingredient | Contained amount (wt%) | Allowable concentration (ppm) |
| | Cured Epoxy resin | 5 to 50 | Not applicable |
| | Inorganic filler | 5 to 40 | Not applicable |
| | Glass fiber | 10 to 70 | Not applicable |
| | Copper foil | 1 to 80 | Not applicable |
| | Total | 100 | — |
| 4. First aid measures | If inhaled | : When you inhaled fine powder generated during handling and processing, gargle with clean water and, as needed, seek medical advice. | |
| | In case of skin contact | : When your skin is in contact with fine powder generated during handling and processing, wash your skin with a soap and clean water and, as needed, seek medical advice. | |
| | In case of eye contact | : When your eyes are in contact with fine powder generated during handling and processing, wash your eyes with clean water immediately and, as needed, seek medical advice. | |
| | If swallowed | : When you swallowed fine powder generated during handling and processing, gargle with clean water and, as needed, seek medical advice. | |
| 5. Fire fighting measures | Fire extinguishing method | : Battle the fires from the windward side to avoid inhalation of toxic gas. Wear respiratory protection equipment depending on the situation. | |
| | Extinguishant | : Use extinguishants such as water, powder, foams, carbon dioxide although nothing specified. | |

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| 6. Accidental release measures | Precautions for human body | : Wear a protective mask, protective gloves and protective glasses as needed. |
| | Collection and purification method, etc. | : When materials such as powder and mills ends have spilled on the floors, etc., clean them quickly and quietly so that powder dust does not fly and treat them as general industrial wastes. |
| 7. Precautions for handling and storage | Handling | : Avoid inhalation of fly powder dust during processing, etc. · Wear protective gloves when handling end faces. · Failing to obey this instruction will lead to injuries on hands, etc. since end surfaces are sharp. |
| | Storage | : There is no safety problem such as reaction during storage. However, store this product indoor avoiding water at normal temperatures and humidity. |
| 8. Exposure controls and protection measures | Control concentration | : Not applicable |
| | Allowable concentration | |
| | Japan Society for Occupational Health | : Not applicable |
| | ACGIH | : Not applicable |
| | Equipment measures | : Provide a local ventilation device since powder dust generates during processing. |
| | Protective equipment | |
| | Respiratory protective device | : It is preferable to wear. |
| | Protective glasses | : It is preferable to wear. |
| | Protective glove | : It is preferable to wear. |
| | Protective cloth | : It is preferable to wear. |
| | | |
| 9. Physical and chemical properties | Appearance | : Solid sheet |
| | Melting point (°C) | : None |
| | Specific gravity (20°C) | : 2.00 to 2.20 (without copper foil) |
| 10. Stability and reactivity | Stability, reactivity | : Chemically stable in ordinary temperatures |
| 11. Toxicity information (including symptoms of humans and epidemiological information) | Skin corrosivity | : None (No finding is made.) |
| | Irritating nature (skin, eyes) | : None (No finding is made.) |
| | Sensitizing property | : None (No finding is made.) |
| | Acute toxicity (including 50% lethal amount, etc.) | : None (No finding is made.) |
| | Chronic toxicity | : None (No finding is made.) |
| | Carcinogenic | : None (No finding is made.) |
| | Mutagenesis (microorganism, chromosomal aberration) | : None (No finding is made.) |
| | Reproductive toxicity | : None (No finding is made.) |
| | Teratogenicity | : None (No finding is made.) |

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| 12. Environmental impact information | Resolvability : None (No finding is made.) Accumulation property : None (No finding is made.) Fish toxicity : None (No finding is made.) Others : None (No finding is made.) |
| 13. Disposal considerations | Outsource disposal of waste products to industrial waste disposers. Comply with national, prefectural and local laws and regulations when disposing waste products. |
| 14. Transportation considerations | There is no safety problem in transportation. However, avoid moisture absorption, exposing to water and rough handling during transportation. |
| 15. Regulatory information | <u>Industrial Safety and Health Act</u> Glass fiber : Guidelines for Labor Health for Glass Fibers and Rock Wool Copper : Substances specified in Article 57-2-1 (Substances to be notified) |
| 16. Other information | <p>Our multilayer material is not regarded as "chemical product" for which SDS document is needed to be provided to customers.</p> <p>Under this situation, this document is handed over to customers who require individually by describing general information focusing on keeping safety environment of operating people at customers.</p> <p>Customers have to take care of equipping ventilation machine for operators working at manufacturing process as also described in No.8 column.</p> <p>Please be advised that there is no risk of raw material's exposing on the surface of resin powder because the chemical structure is completely fused and polymerized. But please consider keeping safety environment in the case you do not satisfy working environment as described above or in the case materials were used other special purpose or processed by special method.</p> <p>The component content differs depending on the specification such as the thickness. Therefore, the component content specified herein covers the entire range.</p> <p>The document was prepared based on the materials and information obtained at the time of revision.</p> <p>From this point of view, please take care the content is not fully supported by latest information.</p> <p>Cited references ; Chemical Risk Information Platform (NITE) SDS (from source material suppliers) or other.</p> |