

MATERIAL SAFETY DATA SHEET

1.IDENTIFICATION OF THE PRODUCT AND COMPANY

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| 1.1.PRODUCT NAME | ENZYMATIC PREPARATION |
| 1.2.PRODUCT CODE | RESIL EZYCARE MF PLUS |
| 1.3.APPLICATION | |
| 1.4.MANUFACTURER | RESIL CHEMICALS PRIVATE LIMITED Unit 30 ,Bangalore Co-operative Industrial Estate Limited Old madras Road Bangalore - 560 016 TEL : 43486100,43486111 FAX: 28512054. |

2.COMPOSITION & INFORMATION ON INGREDIENTS

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| 2.1.Chemical Identity | An aqueous based emulsion of cellulase |
| 2.2 CAS No.of active ingredient | 9012-54-8 |

3. HAZARD IDENTIFICATION

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| 3.1. Hazardous nature | Non-hazardous, irritant |
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4.FIRST AID MEASURES

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| 4.1.Skin | Can be removed by water wash or water and soap. |
| 4.2.Eyes | Flush eyes with plenty of water, seek medical attention, if necessary. |
| 4.3.Inhalation | Remove from contaminated area to fresh air,seek medical attention if allergic response exists |
| 4.4.Ingestion | Give large quantity of water , seek medical advise in case of sickness. |

5.FIRE FIGHTING MEASURES

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| 5.1.Extinguishing media | Use any of the following extinguishing measures Viz .,water spray, alcohol resistant foam ,dry chemical or carbon dioxide. |
| 5.2.Unsuitable extinguishing media | None known |
| 5.3.Special exposure hazards | Inhalation of aerosol may result in sensitization.Avoid any contact with the substance. May cause allergic respiratory reaction. |
| 5.4.Special protective equipments | No special equipments are required, usual fire-fighting equipment can be used. Self contained breathing apparatus |

6.ACCIDENTAL RELEASE MEASURES

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| 6.1.Personal precautions | Wear personal protective suits |
| 6.2.Environmental precautions | Observe local byelaws. Do not allow to enter natural waters or soil . |
| 6.3.Clean up procedure | Mop, wipe or soak with cloth or absorbents. e.g. sand, kieselguhr, saw dust, etc and dispose according to regulations. Avoid formation of dust and aerosols.Take up spilled material by mechanical means preferable by a vaccum cleaner equipped with a high efficiency filter . |

7.HANDLING AND STORAGE

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| 7.1.Handling precautions | General ventilation is required. Avoid eye contact. Avoid formation of dust and aerosols. |
| 7.2.Storage | Store in any dry place with general ventilation, in closed containers. Segregate from acids, peroxides and all combustible organic or oxidizable materials. Avoid high temperatures or high humidity . |
| 7.3.Incompatible packaging materials. | Advised to use original containers only. |
| 7.4.Other information | Keep from freezing. Protect against physical damage .Empty container retains vapor and produce residue |

8.EXPOSURE CONTROLS AND PERSONAL PROTECTION

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| 8.1.Exposure controls | No assigned exposure limits known |
| 8.2.Personal protective equipment | |
| Respiratory protection | Regular protective masks with P3 filters are recommended |
| Hand protection | Protective gloves recommended |
| Eye protection | Goggles giving full protection required. |
| Hygiene measures | Observe standard industrial hygiene practices for handling of chemical substances. Avoid contact with skin, eyes. |

9.PHYSICAL AND CHEMICAL PROPERTIES

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| 9.1. APPEARANCE | |
| Form | Liquid |
| Colour | Yellow |
| Odour | Fermentation odour |
| 9.2.SAFETY DATA | |
| pH (undiluted) | 6.0 -7.0 |
| Boiling point | Not applicable |
| Melting point | Not applicable |
| Flash point | Not determined |
| Flammability | Nonflammable |
| Auto flammability of active ingredients | Not applicable |
| Explosive properties | Not applicable |
| Oxidising properties | Not determined |
| Vapour pressure | Not determined |
| Relative density | Approximately 1g/cubic centimeter |
| Solubility in water | Readily soluble |
| 9.3.OTHER DATA | |
| Vapor density | Not determined |
| Evaporation rate | Not determined |
| Conductivity | Not determined |
| Viscosity | Not applicable |

10.STABILITY AND REACTIVITY

If stored and handled in accordance with standard industrial practice no hazardous reactions are known.

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| 10.1.Stability | Stable |
| 10.2.Reactivity | |
| Conditions to avoid | Heating and cooling |
| Materials to avoid contact | Do not bring in contact with combustible organic or easily oxidisable material |
| Hazardous decomposition | None known |

11.TOXICOLOGICAL INFORMATION

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| 11.1.Health effects | |
| On Skin | Skin irritant but prolonged contact to be avoided |
| Eyes | May cause temporary discomfort/irritation |
| Inhalation | Mist or spray may cause allergic reactions in susceptible individuals. Avoid breathing fumes |
| Ingestion | No significant effect |
| 11.2.Other effects | Oral toxicity – LD 50 - >2000 mg/kg |

12.DISPOSAL CONSIDERATIONS

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| 13.1.Product disposal | Dispose off according to regulations by incineration in a special waste incinerator. Observe local bye-laws. |
| 13.2.Packaging disposal | Since packaging material does not get contaminated, it may be reused/recycled after thorough soap washing. Observe local bye-laws. |

13.ECOLOGICAL INFORMATION

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| 12.1.Mobility | Not known |
| 12.2.Persistence°radability | >90% Biologically degradable |
| 12.3.Bioaccumulative potential | Not known |
| 12.4.Ecotoxicity | Aquatic toxicity –LC50 – 10 mg/l |
| 12.5.Behaviour in sewage | BODfor 10 gpl – 27C for 3 days – approx 3 g/l , COD –for 10gpl solution – approx 20 g/l |

14. TRANSPORT INFORMATION

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| 14.1.UN No. | Not applicable |
| Symbols | Not applicable |
| 14.2.Road &Rail transport | No special packaging or labeling requirements |
| 14.3.GGVS/GGVE | Non-hazardous |
| 14.4.IMDG code | Non-hazardous |
| 14.5.Air Transport(ICAO/IATA) | Non hazardous, no special packaging, or labeling requirements |

15. REGULATORY INFORMATION

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| 15.1.Health and safety Information on labels | None |
| 15.2.EINECS | Exempted |

16.OTHER INFORMATION AND DATA

The information and data contained in this “ Material Safety Data Sheet” is based on our present state of scientific and technical knowledge. RESIL does not guarantee the properties of the described products in terms of legal warranty regulations. In all cases, it is the responsibility of the user to determine the applicability of such information or the suitability of any products for their own particular purpose. The physical data presented herein does not purport to be the specifications. The structure and contents of information other than the data are based on “Chemicals Hazard Information on Packaging” (CHIP) Regulations 2009 and as per : ANSI Z400.1-2004.