

The preparation mentioned in this document does not legally require an SDS. This document was prepared according article 32: Duty to communicate information down the supply chain for substances on their own or in preparations for which a safety data sheet is not required.

| 1. Identification of the preparation and manufacturer | |
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| 1.1) Identification of the preparation | ISODUR |
| 1.2) Use of the preparation | <p>The list of products that are covered by this safety information data sheet can be found in the appendix on the last page.</p> <p>USE: Synthetic polymer based on polybutyleneterephthalate with dispersed fillers, additives and colourants, used only in the industrial activities of injection molding and extrusion.</p> <p>Sector of use: SU 12 Manufacture of plastics products, including compounding and conversion.</p> <p>Product category: PC 32 Polymer preparations and compounds.</p> <p>Process category: PROC 14 Production of preparations or articles by tableting, compression, extrusion, pelletisation.</p> <p>Uses advised against : No other uses are known or allowed for this product.</p> |
| 1.3) Company identification | <p>SIRMAX SpA. - Registered office: via Fabbrega 18 Isola Vicentina (VI)</p> <p>Manufacturer:</p> <ul style="list-style-type: none"> • SIRMAX SpA - via Dell'Artigianato, 42 Cittadella (PD) – IT • SIRMAX SpA - Via Decime, 10 Tombolo (PD) - IT • Sirmax Polska Sp. z o.o.- ul. Holenderska 8, 99-300 Kutno – PL <p>Safety data sheet emission: Quality Office: via Dell' Artigianato, 42 Cittadella PD, tel. o.h. 049 9441111 - fax 049 9441112 - mfabris@sirmax.it</p> |
| 1.4) Emergency telephone | <p>Quality Office: via dell'artigianato, 42 Cittadella PD, tel. 049 9441183</p> <p>Emergency: 112</p> |
| 2) Hazards identification | |
| 2.1) Classification of preparation | The preparation does not meet the criteria for classification as hazardous in accordance with Regulation (EC) No 1272/2008. |
| 2.2) Label elements | None required |
| 2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP] | <p>P281 Use personal protective equipment as required.</p> <p>P501 Dispose of contents/container in accordance with local regulation.</p> |
| 2.2.2. Contains: | |
| 2.2.3. Special provisions: | Special hazards are not known or expected. |
| 2.3) Other hazards | The molten product adheres to the skin and causes burns.. High risk of slipping due to leakage/spillage of product.. Possible production of electrostatic chargings when used. The working steams can irritate the eyes as well as the respiratory tract. |
| 3) Composition/Data on components | |
| 3.1) Substances (for mixtures see 3.2) | |
| 3.2) Mixtures | <p>Preparation of the following components:</p> <ul style="list-style-type: none"> • PBT polybutyleneterephthalate • Disperse additives. • Mineral filler and/or glass fiber only for the filled/reinforced grades. • Colourants and pigments, only for coloured versions. |
| 4) First aid measures | |
| 4.1) First-aid measures | <p>General measures :At room temperature the product is neither an irritant nor gives off hazardous vapours. The measures listed below apply to critical situations (Fire, incorrect process conditions).</p> <p>Skin contact : After contact with molten product, cool rapidly with cold water. Do not attempt to remove molten product from skin because skin will tear easily. Immediately obtain professional medical help!</p> <p>Eye contact : Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. If irritation persist, seek professional medical attention.</p> <p>Inhalation : Remove patient to fresh air-move out of dangerous area. Obtain professional</p> |

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| | <p>medical help. Victim should rest in a warm place. If breathing is irregular or respiratory arrest provide artificial respiration. Ingestion: In case of doubt or if feeling unwell seek medical help.</p> |
| 4.2) Symptoms | <p>Skin contact : none Eye contact: Vapours and gases of the product, generated at high temperature can have an irritant effect to the eyes. Inhalation: Vapours and gases of the product, generated at high temperature can have an irritant effect to breathing apparatus. Ingestion: none</p> |
| 4.3) Indication of any immediate medical attention and special treatment needed: none | |
| 5) Fire fighting measures | |
| 5.1) Extinguishing media | <p>Suitable extinguishing media: Carbon dioxide. Dry chemical powder. Alcohol or polymer foam. Unsuitable extinguishing media : -</p> |
| 5.2) Special hazards arising from the mixture | <p>In case of fire it can release : water (H₂O), carbon dioxide (CO₂), and when lacking oxygen (O₂), carbon monoxide (CO). The products of the burning are dangerous.</p> |
| 5.3) Advice for firefighters | <p>Protective actions: In case of fire or heating do not breathe fumes/vapours. Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective clothing for fire-fighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137) .</p> |
| 6) Accidental release measures | |
| 6.1) Personal precautions, protective equipment and emergency procedures | <p>6.1.1. For non-emergency personnel - Protective equipment: Use personal protective equipment (Section 8). Emergency procedures: Ensure adequate ventilation. Keep away from sources of ignition. 6.1.2. For emergency responders: High risk of slipping due to leakage/spillage of product</p> |
| 6.2) Environmental precautions | <p>Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental entry into water or ground occurs, inform responsible authorities.</p> |
| 6.3) Methods and material for containment and cleaning up | <p>6.3.1. For containment: - 6.3.2. For cleaning up: Take up mechanically and collect in suitable container and dispose according to current regulations. 6.3.3. Other information: -</p> |
| 6.4) Reference to other sections | <p>See also sections 8 and 13.</p> |
| 7) Handling and storage | |
| 7.1) Precautions for safe handling | <p>7.1.1. Protective measures Measures to prevent fire: Ensure adequate ventilation. Take precautionary measures against explosion risks, as all types of polymers may develop dust during transporting or grinding of granules. Take precautionary measures against static discharges. Ensure adequate equipment grounding. Measures to prevent aerosol and dust generation: Prevent dusting. Measures to protect the environment: - 7.1.2. Advice on general occupational hygiene No special measures required if the manipulation takes place at room temperature. Avoid spilling/spreading the product as it may cause accidental falls. Use good personal hygiene practices-wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe dust. When bringing the material to processing temperatures gases might develop, forming: propylene hydrocarbon substances with low molecular weight and their oxidation products solvent residues traces of formaldehyde and acrylaldehyde. Traces of acids (Formic acid, acetic acid). Provide appropriate ventilation for such processing conditions. Experimental tests under different application conditions showed maximum limits of formaldehyde, acrylaldehyde, formic acid, and acetic acid being significantly below TLV- values. Do not overpass the suggested process conditions (temperatures), since the released gases are dangerous.</p> |
| 7.2) Conditions | <p>7.2.1. Technical measures and storage conditions</p> |

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| for safe storage, including any incompatibilities | <p>Keep in cool and well ventilated area. Keep in a dry place. Take precautionary measures against static discharges. Ground equipment electrically. Electric safety equipment. Keep away from sources of ignition - No smoking. Protect against heat and direct sunlight. Keep away from food, drink and animal feedingstuffs Storage in a warm place (>60°C) can cause softening of the granules and instability of the bags. Do not stack the big bags or the octabins or the platforms.</p> <p>7.2.2. Packaging materials Store the product in bags, autosilos, container, or large cartons.</p> <p>7.2.3. Requirements for storage rooms and vessels: -</p> <p>7.2.4. Storage class: -</p> <p>7.2.5. Further information on storage conditions: -</p> |
| 7.3) Specific end use(s) | <p>Recommendations: -</p> <p>Industrial sector specific solutions: -</p> |
| 8) Exposure controls and personal protection | |
| 8.1) Control parameters | <p>8.1.1. Occupational Exposure limit values</p> <p>8.1.2. Information on monitoring procedures: BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.</p> <p>8.1.3. DNEL values: No information</p> <p>8.1.4. PNEC values: No information</p> |
| 8.2) Exposure controls | <p>8.2.1. Appropriate engineering control Substance/mixture related measures to prevent exposure during identified uses: Use good personal hygiene practices-wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid the formations-when purging the press-of great agglomerates of molten material. Since the product has a low thermal conductivity, it solidifies quite quickly externally, while the inner part remains molten, at high temperature for prolonged times. This could be the cause for thermal degradation. Always wait for the complete solidification and cooling of the material coming from the press purges before handling them. Solidification in air is slow. Do not underestimate that the inner part stay molten for long times, so do not crash the purged agglomerates. Molten product spill is possible. Technical measures to prevent exposure: Provide good ventilation and local exhaust in the area with increased concentration. Provide system for collecting the vapours which are created during the working process.</p> <p>8.2.2. Personal protective equipment Eye and face protection: No requirements under normal use conditions. Safety glasses recommended during refilling Tight fitting protective goggles (EN 166). Hand protection: Thermoinsulating gloves (EN 407). Skin protection: Cotton protective clothing (EN ISO 13688) and shoes that cover the entire foot (EN ISO 20345). Respiratory protection: Molten product: In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (EN 136) with filter A2-P2. Thermal hazards: -</p> <p>8.2.3. Environmental exposure controls: -</p> |
| 9) Physical and chemical properties | |
| 9.1) General information | |
| Form: | solid, granulate. |
| Colour: | as specified in the product designation. |
| Odour: | odourless |
| 9.2) Relevant information for health, safety and environment: | |
| pH | Non applicable |
| Melting point | 215°C |
| Boiling point | Non applicable |
| Flash point | Not applicable |
| Explosion danger | Not explosive |
| Oxidising properties: | None |

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| Density at 23°C: | from 0,90 to 1,55 Kg/dm ³ |
| Solubility: | Insoluble in water, soluble or partially soluble in boiling, aromatic chlorinated solvents |
| Vapour pressure | Negligible |
| 9.3) Further data: | |
| Ignition temperature: | > 490 ° C |
| Decomposition temperature: | > 350 ° C |
| 10) Stability and reactivity | |
| 10.1. Reactivity | The product is stable at normal handling, storage and process conditions (require to SIRMAX the process data guidelines). Decomposition begins at temperatures higher than 350°C, with the release of decomposition gases and products. |
| 10.2. Chemical stability | Product is stable under normal conditions according to handling and storage. |
| 10.3. Possibility of hazardous reactions | - |
| 10.4. Conditions to avoid | The product is stable at normal handling, storage and process conditions. Decomposition begins at temperatures higher than 300°C. |
| 10.5. Incompatible materials | Strong oxidizing agents. |
| 10.6. Hazardous decomposition products | In case of fire/explosion vapours dangerous for health are spread. |
| 11) Toxicological information | |
| 11.1. Information on toxicological effects | <p>11.1.1. Acute toxicity: No information</p> <p>11.1.2. Skin corrosion/irritation, serious eye damage/irritation, aspiration hazard Additional information. The product is not classified as irritating to skin and eyes. Vapours and gases of the product, generated at high temperature can have an irritant effect to the eyes and the breathing apparatus.</p> <p>11.1.3. Respiratory or skin sensitisation: Not classified as sensitizing.</p> <p>11.1.4. Carcinogenicity, Mutagenicity, Reproductive toxicity Carcinogenicity: No information (Germ cell) mutagenicity: No information Reproductive toxicity: No information Summary of evaluation of the CMR properties: No information</p> <p>11.1.5. STOT-single and repeated exposure: No information</p> |
| 12) Ecological considerations | |
| 12.1. Toxicity | <p>12.1.1. Acute (short-term) toxicity: No information</p> <p>12.1.2. Chronic (long-term) toxicity: No information</p> |
| 12.2. Persistence and degradability | <p>12.2. Persistence and degradability</p> <p>12.2.1. Abiotic degradation, physical- and photo-chemical elimination: No information</p> <p>12.2.2. Biodegradation: No information</p> |
| 12.3. Bioaccumulative potential | <p>12.3.1. Partition coefficient n-octanol/water (log Kow): No information</p> <p>12.3.2. Bioconcentration factor (BCF): No information</p> |
| 12.4. Mobility | <p>12.4.1. Known or predicted distribution to environmental compartments: No information</p> <p>12.4.2. Surface tension: No information</p> <p>12.4.3. Adsorption/Desorption: No information</p> |
| 12.5. Results of PBT and vPvB assessment | No evaluation. |
| 12.6. Other adverse effects | No information |
| 12.7. Additional information | The product is not toxic, but small particles can have physical effects in aquatic and soil organisms. Not biodegradable. No bioaccumulation potential. Prevent contamination. |
| 13) Disposal considerations | |
| 13.1. Waste treatment methods | <p>13.1.1. Product / Packaging disposal Waste chemical: Disposal must be made according to official regulations: to leave it to authorized collector/remover/transformer of hazardous waste. Suitable for incineration in</p> |

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| | <p>approved incinerators or appropriate, authorized disposal plants. Packaging: Completely emptied container dispose according to regulations. 13.1.2. Waste treatment-relevant information: - 13.1.3. Sewage disposal-relevant information: - 13.1.4. Other disposal recommendations:-</p> |
| 14) Transport information | |
| <p>14.1. UN number 14.2. UN proper shipping name 14.3. Transport hazard class(es) 14.4. Packing group 14.5. Environmental hazards 14.6. Special precautions for user 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</p> | <p>- Not dangerous according to ADR. - - NO - -</p> |
| 15) Regulatory information | |
| <p>15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture</p> | <p>- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) - Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures 15.1.1. Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline) not applicable</p> |
| <p>15.2. Chemical Safety Assessment</p> | <p>No Chemical Safety Assessment has been carried out for this mixture by the supplier.</p> |
| 16) Other information | |
| <p>Indication of recent/last changes: document revised according CLP</p> <p>Key literature references and sources for data: internal data from the company, technical literature.</p> <p>List of relevant H phrases: none</p> <p>The information supplied has been based upon the current level of information available, for the purpose of specifying the requirements regarding environment, health and safety in conjunction with the product. They are not to be interpreted as a warranty for specific product characteristics. Sirmax takes no responsibility for inappropriate use, processing and handling by purchasers and users of the product.</p> <p>These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.</p> | |

ANNEX: Alphabetical list of materials to whom this document is applicable

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| 1B0012 | ISODUR A 15 05 NA |
| 1B0010 | ISODUR A 15 10 GF15 NA |
| 1B0028 | ISODUR A 15 10 GF15 NA1 |
| 1B0008 | ISODUR A 15 10 GF20 BK1 |
| 1B0001 | ISODUR A 15 10 GF30 BK |
| 1B0006 | ISODUR A 15 10 GF30 GR1085 |
| 1B0004 | ISODUR A 15 10 GF30 NA |
| 1B0009 | ISODUR A 15 20 GF15 BK1 |
| 1B0015 | ISODUR A 15 20 GF20 NA |
| 1B0023 | ISODUR A 15 25 GF30 NA |
| 1B0024 | ISODUR A 20 05 SI NA |
| 1B0022 | ISODUR A 20 05 TF NA |
| 1B0030 | ISODUR A 45 05 N NA |
| 1B0011 | ISODUR B 10 15 GF30 V1 NA |
| 1B0016 | ISODUR B 15 10 GF30 BK |
| 1B0017 | ISODUR B 20 10 GF20 BK |
| 1B0027 | ISODUR B 20 10 GF35 BK |