Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Europe

SAFETY DATA SHEET



Arnitel® EM550

1.1 Product identifier Product name : Arnitel® EM550 : WW34028 Internal code 1.2 Relevant identified uses of the substance or mixture and uses advised against Not applicable. Recommended use : plastic products, Industrial use

SECTION 1: Identification of the substance/mixture and of the company/undertaking

| 1.3 Details of the suppl | ier of the safety data sheet | the safety data sheet | | | |
|--------------------------|--|--|--|--|--|
| Supplier | DSM Engineering Materials B.V. P.O. Box 1077 6160 BB Geleen The Netherlands T: +31-(0)46-7506500 | SM Japan Engineering Materials K.K. The Front Tower Shiba Koen, 8th Fl. 2-6-3, Shiba Koen Minato-ku Tokyo 105-0011 Japan T: +81-3-5404-8340 | | | |
| | DSM Engineering Materials, Inc. 2267 West Mill Road Evansville, IN 47720 USA T: +1-812-435-7500 | DSM India Private Limited F 40 MIDC Industrial Area Pune 412220 India T: +91-2138671901 | | | |
| | DSM Engineering Materials (Jiangsu) Co., Ltd. 476 Li Bing Road ZhangJiang High-Tech Park Pudong Shanghai, 201203 P.R. China | DSM South America Ltda. Rua Doutor Ulisses Guimarães, 504 Loteamento Industrial Coral, Sertãozinho Mauá-SP CEP: 09372-050 Brasil | | | |

T: +86-510-86198228

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Republic of Korea T: +82-32-260-3400

No.1002, Michuhol Tower

: Info.Worldwise@dsm.com

#12, Gaetboel-ro, Yeonsu-gu

America Ltda. Jlisses Guimarães, 504 Industrial Coral, Sertãozinho P: 09372-050 Brasil T: +55-11-3760-6411 Tai-Young Nylon Co. Ltd. DSM Engineering Materials Korea Co., Ltd.

No. 25, Ta-Yeh St., Ta-Liau Dist. Kaohsiung City 831-62 Taiwan T: +886-7-7872251

1.4 Emergency telephone number

e-mail address of person

responsible for this SDS

| Emergency telephone | : B elgium: +32 3 575 5555 |
|---------------------|-----------------------------------|
| number | |

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Remarks

: Hazard of slipping on spilt product. Heated material can cause thermal burns. Electrostatic charging can occur during unloading or processing of this material. If necessary take precautionary measures against static discharges. The likelihood of adverse health effects arising from normal use of the product is considered very low. Appropriate precautions should be taken if the product is subjected to secondary processing. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Dust may cause mechanical irritation.

2.2 Label elements

| Safety Data Sheet | Arnitel® EM550 |
|--|---|
| | |
| Signal word | : No signal word. |
| Hazard statements | : No known significant effects or critical hazards. |
| Supplemental label elements | : Not applicable. |
| Precautionary statements | |
| General | : Not applicable. |
| Prevention | : Not applicable. |
| Response | : Not applicable. |
| Storage | : Not applicable. |
| Disposal | : Not applicable. |
| Hazardous ingredients | : |
| 2.3 Other hazards | |
| Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII | : This mixture does not contain any substances that are assessed to be a PBT or a vPvB. |
| Other hazards which do not result in classification | : Heated material can cause thermal burns. |

SECTION 3: Composition/information on ingredients

| 3.1 Substances / 3.2 Mixtures | Mixture |
|----------------------------------|--|
| Chemical description | Base polymer: thermoplastic polyester elastomer. If the color of the product is black, the product may contain up to 0.9% carbon black. |
| There are no ingredients present | ich, within the current knowledge of the supplier and in the concentrations applicable, are |

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section. **Remarks**The components of this product are embedded in an impervious polymer matrix and are therein the components of the product are embedded in an impervious polymer matrix.

| | narks : | The components of this product are embedded in an impervious polymer matrix and are therefore not biologically available. Any hazardous constituents are fixed in the polymer matrix and therefore present a negligible exposure risk under normal conditions of processing and handling. Additives contained in this product do not pose a risk to health unless they are liberated during processing (fumes from melting, dusts). Suitable Industrial Hygiene precautions should be implemented to prevent (respirable) dust and fume exposures. Exposure to (melting) fumes should be kept as low as possible, using suitable ventilation equipment. Dusts and fumes created from secondary processing may be irritating to respiratory tract and skin and should be considered as potentially hazardous. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. |
|--|---------|--|
|--|---------|--|

SECTION 4: First aid measures

4.1 Description of first aid measures

| 4.1 Besonption of mot and i | |
|-----------------------------|--|
| Eye contact | : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| Inhalation | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| Skin contact | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Do not remove clothing adhering to skin. |
| Ingestion | : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. |

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

| Eye contact | : | No specific data. |
|--------------|---|-------------------|
| Inhalation | : | No specific data. |
| Skin contact | : | No specific data. |
| Ingestion | : | No specific data. |

4.3 Indication of any immediate medical attention and special treatment needed



| | afighting measures |
|---------------------|---|
| Specific treatments | : No specific treatment. |
| Notes to physician | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |

TION 5: Firefighting measures

| 5.1 Extinguishing media Suitable Not suitable | : Use an extinguishing agent suitable for the surrounding fire. : None known. |
|---|---|
| 5.2 Special hazards arising f | rom the substance or mixture |
| Hazards from the substance or mixture | : No specific fire or explosion hazard. |
| Hazardous combustion products | : Decomposition products may include the following materials: carbon dioxide carbon monoxide (dense) black smoke aldehydes organic acids |
| 5.3 Advice for firefighters | |
| Special protective actions for fire-fighters | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire- fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures For non-emergency : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or personnel walk through spilt material. Put on appropriate personal protective equipment. : If specialised clothing is required to deal with the spillage, take note of any information in Section For emergency 8 on suitable and unsuitable materials. See also the information in "For non-emergency responders personnel". 6.2 Environmental : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. precautions Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). 6.3 Methods and material for containment and cleaning up Small spill : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Large spill : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

SECTION 7: Handling and storage

:

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

See Section 13 for additional waste treatment information.

See Section 8 for information on appropriate personal protective equipment.

See Section 1 for emergency contact information.

7.1 Precautions for safe handling

6.4 Reference to other

sections

| Protective measures | : Use with adequate ventilation. Local exhaust ventilation should be provided. Avoid creating dusty conditions and prevent wind dispersal. Take measures against static discharge. Keep away from sources of ignition. |
|--|---|
| Advice on general occupational hygiene | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

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|--|--|---------------------------|
| 7.2 Conditions for safe storage, including any incompatibilities | Store in accordance with local regulations. Store in a dry, cool and well-ventilated area from incompatible materials (see Section 10). Store in original container, protected fror sunlight. Keep container tightly closed and sealed until ready for use. Containers that h opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamina Section 10 for incompatible materials before handling or use. | n direct ave been i |
| 7.3 Specific end use(s) | | |
| Recommendations | Not available. | |
| Industrial sector specific solutions | Not available. | |
| Remarks | Big Bags may not be stacked. Never stack pallets more than two high to prevent the risk falling over. Pallets should not be stacked along the aisles. | of them |

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

| Product/ingredient name | | nt name | Exposure limit values |
|--|-----|---|---|
| No exposure limit value known. | | | |
| Recommended monitoring procedures | : | biological monitoring control measures and should be made to m (Workplace atmosphe agents for compariso 14042 (Workplace at assessment of expos (Workplace atmosphe measurement of cher | hs ingredients with exposure limits, personal, workplace atmosphere or may be required to determine the effectiveness of the ventilation or other d/or the necessity to use respiratory protective equipment. Reference onitoring standards, such as the following: European Standard EN 689 eres - Guidance for the assessment of exposure by inhalation to chemical n with limit values and measurement strategy) European Standard EN mospheres - Guide for the application and use of procedures for the ure to chemical and biological agents) European Standard EN 482 eres - General requirements for the performance of procedures for the mical agents) Reference to national guidance documents for methods for hazardous substances will also be required. |
| DNELs/DMELs | | | |
| No DNELs/DMELs available |). | | |
| PNECs No PNECs available | | | |
| 8.2 Exposure controls | | | |
| Appropriate engineering controls | : | Good general ventilati | ion should be sufficient to control worker exposure to airborne contaminants |
| Individual protection measu | res | <u>i</u> | |
| Hygiene measures | : | smoking and using the should be used to rem | s and face thoroughly after handling chemical products, before eating, e lavatory and at the end of the working period. Appropriate techniques nove potentially contaminated clothing. Wash contaminated clothing before eyewash stations and safety showers are close to the workstation location. |
| Eye/face protection | : | | de shields. When handling hot material, wear heat-resistant protective ace shield that are able to withstand the temperature of the molten product. |
| | | Use eye protection acc | cording to EN 166. |
| Hand protection | : | | When handling hot material, wear heat-resistant protective gloves that are temperature of molten product. |
| Skin and body | : | Working clothes. | |
| Respiratory protection | : | No special protection equipment. | is required. In case of insufficient ventilation, wear suitable respiratory |
| Environmental exposure controls | : | with the requirements | ation or work process equipment should be checked to ensure they comply of environmental protection legislation. In some cases, fume scrubbers, nodifications to the process equipment will be necessary to reduce ble levels. |
| Remarks | : | If the color of the produ | uct is black, the product may contain up to 0.9% carbon black. |
| Advice on personal protecti assessment of the actual ex | | | exposure levels. Select proper personal protection based on a risk |

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SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

| Physical state | : 5 | Solid. [Pellets.] |
|---|-----|--|
| Colour | : r | naturally opaque, dependent on the added pigment |
| Odour | : 1 | Not available. |
| рН | : N | Not available. |
| Melting point/freezing point | : 1 | 155 to 225 °C |
| Initial boiling point and boiling range | : N | Not available. |
| Flash point | : > | >350 °C |
| Flammability (solid, gas) | : N | Not available. |
| Evaporation rate | : N | Not available. |
| Upper/lower flammability or explosive limits | : 🚺 | Not applicable. |
| Vapour pressure | : 🖡 | Not available. |
| Vapour density | : N | Not available. |
| Relative density | : > | >1 (Water = 1) |
| Density | : Þ | ✓ g/cm³ |
| Solubility | : 1 | nsoluble in the following materials: cold water. |
| Solubility in water | : 1 | Not available. |
| Partition coefficient: n- octanol/water | : 🖡 | Not applicable. |
| Auto-ignition temperature | : > | > 400 °C |
| Decomposition temperature | : > | >300°C |
| Viscosity | : 🖡 | Not applicable. |
| Explosive properties | : 1 | Not available. |
| Oxidising properties | : 1 | Not available. |
| Particle characteristics | | |
| Median particle size | : 🚺 | Not available. |
| 9.2 Other information Minimum ignition | : 4 | 400 °C |
| temperature | | |

: If the color of the product is black, the product may contain up to 0.9% carbon black.

SECTION 10: Stability and reactivity

Remarks

| 10.1 Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
|--|--|
| 10.2 Chemical stability | : The product is stable. |
| 10.3 Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : No specific data. |
| 10.5 Incompatible materials | : No specific data. |
| 10.6 Hazardous decomposition products | : No specific data. |
| Remarks | : At processing temperatures some degree of thermal degradation may occur. see section 5. |



SECTION 11: Toxicological information

| SECTION II. TO | xicological information |
|-----------------------------|--|
| 11.1 Information on toxico | ological effects |
| Acute toxicity | |
| Conclusion/Summary | : Not available. |
| Acute toxicity estimates | |
| N/A | |
| Irritation/Corrosion | |
| Conclusion/Summary | |
| Eyes | : Not available. |
| Skin | : Not available. |
| Respiratory | : Not available. |
| Sensitisation | |
| Conclusion/Summary | |
| Skin | : Not available. |
| Respiratory | : Not available. |
| Mutagenicity | |
| Conclusion/Summary | : Not available. |
| Carcinogenicity | |
| Conclusion/Summary | : Not available. |
| Reproductive toxicity | . Hot ataliusio. |
| | |
| Conclusion/Summary | : Not available. |
| Teratogenicity | |
| Conclusion/Summary | : Not available. |
| Specific target organ toxic | ity (single exposure) |
| Not available. | |
| Specific target organ toxic | ity (repeated exposure) |
| Not available. | |
| Aspiration hazard | |
| Not available. | |
| Potential acute health effe | ects |
| Eye contact | No known significant effects or critical hazards. |
| Inhalation | : No known significant effects or critical hazards. |
| Skin contact | : Heated material can cause thermal burns resulting in pain, redness, blistering. |
| Ingestion | : No known significant effects or critical hazards. |
| Symptoms related to the | physical, chemical and toxicological characteristics |
| Eye contact | : No specific data. |
| Inhalation | : No specific data. |
| Skin contact | : No specific data. |
| Ingestion | : No specific data. |
| Potential chronic health e | effects |
| Not available. | |
| Conclusion/Summary | : Not available. |
| General | : No known significant effects or critical hazards. |
| Carcinogenicity | : No known significant effects or critical hazards. |
| Mutagenicity | : No known significant effects or critical hazards. |
| Reproductive toxicity | : No known significant effects or critical hazards. |
| Remarks | : If the color of the product is black, the product may contain up to 0.9% carbon black. |
| Remarks | : The components of this product are embedded in an impervious polymer matrix and are therefore not |
| | biologically available. The likelihood of adverse health effects arising from normal use of the product are considered very low. |
| | |



SECTION 12: Ecological information

| 12.1 Toxicity | |
|--------------------|------------------|
| Conclusion/Summary | : Not available. |

| 12.2 Persistence and degra | adability |
|----------------------------|------------------|
| Conclusion/Summary | : Not available. |

12.3 Bioaccumulative potential

| 12.4 Mobility in soil | |
|--|------------------|
| Soil/water partition coefficient (Koc) | : Not available. |
| Mobility | : Not available. |

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

| 12.6 Other adverse effects | No known significant effects or critical hazards. | | | |
|----------------------------|---|--|--|--|
| Remarks | The components of this product are embedded in an impervious polymer matrix and are therefore | | | |
| | not biologically available. This product is not biodegradable and not toxic to aquatic organisms. | | | |

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. Reference number: 2008/98/EC.

13.1 Waste treatment methods

| Product | |
|---------------------|---|
| Methods of disposal | : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. |
| Hazardous waste | : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC. |
| Packaging | |
| Methods of disposal | The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. |
| Special precautions | : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. |

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|------------------------------------|----------------|----------------|----------------|----------------|
| 14.1 UN number | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - | - |
| 14.4 Packing group | - | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. | No. |



14.6 Special precautions for user

: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk : Not applicable. according to IMO instruments

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions : Not applicable. on the manufacture, placing on the market and

use of certain dangerous substances, mixtures and articles

Ozono dor

Ozone depleting substances (1005/2009/EU) Not listed.

Prior Informed Consent (PIC) (649/2012/EU) Not listed.

Persistent Organic Pollutants Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

| Ingredient name | | List name | Status |
|----------------------------------|---|-----------|--------|
| Not listed. | | | |
| Montreal Protocol | | L | • |
| Ingredient name | | | Status |
| Not listed. | | | |
| Stockholm Convention or | n Persistent Organic Pol | lutants | |
| Ingredient name | | List name | Status |
| Not listed. | | | |
| Rotterdam Convention or | n Prior Informed Consen | t (PIC) | |
| Ingredient name | | List name | Status |
| Not listed. | | | |
| UNECE Aarhus Protocol | on POPs and Heavy Meta | als | |
| Ingredient name | | List name | Status |
| Not listed. | | | |
| emarks | : If the color of the product is black, the product may contain up to 0.9% carbon black. | | |
| Remarks | : Listings of substances in this section are based on the presence of these substances above th applicable concentration limit. Relevant declarations related to this product are available on re | | |
| 5.2 Chemical safety ssessment | : No Chemical Safety Assessment has been carried out. | | |



SECTION 16: Other information

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] Classification Justification Not classified. Full text of abbreviated H statements Not applicable. Full text of classifications [CLP/GHS] Not applicable. Information : Alterations compared to the : Alterations compared to the previous version are marked with a little (blue) triangle. previous version Abbreviations and acronyms : ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement N/A = Not available IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative Sources of key data : Literature data and/or investigation reports are available through the manufacturer. Internal code WW34028 **Training advice** : Before handling this substance/preparation, the personnel involved should be instructed by means of this safety data sheet. Notice to reader

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.

The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

| History | |
|------------------|----------------|
| Date of printing | : 14 May 2022. |
| Date of issue | : 14 May 2022 |
| Version | : 7.12 |