Hercul

Printing date 08/03/2016

Product identifier

· Trade name Article number:

Lact

Label elements

Signal word

· Hazard pictograms

· Hazard statements

Other hazards

PBT:

Safety Data Sheet

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Safety Data Sheet acc. to OSHA HCS

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Hercul acc. to OSHA HCS Reviewed on 08/02/2016 Printing date 08/03/2016 Reviewed on 08/02/2016 Trade name: HERCULAN SR 320 { A } (Contd. of page 1) · vPvB: Not applicable. HERCULAN SR 320 { A } 708500/18 Application of the substance / the mixture Coating compound/ Surface coating/ paint 3 Composition/information on ingredients Details of the supplier of the safety data sheet Chemical characterization: Mixtures Manufacturer/Supplier: Description: There are no additional ingredients present which are classified as hazardous to health or the HERCULAN B.V. environment and on this basis need to be mentioned in this section. Energieweg 6 · Dangerous components: 4231 DJ Meerkerk The Netherlands 14808-60-7 Quartz (SiO2) & Carc. 1A. H350: STOT RE 2. H373 ≤ 0.5% Phone +31 183 354700 · Additional information: For the wording of the listed hazard phrases refer to section 16 Fax: +31 183 354740 e-mail: info@herculan.com 4 First-aid measures Information department: Enviromental department Emergency telephone number: · Description of first aid measures +49 (0) 6131 19240 [24 h - 365 d] - Giftinformationszentrale Mainz · After inhalation: Supply fresh air; consult doctor in case of complaints. · After skin contact: Generally the product does not irritate the skin. +31 (0) 183 354 700 [Mo - Fr. 8 - 17 o'clock] - HERCULAN After eve contact: 0+ Rinse opened eye for several minutes under running water. 2 Hazard(s) identification After swallowing: If symptoms persist consult doctor. Classification of the substance or mixture · Information for doctor: · Most important symptoms and effects, both GHS08 Health hazard acute and delayed No further relevant information available · Indication of any immediate medical attention Carc. 1A H350 May cause cancer. and special treatment needed No further relevant information available H362 May cause harm to breast-fed children. 5 Fire-fighting measures GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). · Extinguishing media GHS08 Suitable extinguishing agents: Danger CO2, extinguishing powder or water spray. Fight larger fires with water spray or Hazard-determining components of labeling: Quartz (SiO2) alcohol resistant foam alkanes, C14-17, chloro Use fire fighting measures that suit the environment. H350 May cause cancer. Special hazards arising from the substance or H362 May cause harm to breast-fed children. mixture During heating or in case of fire poisonous gases are produced. Precautionary statements P263 Avoid contact during pregnancy/while nursing. Formation of toxic gases is possible during heating or in case of fire. P260 Do not breathe dust/fume/gas/mist/vapors/spray. · Advice for firefighters P280 Wear protective gloves/protective clothing/eye protection/face protection. Protective equipment: P264 Wash thoroughly after handling. Mount respiratory protective device. Do not inhale explosion gases or combustion gases. P270 Do not eat, drink or smoke when using this product. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. 6 Accidental release measures P308+P313 IF exposed or concerned: Get medical advice/attention P405 Store locked up. Dispose of contents/container in accordance with local/regional/national/ · Personal precautions, protective equipment P501 international regulations. and emergency procedures Mount respiratory protective device. Classification system: Environmental precautions: Do not allow to enter sewers/ surface or ground water. NFPA ratings (scale 0 - 4) Health = 0Methods and material for containment and Fire = 1cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Reactivity = 0 Dispose contaminated material as waste according to item 13. Ensure adequate ventilation. HMIS-ratings (scale 0 - 4) Health = 00 · Reference to other sections No dangerous substances are released. Fire = 1 See Section 7 for information on safe handling. Reactivity = 0 See Section 8 for information on personal protection equipment. See Section 13 for disposal information. Results of PBT and vPvB assessment Not applicable. (Contd. on page 3) (Contd. on page 2)

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Trade name: HERCULAN SR 320 { A }

(Contd. of page 2)

| Handling: | | |
|--|--|--|
| Precautions for safe handling | No special measures required. | |
| r recautions for sale handling | Ensure good ventilation/exhaustion at the workplace. | |
| | Open and handle receptacle with care. | |
| | Prevent formation of aerosols. | |
| Information about protection against | | |
| explosions and fires: | Keep respiratory protective device available. | |
| Conditions for safe storage, including | a any incompatibilities | |
| Storage: | | |
| Requirements to be met by storeroon | ns and | |
| receptacles: | No special requirements. | |
| Information about storage in one con | | |
| storage facility: | Not required. | |
| Further information about storage co | | |
| · · · · · · · · · · · · · · · · · · · | Keep receptacle tightly sealed. | |
| | Store in dry conditions. | |
| | Store in a cool place. | |
| | No further relevant information available. | |

8 Exposure controls/personal protection

| Additional information about design of technical systems: | No further data; see item 7. |
|--|---|
| Control parameters Components with limit values that require monitoring at the workplace: | The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. |
| · Additional information: | The lists that were valid during the creation were used as basis. |
| Exposure controls Personal protective equipment: | |
| General protective and hygienic measures: | Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Store protective clothing separately. Do not eat, drink, smoke or sniff while working. |
| · Breathing equipment: | Only during spraying without adequate removal by suction. |
| | Use suitable respiratory protective device in case of insufficient ventilation. Use suitable respiratory protective device when high concentrations are present. |
| · Recommended filter device for short term | |
| use: · Protection of hands: | Combination filter A-P2 |
| | The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. |
| · Material of gloves | The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. |
| Penetration time of glove material | The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended. |
| | (Contd. on page 4) |

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| | | (Contd. of page 3) |
|---|---|--------------------|
| As protection from splashes gloves made | e of | |
| the following materials are suitable: | Nitrile rubber, NBR Natural rubber, NR | |
| · Eye protection: | Tightly sealed goggles | |
| · Body protection: | Protective work clothing | |
| 9 Physical and chemical properties | | |

· Information on basic physical and chemical properties · General Information Appearance: Form: Fluid Color: According to product specification · Odor: Characteristic · Odor threshold: Not determined. · pH-value: Not determined. · Change in condition Melting point/Melting range: Undetermined. Boiling point/Boiling range: >200 °C (>392 °F) Flash point: 164 °C (327 °F) · Flammability (solid, gaseous): Not applicable. · Ignition temperature: Decomposition temperature: Not determined. · Auto igniting: Product is not selfigniting. Danger of explosion: Product does not present an explosion hazard. Explosion limits: . Lower: Not determined. Upper: Not determined. · Vapor pressure: Not determined. Density at 20 °C (68 °F): 1.29 g/cm3 (10.765 lbs/gal) · Relative density Not determined. · Vapor density Not determined. Evaporation rate Not determined. · Solubility in / Miscibility with Water: Not miscible or difficult to mix. · Partition coefficient (n-octanol/water): Not determined. · Viscosity: Dynamic: Not determined. Kinematic: Not determined. Solvent content: Organic solvents: 0.9 % Water: 0.0 % Solids content: 61.1 % • Other information No further relevant information available. -118-

(Contd. on page 5)

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| | (contai of page 1) | | |
|---|--------------------|---|---|
| | | • 13 Disposal considerations | |
| t information available. if used according to specifications. | | Waste treatment methods Recommendation: Uncleaned packagings: | Must not be disposed of together with household garbage. Do not allow product to reach sewage system. |
| ctions known. t information available. t information available. | | · Recommendation: | Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. |
| composition products known. | | • 14 Transport information | |
| | | · UN-Number · DOT, ADR, ADN, IMDG, IATA | Void |
| | | · UN proper shipping name · DOT, ADR, ADN, IMDG, IATA | Void |
| | | · Transport hazard class(es) | |

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| · IARC (Inte | ernational Agency for Research on Cancer) | |
|--------------|---|----|
| 1318-02-1 | Zeoliet | 3 |
| 14808-60-7 | Quartz (SiO2) | 1 |
| 13463-67-7 | titanium dioxide | 2B |
| · NTP (Nati | onal Toxicology Program) | |
| 14808-60-7 | Quartz (SiO2) | K |
| · OSHA-Ca | (Occupational Safety & Health Administration) | |
| None of the | ingredients is listed. | |

12 Ecological information

| · Toxicity | |
|--|---|
| · Aquatic toxicity: | |
| 85535-85-9 alkanes, C14-17, chloro | |
| Accute LC50 1 mg/L (Gammarus pulex) | |
| Acute EC50 0.006 mg/L (Daphnia Magna) | |
| Persistence and degradability | No further relevant information available. |
| Behavior in environmental systems: | |
| Bioaccumulative potential | No further relevant information available. |
| · Mobility in soil | No further relevant information available. |
| Additional ecological information: | |
| · General notes: | Water hazard class 2 (Self-assessment): hazardous for water |
| | Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. |
| Results of PBT and vPvB assessment | |
| · PBT: | Not applicable. |
| · vPvB: | Not applicable. |
| · Other adverse effects | No further relevant information available. |

(Contd. on page 6)

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. · UN "Model Regulation": Void

· DOT, ADR, ADN, IMDG, IATA

· Packing group · DOT, ADR, IMDG, IATA

· Environmental hazards: • Marine pollutant:

· Special precautions for user

Class

| Section 3 | 355 (extremely hazardous substances): | |
|-------------|---|--|
| None of the | e ingredient is listed. | |
| Section 3 | 313 (Specific toxic chemical listings): | |
| None of the | e ingredients is listed. | |
| TSCA (To | oxic Substances Control Act): | |
| 36890-68-3 | 3 .εcaprolactone, oligomeric reaction products with 2,2'-oxydiethanol | |
| 1332-58-7 | 7 Kaolinite | |
| 31831-53-5 | 5 2-oxepanone, polymer with 1.4 butandiol | |
| 68186-91-4 | 4 Copper chromite spinel pigment Cu(Cr,Fe)2O4 | |
| 56-81-5 | 5 glycerol | |
| 110-63-4 | 4 butane-1,4-diol | |
| 111-46-6 | 6 2,2'-oxydiethanol | |
| 69011-20-7 | 7 Styreen-Divinylbenzen-Copolymer | |
| 502-44-3 | 3 hexan-6-olide | |
| Propositi | ion 65 | |
| Chemical | Is known to cause cancer: | |
| None of the | e ingredients is listed. | |

Void

Void

No

Not applicable.

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| Breethilte | |
|---|---|
| Reactivity | No further relevant information available. |
| · Chemical stability | |
| Thermal decomposition / conditions to b | e |
| avoided: | No decomposition if used according to specifications. |
| Possibility of hazardous reactions | No dangerous reactions known. |
| · Conditions to avoid | No further relevant information available. |
| Incompatible materials: | No further relevant information available. |
| Hazardous decomposition products: | No dangerous decomposition products known. |

11 Toxicological information

| Information on toxicological effects | |
|--|--|
| Acute toxicity: | |
| Primary irritant effect: | |
| · on the skin: | No irritant effect. |
| on the eye: | No irritating effect. |
| Sensitization: | No sensitizing effects known. |
| · Additional toxicological information: | The product shows the following dangers according to internally approved calculation methods for preparations: |
| · Carcinogenic categories | |
| · IARC (International Agency for Research | on Cancer) |
| 1318-02-1 Zeoliet | 3 |
| 1 1000 00 7 0 | 1 |

| Hercul <mark>o</mark> n | Page 7/8 Safety Data Sheet acc. to OSHA HCS | HERCUL | Page 8/ Safety Data Sheet acc. to OSHA HCS |
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| Printing date 08/03/2016 | Reviewed on 08/02/2016 | Printing date 08/03/2016 | Reviewed on 08/02/2010 |
| Trade name: HERCULAN SR 320 { A } | | Trade name: HERCULAN SR 320 { A } | |
| | (Contd. of page 6) | | (Contd. of page 7 |
| · Chemicals known to cause reproductive toxic | ity for females: | | |
| None of the ingredients is listed. | | * 16 Other information | |
| · Chemicals known to cause reproductive toxic | ity for males: | This information is based on our present knowledg establish a legally valid contractual relationship. | ge. However, this shall not constitute a guarantee for any specific product features and shall no |
| None of the ingredients is listed. | | | |
| · Chemicals known to cause developmental tox | xicity: | Department issuing SDS: Contact: | Environmental Department Dr. Michael Kissel |
| None of the ingredients is listed. | | Date of preparation / last revision | 08/03/2016 / 17 |
| · Cancerogenity categories | | Abbreviations and acronyms: | RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulation Concerning the International Transport of Dangerous Goods by Rail) |
| · EPA (Environmental Protection Agency) | | | ICAO: International Civil Aviation Organisation ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning th |
| None of the ingredients is listed. | | | International Carriage of Dangerous Goods by Road) |
| TLV (Threshold Limit Value established by AC | CGIH) | | IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation |
| 1332-58-7 Kaolinite | A4 | | IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists |
| 14808-60-7 Quartz (SiO2) | A2 | | EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances |
| 13463-67-7 titanium dioxide | A4 | | CAS: Chemical Abstracts Service (division of the American Chemical Society) |
| MAK (German Maximum Workplace Concentra | ation) | | NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) |
| 14808-60-7 Quartz (SiO2) | 1 | | PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative |
| 13463-67-7 titanium dioxide | 34 | | NIOSH: Valianal Institute for Occupational Safety OSHA: Occupational Safety & Health |
| NIOSH-Ca (National Institute for Occupational | | | TLV: Threshold Limit Value |
| 14808-60-7 Quartz (SiO2) | | | PEL: Permissible Exposure Limit REL: Recommended Exposure Limit |
| 13463-67-7 titanium dioxide | | | Carc. 1A: Carcinogenicity – Category 1A Lact.: Reproductive toxicity – effects on or via lactation |
| · GHS label elements | The product is classified and labeled according to the Globally Harmonized System (GHS). | | STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 |
| · Hazard pictograms | GHS08 | * Data compared to the previous version altered. | |
| | Danger | anerea. | - 115 |
| · Hazard-determining components of labeling: | Quartz (SiO2) | | |
| mazaru-uetermining components of labering. | alkanes, C14-17, chloro | | |
| · Hazard statements | H350 May cause cancer. | | |
| | H362 May cause harm to breast-fed children. | | |
| Precautionary statements | P263 Avoid contact during pregnancy/while nursing. | | |
| | P260 Do not breathe dust/fume/gas/mist/vapors/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. | | |
| | P264 Wash thoroughly after handling. | | |
| | P270 Do not eat, drink or smoke when using this product. | | |
| | P201 Obtain special instructions before use. | | |
| | P202 Do not handle until all safety precautions have been read and understood. | | |
| | P308+P313 IF exposed or concerned: Get medical advice/attention. P405 Store locked up. | | |
| | P501 Dispose of contents/container in accordance with local/regional/national/ | | |
| | international regulations. | | |
| · National regulations: | | | |
| · Additional classification according to Decree | | | |
| on Hazardous Materials: | Carcinogenic hazardous material group III (dangerous). | | |
| Information about limitation of use: | Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases. | | |
| · Technical instructions (air): | Class Share in % | | |
| | | | |
| | NK 0.9 | | |
| Water hazard class: | Water hazard class 2 (Self-assessment): hazardous for water. | | |
| | | | |
| · VOC EU [%] | 0.00 % | | |
| · VOC USA · VOC CH | 9.8 g/l / 0.08 lb/gl | | |
| · VLN. L.M | 0.00 % | | |
| · Chemical safety assessment: | A Chemical Safety Assessment has not been carried out. | | |