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Safety Data Sheet acc. to OSHA HCS

Printing date 08/03/2016 Reviewed on 08/02/2016

· Product identifier

HERCULAN GLP TC { B } · Trade name:

Article number: 902760/14

Application of the substance / the mixture Coating compound/ Surface coating/ paint

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

HERCULAN B.V. Energieweg 6

4231 DJ Meerkerk The Netherlands Phone +31 183 354700 Fax: +31 183 354740 e-mail: info@herculan.com

Information department: Enviromental department

Emergency telephone number:

+49 (0) 6131 19240 [24 h - 365 d] - Giftinformationszentrale Mainz

+31 (0) 183 354 700 [Mo - Fr. 8 - 17 o'clock] - HERCULAN

2 Hazard(s) identification

Classification of the substance or mixture



Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

Label elements GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms GHS07 Signal word Warning

· Hazard-determining components of labeling: Hexamethylene diisocyanate, oligomers

hexamethylene-di-isocyanate

Hazard statements H332 Harmful if inhaled H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P321 Specific treatment (see on this label)

P363 Wash contaminated clothing before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of water.

P405 Store locked up

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/

international regulations.

· Classification system:

NFPA ratings (scale 0 - 4)

Health = 1

Reactivity = 01 Health = 1 Fire = 1 Reactivity = 0

· HMIS-ratings (scale 0 - 4)

Other hazards

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· Results of PBT and vPvB assessment

. PRT. Not applicable. · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

Description: There are no additional ingredients present which are classified as hazardous to health or the environment and on this basis need to be mentioned in this section.

· Dangerous components: Additional information:

28182-81-2 Hexamethylene diisocyanate, oligomers

(1) Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335 50 - 100%

For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· Description of first aid measures

General information:



Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation. · After skin contact: Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

· After eye contact:



Rinse opened eye for several minutes under running water.

· After swallowing: If symptoms persist consult doctor.

· Information for doctor:

· Most important symptoms and effects, both

acute and delayed

No further relevant information available

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

· Extinguishing media

Suitable extinguishing agents:



CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

· Special hazards arising from the substance or

mixture

Formation of toxic gases is possible during heating or in case of fire · Advice for firefighters

Protective equipment:

Mount respiratory protective device.

Do not inhale explosion gases or combustion gases.

6 Accidental release measures

Personal precautions, protective equipment

and emergency procedures Not required.

· Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation

· Reference to other sections See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

· Handling:

Precautions for safe handling

No special measures required.

Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

Information about protection against

explosions and fires:

No special measures required.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and

receptacles:

No special requirements.

Information about storage in one common

storage facility:

Not required

Further information about storage conditions: Protect from frost.

Keep receptacle tightly sealed. Store in dry conditions. Store in a cool place.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of

technical systems:

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.

No further data; see item 7.

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

Protective gloves

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.

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· Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves

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.

· As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR Natural rubber NR

Eye protection:

Tightly sealed goggles

Body protection:



Protective work clothing

· 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: >150 °C (>302 °F)

Flash point: 161 °C (322 °F)

· Flammability (solid, gaseous): Not applicable.

Ignition temperature:

Decomposition temperature: Not determined

Auto igniting: Product is not selfianiting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower: Not determined Upper: Not determined.

· Vapor pressure at 20 °C (68 °F): 0.0001 hPa

Density at 20 °C (68 °F): 1.09674 g/cm3 (9.152 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:

Dvnamic: Not determined. Kinematic: Not determined.

Solvent content:

Organic solvents: 0.0 %

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Water: 0.0 % Solids content: 84.6 %

Other information No further relevant information available.

10 Stability and reactivity

Reactivity No further relevant information available.

Chemical stability Thermal decomposition / conditions to be

avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid

No further relevant information available. No further relevant information available.

Incompatible materials: Hazardous decomposition products:

No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· Primary irritant effect:

on the skin: on the eve:

No irritant effect. No irritating effect.

Sensitization:

Sensitization possible through skin contact.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods

for preparations:

Harmful

Irritant

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

· Toxicity

Aquatic toxicity: Persistence and degradability No further relevant information available. 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 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or

sewage system.

Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

Other adverse effects No further relevant information available. **HERCUL**

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13 Disposal considerations

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach

· Uncleaned packagings: · Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper

cleaning.

· UN-Number

DOT, ADR, ADN, IMDG, IATA Void

UN proper shipping name DOT, ADR, ADN, IMDG, IATA

Void

Transport hazard class(es)

DOT. ADR. ADN. IMDG. IATA

· Class Void

Packing group

DOT. ADR. IMDG. IATA

Void No

· Environmental hazards:

Marine pollutant:

Special precautions for user Not applicable

Transport in bulk according to Annex II of MARPOL73/78 and

the IBC Code

Not applicable

· UN "Model Regulation":

Void

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

822-06-0 hexamethylene-di-isocyanate

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

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Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms Signal word

· Hazard-determining components of labeling: Hexamethylene diisocyanate, oligomers

hexamethylene-di-isocvanate · Hazard statements H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary statements P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves.

P271 Use only outdoors or in a well-ventilated area.

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P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P321 Specific treatment (see on this label). P363 Wash contaminated clothing before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of water.

P405 Store locked up.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/

international regulations.

National regulations:

· Technical instructions (air):

Class	Share in %
- 1	0.5

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

VOC

· VOC EU [%] 0.00 % · VOC USA 0.0 a/l / 0.00 lb/al · VOC CH

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: Environmental Department

Contact: Dr. Michael Kissel Date of preparation / last revision 08/03/2016 / 13

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations · Abbreviations and acronyms:

Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

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NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEI : Permissible Exposure I imit RFI : Recommended Exposure I imit Acute Tox. 4: Acute toxicity - Category 4

Skin Sens. 1: Skin sensitisation - Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· * Data compared to the previous version

altered.

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