



Trade name: **HERCULAN LY 2000 { A }**

**Reference to other sections** (Contd. of page 2)  
See Section 7 for information on safe handling.  
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**  
**Storage:**  
**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:** 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.  
Avoid contact with the eyes and skin.  
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:** Combination filter A-P2  
**Protection of hands:**  Protective gloves  
The glove material has to be impermeable and resistant to the product/ 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** (Contd. of page 3)  
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.  
**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

**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:** 201 °C (394 °F)  
**Flash point:** 252 °C (486 °F)  
**Flammability (solid, gaseous):** Not applicable.  
**Ignition temperature:** > 300 °C (> 572 °F)  
**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):** 1.14 g/cm³ (9.513 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 at 20 °C (68 °F):** 800 mPas  
**Kinematic:** Not determined.  
**Solvent content:**  
**Organic solvents:** 0.0 %

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<b>Water:</b>	0.0 %
<b>Solids content:</b>	100.0 %
<b>Other information</b>	No further relevant information available.

**10 Stability and reactivity**

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

**11 Toxicological information**

<b>Information on toxicological effects</b>	
<b>Acute toxicity:</b>	
<b>LD/LC50 values that are relevant for classification:</b>	
<b>25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (MW = 700)</b>	
Oral LD50	11400 mg/kg (rat)
Dermal LD50	>2000 mg/kg (rat)
<b>Primary irritant effect:</b>	
<b>on the skin:</b>	Irritant to skin and mucous membranes.
<b>on the eye:</b>	Irritating effect.
<b>Sensitization:</b>	Sensitization possible through skin contact.
<b>Additional toxicological information:</b>	The product shows the following dangers according to internally approved calculation methods for preparations: Irritant
<b>Carcinogenic categories</b>	
<b>IARC (International Agency for Research on Cancer)</b>	None of the ingredients is listed.
<b>NTP (National Toxicology Program)</b>	None of the ingredients is listed.
<b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>	None of the ingredients is listed.

**12 Ecological information**

<b>Toxicity</b>	
<b>Aquatic toxicity:</b>	
<b>25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (MW = 700)</b>	
Accute LC50	2 mg/L (Onchorynchus mykiss) (96 h)
	2 mg/L (leuciscus idus)
Acute EC50	1.8 mg/L (Daphnia Magna) (48h)
92/69/EEC-C.2 - EC50	11 mg/l (algae)
	1.8 mg/l (daphnia)
<b>Persistence and degradability</b>	No further relevant information available.
<b>Behavior in environmental systems:</b>	
<b>Bioaccumulative potential</b>	No further relevant information available.
<b>Mobility in soil</b>	No further relevant information available.

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<b>Additional ecological information:</b>	
<b>General notes:</b>	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.
<b>Results of PBT and vPvB assessment</b>	
<b>PBT:</b>	Not applicable.
<b>vPvB:</b>	Not applicable.
<b>Other adverse effects</b>	No further relevant information available.

**13 Disposal considerations**

<b>Waste treatment methods</b>	
<b>Recommendation:</b>	Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
<b>Uncleaned packagings:</b>	
<b>Recommendation:</b>	Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

**14 Transport information**

<b>UN-Number</b>	UN3082
<b>DOT, ADR, IMDG, IATA</b>	
<b>UN proper shipping name</b>	Environmentally hazardous substances, liquid, n.o.s.
<b>DOT</b>	3082 Environmentally hazardous substances, liquid, n.o.s. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (MW = 700), Epoxy resin)
<b>ADR</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (MW = 700), Epoxy resin), MARINE POLLUTANT
<b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (MW = 700), Epoxy resin)
<b>IATA</b>	
<b>Transport hazard class(es)</b>	
<b>DOT, IMDG, IATA</b>	
<b>Class</b>	9 Miscellaneous dangerous substances and articles
<b>Label</b>	9
<b>ADR</b>	
<b>Class</b>	9 (M6) Miscellaneous dangerous substances and articles
<b>Label</b>	9
<b>Packing group</b>	III
<b>DOT, ADR, IMDG, IATA</b>	
<b>Environmental hazards:</b>	Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (MW = 700)
<b>Marine pollutant:</b>	Yes Symbol (fish and tree)
<b>Special marking (ADR):</b>	Symbol (fish and tree)

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· <b>Special marking (IATA):</b>	Symbol (fish and tree)
· <b>Special precautions for user</b>	Warning: Miscellaneous dangerous substances and articles
· <b>Danger code (Kemler):</b>	90
· <b>EMS Number:</b>	F-A,S-F
· <b>Stowage Category</b>	A
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Remarks:</b>	Special marking with the symbol (fish and tree).
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	- Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	- Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (MW = 700), EPOXY RESIN), 9, III

**15 Regulatory information**

· <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
· <b>Sara</b>	
· <b>Section 355 (extremely hazardous substances):</b>	None of the ingredient is listed.
· <b>Section 313 (Specific toxic chemical listings):</b>	None of the ingredients is listed.
· <b>TSCA (Toxic Substances Control Act):</b>	
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (MW = 700)
55492-52-9	Epoxy resin
· <b>Proposition 65</b>	
· <b>Chemicals known to cause cancer:</b>	None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for females:</b>	None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for males:</b>	None of the ingredients is listed.
· <b>Chemicals known to cause developmental toxicity:</b>	None of the ingredients is listed.
· <b>Carcinogeny categories</b>	
· <b>EPA (Environmental Protection Agency)</b>	None of the ingredients is listed.
· <b>TLV (Threshold Limit Value established by ACGIH)</b>	None of the ingredients is listed.
· <b>MAK (German Maximum Workplace Concentration)</b>	None of the ingredients is listed.

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· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>	
None of the ingredients is listed.	
· <b>GHS label elements</b>	The product is classified and labeled according to the Globally Harmonized System (GHS).
· <b>Hazard pictograms</b>	GHS07
· <b>Signal word</b>	Warning
· <b>Hazard-determining components of labeling:</b>	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (MW = 700) Epoxy resin Hexanedioldiglycidyl ether
· <b>Hazard statements</b>	H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction.
· <b>Precautionary statements</b>	P261 Avoid breathing dust/fume/gas/mist/vapors/spray P280 Wear protective gloves. P280 Wear eye protection / face protection. P264 Wash thoroughly after handling. P272 Contaminated work clothing must not be allowed out of the workplace. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. 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. P337+P313 If eye irritation persists: Get medical advice/attention. P302+P352 IF ON SKIN: Wash with plenty of water. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· <b>National regulations:</b>	
· <b>Water hazard class:</b>	Water hazard class 2 (Self-assessment): hazardous for water.
· <b>VOC</b>	
· <b>VOC EU [%]</b>	0.00 %
· <b>VOC USA</b>	0.0 g/l / 0.00 lb/gal
· <b>VOC CH</b>	0.00 %
· <b>Chemical safety assessment:</b>	A Chemical Safety Assessment has not been carried out.

**16 Other information**

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.

· <b>Department issuing SDS:</b>	Environmental Department
· <b>Contact:</b>	Dr. Michael Kissel
· <b>Date of preparation / last revision</b>	08/02/2016 / 7
· <b>Abbreviations and acronyms:</b>	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) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent 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 PEL: Permissible Exposure Limit REL: Recommended Exposure Limit Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A Skin Sens. 1: Skin sensitisation – Category 1

· **\* Data compared to the previous version altered.**

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