

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

- **1.1 Product identifier**
- **Creation date version 1** 28.07.2014
- **Trade name** **Euro Cast 1919 Part A**
- **Article number:** P2225
- **Utilization of the substance of the formulation:** Polyurethan for manufacturing Duromeres
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application for the substance / the preparation** Polyurethan for manufacturing Duromeres
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Europol
9 Birchills Trading Estate
Emery Road, Brislington, Bristol BS4 5PF
Tel. +44 (0) 117 9715 500
-
- e-mail: sales@europoluk.com*
- **Further information obtainable from:** environment protection department
- **1.4 Emergency telephone number:**
During normal opening times (7 am - 5 pm)
phone : +44 (0) 117 9715 500

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Eye Irrit. 2 H319 Causes serious eye irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS07



GHS09

- **Signal word** Warning
- **Hazard statements**
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

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Trade name Euro Cast 1919 Part A

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Precautionary statements

- P264 Wash thoroughly after handling.
 P273 Avoid release to the environment.
 P280 Wear eye protection / face protection.
 P305+P351+P338 **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients
3.2 Mixtures

- **Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 102-60-3 EINECS: 203-041-4 Reg.nr.: 01-2119552434-41-xxxx	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol ⚠ Eye Irrit. 2, H319	10-25%
CAS: 25322-69-4 Reg.nr.: 01-2119457556-29-xxxx	Polypropylenglykol ⚠ Acute Tox. 4, H302	5-10%
CAS: 28553-12-0 EINECS: 249-079-5 Reg.nr.: 01-2119430798-28-xxxx	di-"isononyl" phthalate substance with a Community workplace exposure limit	5-10%
CAS: 38640-62-9 EINECS: 254-052-6 Reg.nr.: 01-2119565150-48-xxxx	alkylated aromatic hydrocarbon ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 1, H410	5-10%
CAS: 124-17-4 EINECS: 204-685-9	2-(2-butoxyethoxy)ethyl acetate substance with a Community workplace exposure limit	2.5-5%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures
4.1 Description of first aid measures

- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Seek medical advice

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Trade name Euro Cast 1919 Part A

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- **After swallowing:**
If swallowed, rinse mouth with water (only if the person is conscious).
Do not induce vomiting; call for medical help immediately.
A person vomiting while laying on their back should be turned onto their side.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
carbon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 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.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation / exhaustion at the workplace.
Use and open container with care.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

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· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Keep container tightly closed and dry and storage in a good ventilated room.

Storage temperature: 20 - 25 °C.

· **Information about storage in one common storage facility:**

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Store away from foodstuffs.

· **Further information about storage conditions:**

Store in dry conditions.

Protect from frost.

Protect from humidity and water.

· **Storage class: 10**

· **7.3 Denomination of Origin Made in Germany**

· **Processing information** Homogenize content before use

· **General remark** For processing instructions see data sheet

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

28553-12-0 di-"isononyl" phthalate

WEL (Great Britain) Long-term value: 5 mg/m³

124-17-4 2-(2-butoxyethoxy)ethyl acetate

AGW (Germany) Long-term value: 67 mg/m³, 10 ppm
1.5(I);DFG, Y, 11

· **DNELs**

102-60-3 1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol

Oral DNEL Long-term - systemic effects 2.5 mg/kg (General population)

Dermal DNEL Long-term - systemic effects 2.5 mg/kg (General population)

4.2 mg/kg (workers)

Inhalative DNEL Long-term - systemic effects 8.7 mg/m³ (General population)

29.4 mg/m³ (workers)

28553-12-0 di-"isononyl" phthalate

Oral DNEL Long-term - systemic effects 4.4 mg/kg bw/day (General population)

DNEL Chronic - systemic effects 4.4 mg/kg bw/d (workers)

Dermal DNEL Long-term - systemic effects 220 mg/kg bw/day (General population)

366 mg/kg bw/day (workers)

DNEL chronic - systemic effects 220 mg/kg bw/d (General population)

366 mg/kg bw/d (workers)

Inhalative DNEL Long-term - systemic effects 15.3 mg/m³ (General population)

DNEL systemic effects - short term 51.72 mg/m³ (workers)

DNEL chronic - systemic effects 15.3 mg/m³ (General population)

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		51.72 mg/m ³ (workers)
38640-62-9 alkylated aromatic hydrocarbon		
Oral	DNEL Long-term	2.1 mg/kg bw/day (General population)
Dermal	DNEL Long-term	2.1 mg/kg bw/day (General population)
		4.3 mg/kg bw/day (workers)
Inhalative	DNEL Long-term	7.4 mg/m ³ (General population)
		30 mg/m ³ (workers)
124-17-4 2-(2-butoxyethoxy)ethyl acetate		
Oral	DNEL Long-term - systemic effects	7.9 mg/kg (General population)
Dermal	DNEL Long-term - systemic effects	60 mg/kg (General population)
		100 mg/kg (workers)

· **PNECs**

102-60-3 1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol

	PNEC STP	70 mg/L (sewage plant)
	PNEC sediment	0.0193 mg/kg (marine water)
		0.193 mg/kg (freshwater- sediment)
	PNEC soil	0.0183 mg/kg (soil (Boden))
	PNEC	0.085 mg/l (freshwater)
		0.0085 mg/l (marine water)
		1.51 mg/l (intermittent releases)

28553-12-0 di-"isononyl" phthalate

	PNEC soil	30 mg/kg (soil (Boden))
	PNEC Secondary poisoning	150 mg/kg (food)

38640-62-9 alkylated aromatic hydrocarbon

Oral	PNEC	25 mg/kg (food)
	PNEC STP	0.15 mg/L (sewage plant)
	PNEC aqua	0.236 ug/L (freshwater)
		0.0236 ug/L (marine water)
	PNEC sediment	0.853 mg/kg (freshwater)
		0.085 mg/kg (marine water)
	PNEC soil	0.19 mg/kg (soil (Boden))

124-17-4 2-(2-butoxyethoxy)ethyl acetate

	PNEC STP	100 mg/L (sewage plant)
	PNEC sediment	0.8 mg/kg (freshwater- sediment)
		0.08 mg/kg (seawater - sediment)
	PNEC soil	0.29 mg/kg (soil (Boden))
	PNEC	0.108 mg/l (freshwater)
		0.0108 mg/l (marine water)
		0.6 mg/l (intermittent releases)
	PNEC Secondary poisoning	70 mg/kg (food)

· **Additional information:** The lists valid during the making were used as basis.

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- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Hand protection**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**
Natural rubber, NR
- **Eye/face protection**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Colour:** White
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** Undetermined.
- **Boiling point or initial boiling point and boiling range** 175 °C
- **Flammability** Not applicable.
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** 176 °C
- **Ignition temperature:** > 360 °C
- **Decomposition temperature:** Not determined.
- **pH** Not determined.

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· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	300 mPas
· Solubility	
· water:	Insoluble.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	2 hPa
· Density and/or relative density	
· Density at 20 °C:	1 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.

· 9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Organic solvents:	4.9 %
· VOC (EC)	23.3 g/l
· Change in condition	
· Evaporation rate	Not determined.

· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

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Trade name **Euro Cast 1919 Part A**

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid**
Moisture. Heat, open flames and other ignition sources. With contaminated pipes and tanks or corroded or rusty containers may lead to increased formation of hydrogen. Detail in section 7.
- **10.5 Incompatible materials:** water , alcohol , amine , base and acid
- **10.6 Hazardous decomposition products:** if handled accordingly no products of decomposition.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

102-60-3 1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol

Oral	LD50	2,890 mg/kg (rat) (OECD 401 Acute Oral Toxicity)
Dermal	LD50	>2,000 mg/kg (rat) (OECD 402 Acute Dermal Toxicity)

25322-69-4 Polypropylenglykol

Oral	LD50	2,000 mg/kg (rat)
Dermal	LD50	>10,000 mg/kg (rabbit)

28553-12-0 di-"isononyl" phthalate

Oral	LD50	>10,000 mg/kg (rat) (OECD 401 Acute Oral Toxicity)
Dermal	LD50	>3,160 mg/kg (rabbit)

38640-62-9 alkylated aromatic hydrocarbon

Oral	LD50	>4,000 mg/kg (rat) (OECD 401 Acute Oral Toxicity)
	NOAEL	~170 mg/kg (rat)
Dermal	LD50	>4,000 mg/kg (rat) (OECD 402 Acute Dermal Toxicity)
Inhalative	LC50/4 h	>5.6 mg/l (rat) (OECD 403 Acute Inhalation Toxicity)

124-17-4 2-(2-butoxyethoxy)ethyl acetate

Oral	LD50	11,920 mg/kg (rat) (OECD 401 Acute Oral Toxicity)
Dermal	LD50	5,400-5,700 mg/kg (rabbit) (OECD 402 Acute Dermal Toxicity)
Inhalative	LC50/4 h	>400 mg/l (rat) (OECD 403 Acute Inhalation Toxicity)

- **Skin corrosion/irritation** slightly irritating (OECD method 404), does not require labeling
- **Serious eye damage/irritation**
slightly irritant, labelling not required
(analogy conclusion)
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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Trade name **Euro Cast 1919 part A**

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· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

102-60-3 1,1',1'',1'''-ethylenedinitrotetrapropan-2-ol

LC50 (96 h)	>100 mg/l (Leuciscus)
EC50 (48 h)	>100 mg/l (Daphnia Magna)
EC50 (72 h)	>100 mg/l (Desmodesmus subspicatus)
EC20(0,5h)	>1,000 mg/l (activated sludge)

25322-69-4 Polypropylenglykol

LC50 (96 h)	>100 mg/l (Oncorhynchus mykiss)
EC50 (48 h)	>100 mg/l (Daphnia Magna)
ErC50 (72h)	>100 mg/l (Scenedesmus subspicatus)

28553-12-0 di-"isononyl" phthalate

LC0(96h)	>100 mg/l (Brachydanio rerio)
LC50 (96 h)	>100 mg/l (Brachydanio rerio)
EC50 (48 h)	>74 mg/l (D)
EC50 (24h)	>74 mg/l (Daphnia Magna)
EC50 (0,5h)	>83.9 mg/l (activated sludge)
NOEC/72h	88 mg/l (Scenedesmus subspicatus)
NOEC / 21d	≥100 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)
ErC50 (72h)	>88 mg/l (Scenedesmus subspicatus)

38640-62-9 alkylated aromatic hydrocarbon

LC0(96h)	0.5 mg/l (fish)
EC0 (48h)	0.16 mg/l (D)
LL50 (48h)	1.7 mg/L (D)
EC0 (72h)	0.15 mg/l (A)
NOEC / 21d	0.013 mg/l (D) (OECD 202 Daphnia sp. Acute Immobilisation Test)

124-17-4 2-(2-butoxyethoxy)ethyl acetate

LC50 (96 h)	50-70 mg/l (Danio Rerio) (OECD 203 Fish, Acute Toxicity Test)
EC50 (48 h)	665 mg/l (Daphnia Magna)
EC50 (72 h)	1,570 mg/l (Pseudokirchnerella Subcapitata)
EC20(0,5h)	>1,000 mg/l (activated sludge)

· **12.2 Persistence and degradability** No further relevant information available.

· **Other information:** Elimination by adsorption onto activated sludge

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

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Trade name Euro Cast 1919 Part A


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- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (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.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate waste code according to the European Waste Catalogue (EWC) should be used.
No disposal via the sewage
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.


SECTION 14: Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · 14.1 UN number or ID number | UN3082 |
| <ul style="list-style-type: none"> · ADR, IMDG, IATA | |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name | 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alkylated aromatic hydrocarbon, Naphtha (petroleum), hydrodesulfurized heavy) |
| <ul style="list-style-type: none"> · ADR | |
| <ul style="list-style-type: none"> · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alkylated aromatic hydrocarbon, Naphtha (petroleum), hydrodesulfurized heavy), MARINE POLLUTANT |
| <ul style="list-style-type: none"> · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alkylated aromatic hydrocarbon, Naphtha (petroleum), hydrodesulfurized heavy) |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) | |
| <ul style="list-style-type: none"> · ADR | |
|  | |
| <ul style="list-style-type: none"> · Class | 9 (M6) Miscellaneous dangerous substances and articles. |

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Trade name **Euro Cast 1919 Part A**

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· Label	9
· IMDG, IATA	
	
· Class	9 Miscellaneous dangerous substances and articles.
· Label	9
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
· Hazard identification number (Kemler code):	90
· EMS Number:	F-A,S-F
· Stowage Category	A
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	(-)
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALKYLATED AROMATIC HYDROCARBON, NAPHTHA (PETROLEUM), HYDRODESULFURIZED HEAVY), 9, III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms**



GHS07 GHS09

- **Signal word** Warning
 - **Hazard statements**
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
 - **Precautionary statements**
P264 Wash thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear eye protection / face protection.
P305+P351+P338 **IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**
P337+P313 **If eye irritation persists: Get medical advice/attention.**
P501 **Dispose of contents/container in accordance with local/regional/national/international regulations.**
 - **Directive 2012/18/EU**
 - **Named dangerous substances - ANNEX I** None of the ingredients is listed.
 - **Seveso category E2** Hazardous to the Aquatic Environment
 - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
 - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
 - **National regulations:**
 - **Technical instructions (air):**
- | Class | Share in % |
|-------|------------|
| NK | 0.25-1 |
- **Waterhazard class:** Water hazard class 1 (VwVwS 17.05.99): slightly hazardous for water.
 - **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

- **Relevant phrases**
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.

· **Recommended restriction of use**

The information in this safety data sheet corresponds to the best of our knowledge at the time of the revision. The information should give you clues for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The details are not transferable to other products. Insofar as the product mentioned in this safety data sheet is mixed with other materials, mixed or processed, or subjected to processing, the information in this safety data sheet, unless expressly stated otherwise, can not be transferred to the new material produced in this way.

UFI code is valid in:

Germany

· **Department issuing SDS:** environment protection department

· **Contact:** Clayton Whitta tel: +44 (0) 117 9715 500

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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

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

- **1.1 Product identifier**
- Trade name **EuroCast 1919 Part B**
- **Utilization of the substance of the formulation:** Hardener for polyols for the production of polyurethanes
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application for the substance / the preparation** Curing agent for polyols to prepare polyurethanes
- **Uses advised against** Not suitable for use in do-it-yourself applications.
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**
9i fcdc`
9 Birchills Trading Estate
Emery Road
Brislington
Bristol BS4 5PF
HY. Ž ((fSE%& -715500
- **Further information obtainable from:** environment protection department
- **1.4 Emergency telephone number:**
During normal opening times (, am - 5 pm)
phone : +4 (fSE%& -715500 ``

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

- Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carc. 2 H351 Suspected of causing cancer.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

- Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **UFI: HVNF-SFPP-Q00S-7VQM**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger
- **Hazard-determining components of labelling:**
4,4'-diphenyl-methane diisocyanate, oligomeric
- **Hazard statements**
H332 Harmful if inhaled.

(Contd. on page 2)

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- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P284 [In case of inadequate ventilation] wear respiratory protection.
- 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).
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

· Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 25686-28-6	4,4'-diphenyl-methane diisocyanate. oligomeric	50 - 75%
Reg.nr.: 01-2119457013-49	⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

- Immediately remove any clothing soiled by the product.
- In case of irregular breathing or respiratory arrest provide artificial respiration.
- Involve doctor immediately.
- 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.
- If skin irritation continues, consult a doctor.

· After eye contact:

- Protect unharmed eye.
- Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

- Do not induce vomiting; call for medical help immediately.
- Seek immediate medical advice.
- If swallowed, rinse mouth with water (only if the person is conscious).

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- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, formation of carbon monoxide, nitrogen oxide, isocyanate vapour, and traces of hydrogen cyanide is possible. Fireman have to wear self-contained breathing apparatus. Do not let enter contaminated extinguishing water into the soil, groundwater or surface waters.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid contact with eyes and skin.
Wear protective equipment. Keep unprotected persons away.
Keep people at a distance and stay on the windward side.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 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.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
The protective measures necessary when dealing with isocyanates must be observed. Avoid contact with skin and eyes and inhalation of vapors.
Open and handle receptacle with care.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Protect against electrostatic charges.
Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Keep container tightly closed and dry and storage in a good ventilated room.

Storage temperature: 15 - 25 °C.

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- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from water.
- **Further information about storage conditions:**
Protect from humidity and water.
Protect from frost.
Keep container tightly sealed.
- **Storage class:** 10
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

25686-28-6 4,4'-diphenyl-methane diisocyanate. oligomeric

MAK (Germany)	Short-term value: 0.05 mg/m ³ Long-term value: 0,05 mg/m ³
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- **Additional information:** The lists valid during the making were used as basis.

· **8.2 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.
Avoid contact with the eyes and skin.

- **Respiratory protection:**

Full-contained breathing apparatus with a gas mask. The respirators used for protection can be used with Type A filter against organic vapors, where powder or aerosol is present at least with the A / P2 filter.
In case of hypersensitivity of the respiratory tract and skin (asthma, chronic bronchitis, chronic skin disease) is inadvisable to work with the product. Symptoms in the respiratory tract can also occur several hours after overexposure ..

- **Protection of hands:**

Preventive skin protection (3-point program) required



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **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.

- **Penetration time of glove material**

Suitable materials for protective gloves, EN 374-3:

Polychloroprene - CR: thickness > = 0.5 mm, breakthrough time > = 480 min.

NBR - NBR: thickness > = 0,35 mm, Breakthrough time > = 480 min.

Butyl rubber - IIR: thickness > = 0.5 mm, breakthrough time > = 480 min.

Fluorine rubber - FKM: thickness > = 0.4 mm; breakthrough time > = 480 min.

Recommendation: Dispose of contaminated gloves ..

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Fluid
· Colour:	Yellow
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/Melting range:	41 °C
· Boiling point/Boiling range:	300 °C

· **Flash point:** 250 °C

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 400 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

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

· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· **Vapour pressure at 25 °C:** 0,0002 hPa

· **Density at 20 °C:** 1,13875 g/cm³

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Insoluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

· Dynamic at 20 °C:	80 mPas
· Kinematic:	Not determined.

· **Solvent content:**

· **Organic solvents:** 0,0 %

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

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Trade name EuroCast 1919 Part B

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Exothermic reaction with amines and alcohols; reacts with water forming CO₂, in closed containers risk of bursting owing to increase of pressure.
- **10.4 Conditions to avoid** Heat, flames and sparks.
- **10.5 Incompatible materials:**
water , alcohol , amine , base and acid
Incompatible with oxidizing agents, acids
- **10.6 Hazardous decomposition products:** Hydrogen cyanide (prussic acid)

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

- **Acute toxicity**
Harmful if inhaled.

· **LD/LC50 values relevant for classification:**

25686-28-6 4,4'-diphenyl-methane diisocyanate. oligomeric

Oral	LD50	> 5000 mg/kg (Ratte)
Dermal	LD50	>9400 mg/kg (Kaninchen) (OECD Prüfrichtlinie 402)
Inhalative	LC 50 / 1h	>2.24 mg/l (Ratte)

103-23-1 bis(2-ethylhexyl) adipate

Oral	LD50	9110 mg/kg (rat)
Dermal	LD50	8410 mg/kg (rbt)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **STOT-repeated exposure**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

25686-28-6 4,4'-diphenyl-methane diisocyanate. oligomeric

LC50 (96 h)	> 1000 mg/l (F)
	>1000 mg/l (Danio Rerio)
EC50 (72 h)	> 100 mg/l (B)
	> 1000 mg/l (D)

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(Contd. of page 6)

EC50 (24h)	>1000 mg/l (Daphnia Magna)
EC50(3h)	>100 mg/l (sludge)
103-23-1 bis(2-ethylhexyl) adipate	
LC50 (96 h)	54-150 mg/l (F)
EC50 (48 h)	> 500 mg/l (D)
EC50 (72 h)	> 500 mg/l (A)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** Elimination by adsorption onto activated sludge
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must be specially treated adhering to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Must not be disposed together with household garbage. Do not empty into drains.
In an appropriate facility or burn in an approved landfill
Dispose. All applicable local and national or regional rules.
- **European waste catalogue** 08 05 01* Isocyanatabfälle
- **Uncleaned packaging:**
- **Recommendation:**
The empty containers may not be disposed of unless the adhesive to the container walls
Been removed.
Disposal according to official regulations

SECTION 14: Transport information

· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No

(Contd. on page 8)

Trade name EuroCast 1919 Part B

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- | | |
|--|-----------------|
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labelling:**
4,4'-diphenyl-methane diisocyanate, oligomeric

- **Hazard statements**

*H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.*

- **Precautionary statements**

*P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P284 [In case of inadequate ventilation] wear respiratory protection.
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).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*

- **National regulations:**

- **Waterhazard class:** *Water hazard class 1 (VwVwS 17.05.99): slightly hazardous for water.*
- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

SECTION 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.

- **Relevant phrases**

*H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.*

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Trade name EuroCast 1919 Part B

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*H332 Harmful if inhaled.**H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.**H335 May cause respiratory irritation.**H351 Suspected of causing cancer.**H373 May cause damage to organs through prolonged or repeated exposure.*

· **Department issuing MSDS:** environment protection department

· **Abbreviations and acronyms:**

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

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2