

Safety Data Sheet

According to 1907/2006/EC, Article 31

Printing date 20.12.2023

Version number 4

Revision: 20.12.2023

ROTO CASTING RESIN - PART A

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

- **1.1 Product identifier:**
 - **Trade name:** Roto Casting Resin – Part A
 - **Utilization of the substance of the formulation:** Polyurethane resin.

- **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:** Polyol for Polyurethanes.
 - **Uses advised against:** None.

- **1.3 Details of the supplier of the safety data sheet:**
 - **Supplier:**
DWR plastics
Broadway
Newport
Shropshire
TF10 7TP
Tel: +44 (0) 7576028547
Email: info@dwrplastics.com

- **1.4 Emergency telephone number:** + 44 (0) 7576028547

SECTION 2: Hazards identification

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



GHS07

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 CLP regulation.
- **Hazard pictograms:**



GHS07

- **Signal word:** Warning
- **Hazard statements:**
H319 Causes serious eye irritation.
- **Precautionary statements:**
 - P264 Wash thoroughly after handling.
 - P280 Wear protective gloves/protective clothing/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.

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- **2.3 Other hazards:**
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterization:** Mixture.
- **Description:** Mixture of substances listed below with non-hazardous additions.

· Dangerous components:		
CAS: 102-60-3 EINECS: 203-041-4 Reg.nr.: 01-2119552434-41-xxxx	Ethylenediamine-N,N,N',N'-tetra-2-propanol ⚠ Eye Irrit. 2, H319	10-25%
CAS: 25322-69-4 Reg.nr.: 01-2119457556-29-xxxx	Polypropylene glycol ⚠ Acute Tox. 4, H302	10-25%
CAS: 28553-12-0 EINECS: 249-079-5 Reg.nr.: 01-2119430798-28-xxxx	di-"isononyl" phthalate substance with a Community workplace exposure limit	10-25%
CAS: 8002-13-9 EINECS: 232-299-0	Rape oil substance with a Community workplace exposure limit	5-10%
EC number: 918-973-3 Reg.nr.: 01-2119458871-30	Hydrocarbons, C13-C16, isoalkanes, cyclics <2% aromatics ⚠ Asp. Tox. 1, H304	1-2.5%

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:**
Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

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· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Do not induce vomiting; call for medical help immediately.

If swallowed, rinse mouth with water (only if the person is conscious).

A person vomiting while laying on their back should be turned onto their side. If symptoms persist consult doctor.

· **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.

· **Unsuitable extinguishing agents:** Water.

· **5.2 Special hazards arising from the substance or mixture:**

In case of fire, the following can be released:

Toxic fumes

Carbon monoxide (CO)

Carbon dioxide

Nitrogen oxides (NO_x)

· **5.3 Advice for firefighters:**

· **Protective equipment:** Wear self-contained respiratory protective device. Wear fully protective impervious suit.

· **Additional information:**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures:** Wear protective equipment and emergency procedures. Wear protective equipment. Keep unprotected people away. Wear protective clothing.

· **6.2 Environmental precautions:** Prevent seepage into sewage system, work pits and cellars. 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.



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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling:** Store in cool, dry place in tightly closed receptacles. Keep away from heat and direct sunlight. Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols. Take care when opening.
- **Information about fire and explosion protection:** Fumes can combine with air to form an explosive mixture. Keep ignition sources away. Do not smoke.
- **Local/Total ventilation:** Use only with adequate ventilation.
- **Advice on safe handling:** Avoid inhalation of vapour or mist. Do not swallow. Avoid contact with eyes and prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice. Take care to prevent spills, waste and minimize release to the environment.
- **Hygiene measures:** Ensure that eye flushing systems. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

- **7.2 Conditions for safe storage, including any incompatibilities:**
 - **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground. Keep container tightly closed and dry and storage in a good ventilated room. Storage temperature: 15 - 25 °C.
 - **Information about storage in one common storage facility:**
 - Store away from flammable substances.
 - Store away from oxidising agents.
 - Store away from foodstuffs.
 - **Further information about storage conditions:**
 - Protect from frost.
 - Store in dry conditions.
 - Protect from humidity and water.
 - Keep container tightly sealed.
 - **Storage class:** 10

- **7.3 Denomination of origin:** Made in Germany.
- **Processing information:** Homogenize content before use.
- **General remarks:** For processing instructions see date sheet.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters:** Contains no substances with occupational exposure limit values.

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

28553-12-0 di-"isononyl" phthalate

WEL (Great Britain)	Long-term value: 5 mg/m ³
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DNELs

102-60-3 Ethylenediamine-N,N,N',N'-tetra-2-propanol

Oral	DNEL systemic effects – long term exposure	2.5 mg/kg (General population)
Dermal	DNEL systemic effects – long term exposure	2.5 mg/kg (General population) 4.2 mg/kg (workers)
Inhalative	DNEL systemic effects – long term exposure	8.7 mg/m ³ (General population) 29.4 mg/m ³ (workers)

28553-12-0 di-"isononyl" phthalate

Oral	DNEL Long-term – systemic effects	4.4 mg/kg bw/d (General population)
Dermal	DNEL Chronic – systemic effects DNEL Long-term – systemic effects	4.4 mg/kg bw/d (Workers) 220 mg/kg bw/d (General population) 366 mg/kg bw/d (Workers)

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Dermal	DNEL Chronic – systemic effects	220 mg/kg bw/d (General population)
Inhalative	DNEL Long-term – systemic effects	366 mg/kg bw/d (Workers)
	DNEL systemic effects – short term	15.3 mg/m ³ bw/d (General population)
	DNEL chronic – systemic effects	51.72 mg/m ³ bw/d (Workers)
		15.3 mg/m ³ bw/d (General population)
		51.72 mg/m ³ bw/d (Workers)

PNECs

102-60-3 Ethylenediamine-N,N,N',N'-tetra-2-propanol

PNEC STP	70 mg/L (sewage plant)
PNEC sediment	0.0193 mg/kg (marine water)
	0.193 mg/kg (freshwater- sedimen)
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)
PNEC Secondary poisoning	150 mg/kg (Food)

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

· **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:**

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:** Not necessary if room is well-ventilated.

· **Hand protection:** Preventive skin protection (3-point program) required. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **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

· **Eye/face protection:** Tightly sealed goggles.

· **Body protection:** Protective work clothing.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties:

· General Information	
· Appearance:	
Form:	Liquid
Colour:	Whitish or Black
· Odour: Characteristic	
· Odour threshold: Not determined	
· pH-value:	
Melting point/Melting range:	Not applicable
Boiling point/Boiling range:	Not determined
· Boiling point: Not determined	
· Flammability (solid, gaseous): Non-flammable	
· Autoignition temperature: Product is not self igniting	
· Decomposition temperature: Not determined	
· Self-igniting: Not determined	
· Danger of explosion: Product does not present an explosion hazard	
· Explosion limits:	
Lower:	Not determined
Upper:	Not determined
· Flash point: Ca 100°C	
· Ignition temperature: Not determined	
· Density at 20 °C: Not determined	
· Relative density Not determined	
· Vapour density Not determined	
· Evaporation rate: Not determined	
· Solubility in / Miscibility with water: Insoluble	
· Viscosity: 160 mPas	
· Density at 20°C: 0.95 g/cm ³	
· Solvent content: Organic solvents: 8.3 % VOC (EC) 3.9 g/l	

· 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity: Not classified as a reactivity hazard.

10.2 Chemical stability: Stable.

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: Reacts with acids, alkalis and oxidising agents.

10.4 Conditions to avoid: Flames, sparks and other sources of ignition, incompatible materials. Vapours may form explosive mixtures with air.

10.5 Incompatible materials: Incompatible with oxidizing agents, acids.

10.6 Hazardous decomposition products: If handled accordingly no products of decomposition.

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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 Ethylenediamine-N,N,N',N'-tetra-2-propanol

Oral	LD50	>2,000-<5,000 mg/kg (rat) (OECD 401 Acute Oral Toxicity)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402 Acute Dermal Toxicity)

25322-69-4 Polypropylene glycol

Oral	LD50	1,000-2,000 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)

Hydrocarbons, C13-C16, isoalkanes, cyclics <2% aromatics

Oral	LD50	5,000 mg/kg (rat) (OECD 401 Acute Oral Toxicity)
Dermal	LD50	2,000 mg/kg (rabbit) (OECD 402 Acute Dermal Toxicity)
Inhalative	LC50/4 h	5 mg/l (rat) (OECD 403 Acute Inhalation Toxicity)

- **Skin corrosion/irritation:** Slightly irritating (OECD method 404), does not require labelling.
- **Serious eye damage/irritation:** Slight irritant, labelling not required.
(analogy conclusion)
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** 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.

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 Ethylenediamine-N,N,N',N'-tetra-2-propanol

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)

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25322-69-4 Polypropylene glycol

LD50 (96 h)	>100 mg/l (<i>Oncorhynchus mykiss</i>)
EC50 (48 h)	>100 mg/l (<i>Daphnia Magna</i>)
ErC0 (72 h)	>100 mg/l (<i>Scenedesmus subspicatus</i>)

28553-12-0 di-"isononyl" phthalate

LD0 (96 h)	>100 mg/l (<i>Brachydanio rerio</i>)
LD50 (96 h)	>100 mg/l (<i>Brachydanio rerio</i>)
EC50 (48 h)	>74 mg/l (D)
EC50 (24 h)	>74 mg/l (<i>Daphnia Magna</i>)
EC50 (0.5 h)	>83.9 mg/l (activated sludge)
NOEC/72h	88 mg/l (<i>Scenedesmus subspicatus</i>)
NOEC/21d	100 mg/l (<i>Daphnia Magna</i>) (OECD 202 <i>Daphnia</i> sp. Acute Immobilisation Test)
ErC50 (72 h)	>88 mg/l (<i>Scenedesmus subspicatus</i>)

- **12.2 Persistence and degradability:** No further relevant information available.
- **Other information:** Elimination by adsorption onto activated sludge.
- **12.3 Bio accumulative 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.
 - **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties:** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects:**
 - **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 of in accordance to local to the regulations pertaining to the disposal of waste.
 - **Uncleaned packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

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ROTO CASTING RESIN - PART A

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 |
| · 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:**
· Poisons Act

· Regulated explosives precursors

7664-38-2	phosphoric acid	30%
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· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

- Labelling according to Regulation (EC) No 1272/2008:**
The product is classified and labelled according to the CLP regulation.

· Hazard pictograms:



GHS07

- Signal word:** Warning.
· Hazard statements: H319 Causes serious eye irritation.
· Precautionary statements:
P264 Wash thoroughly after handling.
P280 Wear eye protection / face protection.

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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.*

- **Directive 2012/18/EU**
- **Named dangerous substances – ANNEX I:** None of the ingredients is listed.
- **National regulations:**
- **Water hazard class:** Water hazard class 2 (Self-assessment): 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.

EUH066 Repeated exposure may cause skin dryness or cracking.

· **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

Poland

Slovenia

Austria

- **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 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