

Safety data sheet
According to 1907/2006/EC, Article 31

Printing date 25.11.2017

Version number 1

Revision: 25.11.2017

Trade name: Polyurethane Impact Resistant Casting Resin Part A

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

- **1.1 Product identifier**
- **Trade name: Polyurethane Impact Resistant 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: polyurethane resin**
- **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
- **Further information obtainable from: environment protection department**
- **1.4 Emergency telephone number: + 44 (0) 117 9550448**

SECTION 2: Hazards identification

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



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Eye Irrit. 2 H319 Causes serious eye irritation.

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- **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**



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- **Signal word** Warning
- **Hazard statements**
H319 Causes serious eye irritation.
- **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash thoroughly after handling.
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.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 2)

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SECTION 3: Composition/information on ingredients

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

Dangerous components:		
CAS: 25322-69-4	Polypropylene glycol ~ Acute Tox. 4, H302	3 - 6%
CAS: 102-60-3 EINECS: 203-041-4 Reg.nr: 01-2119552434-41	1,1',1'',1'''-ethylenedinitrilotetrapropan-2-ol ~ Eye Irrit. 2, H319	1 - 15%
CAS: 25214-63-5 Reg.nr: 01-2119471485-32	Polyoxyalkylene Polyol ~ Eye Irrit. 2, H319	3 - 6%
CAS: 6846-50-0 Reg.nr: 01-2119451093-47	1-Isopropyl-2,2-dimethyltrimethylendiisobutyrat Aquatic Chronic 3, H412	3 - 6%
CAS: 64742-47-8 EC number: 918-167-1 Reg.nr: 01-2119472146-39	Distillates (petroleum), hydrotreated light ~ Flam. Liq. 3, H226; ~ Asp. Tox. 1, H304	0.15 - 1.5%
CAS: 38640-62-9 EC number: 254-052-6 Reg.nr: 01-2119565150-48	Diisopropylnaphthalene Isomers ~ Asp. Tox. 1, H304, Aquatic Chronic 1, H410	0.3 - 8%

- **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.
- **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.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **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. 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.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet temperature: 15 - 25 °C.

(Contd. on page 3)



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- **Information about storage in one common storage facility:** Do not store together with oxidising and acidic materials.
- **Further information about storage conditions:** Store in dry conditions.
- **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 firefighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
- **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** provide for best ventilation in the work space
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **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.
- **Information about storage in one common storage facility:**
Do not store together with oxidising and acidic materials.
- **Further information about storage conditions:**
Store in dry conditions.
Protect from frost.
- **Storage class:** 10
- **7.3 Specific end use(s)** No further relevant information available.
- **Additional information about design of technical facilities:** No further data; see item 7.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Workplace exposure limits:** No data available.

(Contd. on page 4)

Safety data sheet

According to 1907/2006/EC, Article 31

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Version number 1

Revision: 25.11.2017

Trade name: Polyurethane Impact Resistant Casting Resin Part A

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection: Gas/vapour filter type A: organic vapours (EN141) respirator in case of insufficient ventilation.

· Protection of hands:

Preventive skin protection (3-point program) required. 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 cannot 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 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: White

· Odour: Characteristic

· Odour threshold: Not determined

· pH-value: Not determined

· Change in condition

Melting point/Melting range: Not determined

Boiling point/Boiling range: 175 °C

· Flash point: 176 °C

· Flammability (solid, gaseous): Not applicable

· Ignition temperature: 360 °C

· Decomposition temperature: Not determined

· Self-igniting: Product is not self-igniting

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

· Explosion limits:

Lower: Not determined

Upper: Not determined

(Contd. on page 5)



Safety data sheet
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· Vapour pressure at 20 °C:	2 hPa
· Density at 20 °C:	1-1.02 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic at 20 °C:	350 mPas
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	3%
VOC (EC)	30g/l

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

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **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** No further relevant information available.
- **10.5 Incompatible materials:** water , alcohol , amine , base and acid
- **10.6 Hazardous decomposition products:** Flammable gases/vapours Carbon monoxide and carbon dioxide Nitrogen oxides (NOx)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritation feasible
- **Serious eye damage/irritation** Causes eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the lastest version: Irritant
- **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.

(Contd. on page 6)



Safety data sheet
According to 1907/2006/EC, Article 31

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SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.
- **General notes:**
Water hazard class 1 (Self-assessment): Slightly 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.
- **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**
Dispose in accordance to applicable local and national or regional rules.
- **Recommendation European waste catalogue 20 01 27*** paint, inks, adhesives and resins containing hazardous substances
- **Uncleaned packaging:**
- **Recommendation:**
- Disposal according to official regulations

SECTION 14: Transport information

- | | |
|--|-----------------|
| · 14.1 UN-Number | |
| · ADR, ADN, IMDG, IATA | Void |
| <hr/> | |
| · 14.2 UN proper shipping name | |
| · ADR, ADN, IMDG, IATA | Void |
| <hr/> | |
| · 14.3 Transport hazard class(es) | |
| · ADR, ADN, IMDG, IATA | |
| · Class | Void |
| <hr/> | |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | Void |
| <hr/> | |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| <hr/> | |
| · 14.6 Special precautions for user | Not applicable. |
| <hr/> | |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| <hr/> | |
| · UN "Model Regulation": | Void |

(Contd. on page 7)

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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



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- **Signal word** Warning
- **Hazard statements**
H319 Causes serious eye irritation.
- **Precautionary statements**
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash thoroughly after handling.
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:**
- **Technical instructions (air):**

Class	Share in %
NK	1.5-3

- **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**
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.
- **Department issuing MSDS:** environment protection department

(Contd. on page 8)



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· 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) VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent LD50:

Lethal dose, 50 percent

PBT: Persistent, Bio accumulative and Toxic vPvB: very Persistent and very Bio accumulative

Flam. Liq. 3: Flammable liquids, Hazard Category 3 Acute

Tox. 4: Acute toxicity, Hazard Category 4

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

Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3