

Safety Data Sheet

According to 1907/2006/EC, Article 31

Printing date 20.10.2018

Version number 1

Revision: 20.10.2018

POLYURETHANE FAST CAST RESIN WHITE PART B

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

· 1.1 Product identifier

- **Trade name:** Polyurethane Fast Cast Resin White Part B
- **Utilization of the substance of the formulation:** Casting material
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application for the substance / the preparation:** Moulding & Casting
- **Uses advised against:** Contacting materials contacting water

· 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@dwrlastics.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**



GHS08 health hazard

Acute Tox. 4 H332 Harmful if inhaled.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

Carc. 2 H351 Suspected of causing cancer,

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure. Route of exposure inhalative.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

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**



GHS07 GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labelling:** *diphenylmethane-4,4'-di-isocyanate*

- **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. Route of exposure inhalative.*

- **Precautionary statements:**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.*
- P285 In case of inadequate ventilation wear respiratory protection.*
- P280 Wear protective gloves/protective clothing/eye protection/face protection.*
- P264 Wash thoroughly after handling.*
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.*
- 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.*

- **Additional Information:**

- EUH204 Contains isocyanates. May produce an allergic reaction.*

SECTION 3: Composition/information on ingredients

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

- **Dangerous components:**

CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47	<i>Diphenylmethane-4,4'-di-isocyanate</i> <i>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</i>	50-100%
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- **Additional information:** *For the wording of the listed risk phrases refer to section 16.*

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SECTION 4: First Aid Measures

4.1 Description of first aid measures

- **General Information:** Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident.
- **Eye Contact:** Flush eyes with plenty of water. If irritation persists, seek medical attention.
- **Skin Contact:** Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. If irritation persists, seek medical attention.
- **If Inhaled:** Remove to fresh air. Get medical attention in case of complaints. Where massive quantities of product have been inhaled in aerosol or concentrated vapour forms : remove patient from affected area. transfer to hospital (to an intensive care unit if necessary) by medically equipped ambulance. While awaiting the arrival of medical help, assist the patient's breathing if this is indicated. Clinical and radiographic monitoring will be required over a prolonged period, since delayed pulmonary oedema may occur.
- **Ingestion:** Rinse mouth thoroughly with water and call for medical help immediately. Do not induce vomiting unless instructed by a physician.
- **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.
- **Unsuitable extinguishing agents:** None known.
- **5.2 Special hazards arising from the substance or mixture**
- **Specific hazards during firefighting:** Exposure to combustion products may be a hazard to health.
- **Hazardous combustion products:** In case of fire, the following can be released: Carbon monoxide, nitrogen oxides and Hydrogen cyanide.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device. Wear fully protective impervious suit.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

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- **6.2 Environmental precautions:** Discharge into the environment must be avoided. Do not allow to enter sewers/ surface or ground water. Prevent further leakage or spillage if safe to do so.
- **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**
- **Technical measures:** See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- **Local/Total ventilation:** Ensure good ventilation/exhaustion at the workplace. Inform personnel of risks associated with the product, the precautions to be taken and the procedures to follow where an accident occurs. Avoid exposure to the material of persons having suffered from chronic respiratory affections (especially asthmatic and bronchitis persons) and those having an isocyanate allergy.
- **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:** Keep container tightly closed and dry and storage in a good ventilated room. Keep away from water and humidity. Storage temperature: 15 - 25 °C.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Store in dry conditions. Protect from frost.
- **7.3 Specific end use(s):** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters:**

Ingredients with limit values that require monitoring at the workplace:

101-68-8 diphenylmethane-4,4'-di-isocyanate

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as – NCO
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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:** The usual precautionary measures are to be adhered to when handling chemicals. Immediately remove soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin

· **Eye protection:**



Safety glasses.

· **Protection of hands:**



Chemical-resistant gloves.

· **Body protection:** Protective work clothing. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

· **Respiratory protection:** Use suitable protective device in case of insufficient ventilation. Fresh air mask or short term filter device.



Filter A/P2

SECTION 9: Physical and chemical properties

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

· General Information	
· Appearance:	
Form:	Liquid
Colour:	Amber coloured
· Odour:	Characteristic
· Odour threshold:	Not determined
· pH-value:	
Melting point/Melting range:	Not applicable
Boiling point/Boiling range:	Not determined
· Flash point:	>200°C
· Flammability (solid, gaseous):	Non-flammable
· Ignition temperature:	>500°C
· Decomposition temperature:	Not determined
· Self-igniting:	Not Self-igniting
· Danger of explosion:	Does not present an explosion hazard

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· Explosion limits:	
Lower:	Not applicable
Upper:	Not applicable
· Vapour pressure: < 0.0009 Pa	
· Density at 20 °C:	
· Relative density	1.1 g/cm ³ (ISO 1675:1985)
· Vapour density	Not determined
· Evaporation rate Not determined	
· Solubility in / Miscibility with water: Insoluble	
· Viscosity: 62 mPa.s	
· Solvent content:	
Organic solvents:	None
VOC (EC)	None

· **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 Violent reactions with -NH_x, -OH and -SH- groups.
In the presence of water or humidity gas is produced (CO₂) and/or uncontrolled polymerization,

10.4 Conditions to avoid: Flames, sparks and other sources of ignition.

10.5 Incompatible materials: Strong oxidizing agents.

10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity**

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

101-68-8 diphenylmethane-4,4'-di-isocyanate

Oral	LD50	31600 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)
Inhalative	LC50/1h	172-187 mg/l (rat)

· **Primary irritant effect:**

· **Skin corrosion/irritation:** Causes skin irritation.

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- **Serious eye damage/irritation:** Causes serious eye irritation.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:**
May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
- **Sensitisation:** May cause sensitisation by inhalation and skin contact.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**
Tumors of the lung were observed on animals of laboratory exposed to the MDI in the form of respirable aerosol
- **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. Route of exposure: Inhalative.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:	
101-68-8 diphenylmethane-4,4'-di-isocyanate	
EC50 (24h)	>1000 mg/L (daphnia)
EC50 (3h)	>100 mg/L (bacteria)
LC50 (96h)	>1000 mg/L (fish)

- **12.2 Persistence and degradability:** No further relevant information available.
- **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 Other adverse effects:** No further relevant information available.

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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.

SECTION 14: Transport information

- | | |
|---|-----------------|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | Void |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: | No |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| <ul style="list-style-type: none"> · 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.
- **Water hazard class:** Water hazard class 1 (Self-assessment): Slightly hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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.

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. Route of exposure: Inhalative.

R20 Harmful by inhalation.

R36/37/38 Irritating to eyes, respiratory system and skin.

R40 Limited evidence of a carcinogenic effect.

R42/43 May cause sensitisation by inhalation and skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

· **Department issuing MSDS: -**

· **Abbreviations and acronyms:**

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

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