

SAFETY DATA SHEET

Polyurethane Fast Cast Part B



Polyurethane Fast Cast - Standard

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product name: Polyurethane Fast Cast - Standard
Company: TOMPS Ltd
220 New Road
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2 HAZARDS IDENTIFICATION

Hazard description:

Xn Harmful

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 20 Harmful by inhalation.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 42/43 May cause sensitisation by inhalation and skin contact.

Contains isocyanates. See information supplied by the manufacturer

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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3 . COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 101-68-8

EINECS: 202-966-0

4,4'-methylenediphenyl diisocyanate

Xn, Xi; R 20-36/37/38-42/43

50-100%

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

4. 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.

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.

After eye contact:

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

After swallowing: If symptoms persist consult doctor.

Information for doctor:

The product irritates the respiratory tract and is a potential sensor for sensitization of skin and respiratory tract. The treatment of the acute irritation or bronchial constriction is primarily symptomatic. Depending on extent of the exposition and disturbances a longer medical care can be necessary.

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5. FIRE FIGHTING MEASURES

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fire with alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards caused by the substance, its products of combustion or resulting gases:

Formation of toxic gases is possible during heating or in case of fire.

Carbon monoxide (CO)

Nitrogen oxides (NO_x)

Hydrogen cyanide (HCN)

(Traces)

Protective equipment: Mouth respiratory protective device.

Additional information

In case of flame spread pressure build-up, bursting danger. Containers should be cooled with water and removed from danger zone.

6. ACCIDENTAL RELEASE MEASURES

Person-related safety precautions:

Ensure adequate ventilation

Wear protective clothing.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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Additional information:

After approx. 1 hour to be filled in suitable barrels; the barrels should not be closed (liberation of CO₂), but only covered. They should be left outside for 7-14 days, then the containers can be disposed according to official regulations.

7. HANDLING AND STORAGE

Handling:

Information for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection: No special measures required.

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions:

The material tends to crystallize at a temperature below 20°C. By warming up to 40-50°C for several hours this effect can be compensated. The material can be melted several times without quality reduction.

Protect from humidity and water.

Keep container tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

Ingredients with limit values that require monitoring at the workplace:

101-68-8 4,4'-methylenediphenyl diisocyanate (50-100%)

WEL () Short-term value: 0.07 mg/m³

Long-term value: 0.02 mg/m³

Sen; as -NCO

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

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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.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves

For the permanent contact gloves made of Nitrilkautschuk with a layer thickness of at least 0.33 mm are suitable. The penetration time of this glove material is 480 minutes.

The glove material has to be according the specifications of EU-guideline 89/686/EWG and the resulting norm EN374, for example KCL Camatril,0731. The above mentioned penetration times are based on laboratory measurements of KCL according to EN 374.

This recommendation is only valid for the product, which is delivered from us and only for the intended mentioned application. Regarding dissolution or mixing with other substances please contact suppliers of CE-approved gloves. (For example KCL GmbH, D-36124 Eichenzell, internet: www.kcl.de)

Material of gloves

Rubber gloves

PVC gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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Eye protection:



Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form: Fluid

Colour: Colourless

Odour: Characteristic

Change in condition

Melting point/Melting range: 15°C

Boiling point/Boiling range: > 230°C (DIN 53171)

Flash point: 141°C (c.c.)

Ignition temperature: 450°C (DIN 51794)

Self-igniting: Product is not selfigniting.

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

Density at 20°C: 1.143 g/cm³ (ISO 2811)

Solubility in / Miscibility with

water: Not miscible or difficult to mix.

pH-value at 20°C: < 7 (ISO 8975)

Viscosity:

Dynamic at 20°C: 35 mPas (ISO 9371)

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10. STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Materials to be avoided:

Avoid contact with water, amines, alcohol, vapour, glycols, watery mixtures.

Dangerous reactions

Exothermic reaction with amines and alcohols; with water CO₂-development, in closed container developing of pressure, bursting danger.

Dangerous decomposition products: No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

LD/LC50 values relevant for classification:

101-68-8 4,4'-methylenediphenyl diisocyanate

Oral LD50 2200 mg/kg (mouse)

Primary irritant effect:

- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.

Sensitization:

Sensitization possible through inhalation.

Sensitization possible through skin contact.

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 latest version:

Harmful

Irritant

Sensitisation May cause sensitisation by inhalation and skin contact.

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12. 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.

13. DISPOSAL CONSIDERATIONS

Product: Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Waste disposal key:

The Waste-Key-Numbers have to be given from the waste-producer depending on the respective trade. Therefore no information can be stated from the manufacturer.

Uncleaned packaging:

· Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

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14. TRANSPORT INFORMATION

Land transport ADR/RID (cross-border)

ADR/RID class: -

Maritime transport IMDG:

IMDG Class: 9

UN Number: 3082

Label 9

Packaging group: III

EMS Number: F-A,S-F

Marine pollutant: Yes

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Diisopropylnaphtalin-Isomere)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 9

UN/ID Number: 3082

Label 9

Packaging group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Diisopropylnaphtalin-Isomere)

15. REGULATORY INFORMATION

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Code letter and hazard designation of product:

Xn Harmful

Hazard-determining components of labelling:

4,4'-methylenediphenyl diisocyanate

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Risk phrases:

- 20 Harmful by inhalation.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 42/43 May cause sensitisation by inhalation and skin contact.

Safety phrases:

- 23 Do not breathe fumes/aerosol.
- 24 Avoid contact with skin.
- 37 Wear suitable gloves.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- 60 This material and its container must be disposed of as hazardous waste.

Special labelling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer

National regulations:

Technical instructions (air):

Class Share in % | 63.5

Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

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 R-phrases

- 20 Harmful by inhalation

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