Printing date 01/07/2020 Version number 20 Revision: 02.04.2019

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

- · Creation date version 1 05.02.2003
- · 1.1 Product identifier
- · Trade name Easicast Part B
- · Utilization of the substance of the formulation: Hardener for Polyole
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
 For use in the do-it-yourself section is a further information available, see "Fact Sheet for resellers".
- · 1.3 Details of the supplier of the safety data sheet

Special Plasters Unit Benson Road Hockley Birmingham B18 5TD

- · Further information obtainable from: environment protection department
- · 1.4 Emergency telephone number:

During normal opening times (8am - 5pm)

· phone: 0121 515 1555

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.

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
- · 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: oligomeres MDI
- · Hazard statements

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

(Contd. on page 2)

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(Contd. of page 1)

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

H317 May cause an allergic skin reaction. 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.
P280 Wear protective gloves / eye protection / face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· 2.3 Other hazards

Persons with hypersensitivity of the airways (eg asthma, chronic bronchitis) may, with not handle the product. Symptoms in the respiratory tract can also still some hours occur after overexposure. Dust, vapors and aerosols are the primary threat to the Respiratory tract.

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: consisting of the following components.

· Dangerous components:		
	oligomeres MDI	50-75%
NLP: 300-079-0 Reg.nr.: 01-2119457024-46-xxxx	Resp. Sens. 1, H334; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1,	
3	H317; STOT SE 3, H335	
CAS: 108-32-7	propylene carbonate	10-25%
EINECS: 203-572-1	(t) Eye Irrit. 2, H319	
Reg.nr.: 01-2119537232-48-xxxx	•	

[·] 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:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Immediately remove any clothing soiled by the product.

· 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:

In contact with the skin preferably with cleaners based

Polyethylene wash or clean with plenty of hot water and soap. In reactions of

Skin doctor immediately.

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 symptoms persist consult doctor.

· 4.2 Most important symptoms and effects, both acute and delayed

The product is irritating to the respiratory tract and may trigger skin and

Respiratory sensitization. Treatment of acute irritation or bronchial

is primarily symptomatic. Depending on the degree of exposure and the

Complaints may be necessary long-term medical care.

· 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.

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, 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:

Wear fully protective suit.

Wear self-contained respiratory protective device.

 $\cdot \textit{Additional information}$

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

Protective equipment (see section 8). adequate

Provide ventilation. Keep unnecessary people away.

Wear protective clothing.

Wear protective equipment. Keep unprotected persons away.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Remove mechanically, with residual wet, absorbent material (eg sawdust, chemical binder based on Calcium silicate hydrate, sand). After approx 1 hour transfer to waste container and do not

seal (evolution of CO2). Keep damp in a safe ventilated area for several Leave days.

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

At workplaces, or plant parts on which isocyanate aerosols and / or vapors in

higher concentrations can occur (eg, pressure relief, mold venting,

Cleaning mixing heads with compressed air) must be replaced by air suction exceeding the

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occupational exposure limits to be prevented. The air should be of the people

carried away. The effectiveness of the equipment must be checked periodically.

Noted in Chapter 8 exposure limits to be monitored.

The personal protective measures described in Chapter 8 are observed. contact avoid with skin and eyes and inhalation of vapors necessarily.

Keep away from foodstuffs, drinks and tobacco. Before breaks and at end of work

Wash and apply skin cream. Store work clothes separately. contaminated,

Take off immediately all contaminated clothing.

provide for best ventilation in the work space

Prevent formation of aerosols.

Take care by opening

- · Information about fire and explosion protection: 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: 20 - 25 °C.

· Information about storage in one common storage facility:

Store away from water.

Store away from foodstuffs.

- · Further information about storage conditions: Keep container tightly sealed.
- · Storage class: 10
- \cdot 7.3 *Specific end use(s) No further relevant information available.*

SECTION 8: Exposure controls/personal protection

- $\cdot \textbf{\textit{Additional information about design of technical facilities:}} \ \textit{No further data; see item 7.}$
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Oral	DNEL systemic effects - short term	20 mg/kg bw/day (General population)
Dermal	DNEL Acute systemic effects - short term	50 mg/kg bw/day (workers)
	DNEL Acute local effects - short term	28.7 mg/cm² (workers)
	DNEL systemic effects - short term	25 mg/kg bw/day (General population)
	DNEL local effects - short term	17.2 mg/cm² (General population)
Inhalative	DNEL Acute systemic effects - short term	0.1 mg/m³ (workers)
	DNEL Acute systemic effects - long term	$0.05 \text{ mg/m}^3 \text{ (workers)}$
	DNEL Acute local effects - short term	0.1 mg/m³ (workers)
	DNEL local effects - long term exposure	0.025 mg/m³ (General population)
		$0.05 \text{ mg/m}^3 \text{ (workers)}$
	DNEL Long-term - systemic effects	0.025 mg/m³ (General population)
	DNEL local effect - short term	0.05 mg/m³ (General population)
	DNEL systemic effects - short term	0.05 mg/m³ (General population)
PNECs		

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PNEC >1 mg/l (freshwater) >0.1 mg/l (marine water) >1 mg/l (sewage plant)

- · 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:

Unless the exposure levels below the established exposure limits remain is no respiratory protection is required. Where exposures exceed the established exposure limits, respiratory protection to the material and the degree of exposure is recommended accordingly.

A respiratory protection unit offers the same eye and face protection.

The cutting, grinding or sanding of parts after curing can result in respirable dust. Wearing appropriate for this dust respirators may be necessary.

In inadequately ventilated places and during spraying respirator

 $necessary. \ Recommended\ to\ be\ fresh-air\ mask\ or\ filter\ combination\ for\ short-term\ work$

A2-P2

· Protection of hands:



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. 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

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.

· Eye protection:

Face protection



Tightly sealed goggles

· Body protection: Protective work clothing

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(Contd. of page 5)

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information

· Appearance:

Form: Fluid
Colour: Light brown
Odour: Characteristic
Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/freezing point: 41 °C

Initial boiling point and boiling range: > 300 °C (bei 1013 hPa)

• Flash point: $> 200 \, ^{\circ}C$

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 400 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

• Explosive properties: 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:
 Relative density
 Vapour density
 Evaporation rate
 1,2 g/cm³
 Not determined.
 Not determined.

· Solubility in / Miscibility with

water: Insoluble.

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

· Viscosity:

Dynamic at 20 °C: 100 mPas
Kinematic: Not determined.

· Solvent content:

 Organic solvents:
 0,0 %

 VOC (EC)
 0.0 g/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: > 200 °C polymerisation, CO 2 separation.
- · 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 No further relevant information available.
- · 10.5 Incompatible materials: water, alcohol, amine, base and acid

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· 10.6 Hazardous decomposition products: At the air > 300 °C: acrolein

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SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity

Harmful if inhaled.

· LD/LC50 values relevant for classification:

Test atmosphere: dust / mist

Method: OECD Test Guideline 403

Toxicological studies of a comparable product. The fabric was in a

Form (ie, special particle size distribution) tested which differ from the forms, as

marketed and used in all probability, is different. Therefore, a modified classification of acute inhalation toxicity justified.

32055-14-4 oligomeres MDI		
Oral	LD50	10,000 mg/kg (Ratte)
Dermal	LD50	9,400 mg/kg (Kaninchen)
Inhalative	LC50/4 h	0.31 mg/l (Ratte)

- · 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 (carcinogenity, mutagenicity and toxicity for reproduction)
- · 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

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:

32055-14-4 oligomeres MDI

LC50 (96 h) >1,000 mg/l (Danio Rerio) (OECD- Prüfrichtlinie 203)
EC50 (24h) >1,000 mg/l (Daphnia Magna) (OECD Prüfrichtlinie 202)
EC50(3h) >100 mg/l (activated sludge) (OECD Prüfrichtlinie 209)

- · 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.

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Trade name Easycast Part B

(Contd. of page 7)

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

- · Uncleaned packaging:
- · Recommendation:

Packaging must be emptied directly after the last product removal (tear drops, powder rest, scraped carefully). After neutralization of adhering to the walls of residues are product and labeling of hazardous substances to devalue. These packages can packaging-specifically to access points to the existing collection systems chemical industry will be given for recycling. Containers must be recycled in accordance with national legislation and environmental regulations occur.

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	No dangerous cargo.
	Avoid temperatures below $0 ^{\circ}$ C. Heat above +50 $^{\circ}$ C.
	Protect from moisture.
	Keep away from food, stimulants, acids and alkalis
14.7 Transport in bulk according to Ann	ex 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.

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Trade name Easic

Easicast Part B

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· Hazard pictograms



GHS07 GHS08

- · Signal word Danger
- · Hazard-determining components of labelling:

oligomeres MDI

· 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. 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.
 P280 Wear protective gloves / eye protection / face protection.
 P284 [In case of inadequate ventilation] wear respiratory protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · 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.

H332 Harmful if inhaled.

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

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

- · Department issuing SDS: environment protection department
- · Contact: Herr Ottensmann Tel. +49 (0)2056-25863-7
- · 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)

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

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Trade name Easicast Part B

IMDG: International Maritime Code for Dangerous Goods

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 (REACH) PNEC: Predicted No-Effect Concentration (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

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.

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-GB