

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

- Product identifier
- Trade name **LasilCast 7, PN1515, 30, 11 component B**
- Utilization of the substance of the formulation: Hardener for polyols for the production of polyurethanes
- Relevant identified uses of the substance or mixture and uses advised against
- Sector of Use SU12 Manufacture of plastics products, including compounding and conversion
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
ALTROPOL KUNSTSTOFF GmbH
Rudolf-Diesel-Str 9 - 13
D-23617 Stockelsdorf
Tel. +49 (0)451-49960-0
Fax. +49 (0)451-49960-20
e-mail: info@altropol.de
- Further information obtainable from: environment protection department
- Emergency telephone number:
During normal opening times (7 am - 5 pm)
phone : +49 (0)451-49960-0 or +49 (0)176-10232577

2 Hazards identification

- 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.
- Carc. 2 H351 Suspected of causing cancer.
- 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.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

- R20-40-48/20: Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.



Xn; Sensitising

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



Xi; Irritant

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


- 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.

(Contd. on page 2)

Trade name **LasilCast 7, PN1515, 30, 11 component B**




(Contd. of page 1)

- Label elements
- 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'-Diphenyl-Methan-Diisocyanat.oligomere
- Risk phrases:
 - 20 Harmful by inhalation.
 - 36/37/38 Irritating to eyes, respiratory system and skin.
 - 40 Limited evidence of a carcinogenic effect.
 - 42/43 May cause sensitisation by inhalation and skin contact.
 - 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- Safety phrases:
 - 9 Keep container in a well-ventilated place.
 - 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
 - 24 Avoid contact with skin.
 - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - 36/37 Wear suitable protective clothing and 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.
- Other hazards
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.

3 Composition/information on ingredients

- Chemical characterization: Substance
- CAS No. Description
9016-87-9 diphenylmethanediisocyanate, isomers and homologues
- Identification number(s) 9016-87-9
- Chemical characterization: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

| | | |
|------------|---|----------|
| 25686-28-6 | 4,4'-Diphenyl-Methan-Diisocyanat.oligomere  Carc. Cat. 3  | 90-100% |
| 38640-62-9 | alkylated aromatic hydrocarbon R53  | 2.5 - 5% |

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

GB
(Contd. on page 3)

Printing date 22.11.2012

Version number 12

Revision: 22.11.2012

Trade name **LasilCast 7, PN1515, 30, 11 component B**

(Contd. of page 2)

4 First aid measures

- Description of first aid measures
- General information:
Involve doctor immediately.
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:
Do not induce vomiting; call for medical help immediately.
Seek immediate medical advice.
- Information for doctor:
· Most important symptoms and effects, both acute and delayed No further relevant information available.

- Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents: Extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water
- 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.
- Advice for firefighters
- Protective equipment:
Wear fully protective suit.
Mount respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 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.
Ensure adequate ventilation.
- 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.

7 Handling and storage

- Handling:
- Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

(Contd. on page 4)

Trade name **LasilCast 7, PN1515, 30, 11 component B**

(Contd. of page 3)

- Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.
- 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:
 - Store away from foodstuffs.
 - Store away from water.
- Further information about storage conditions:
 - Protect from frost.
 - Keep container tightly sealed.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

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

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

| |
|---|
| 25686-28-6 4,4'-Diphenyl-Methan-Diisocyanat.oligomere |
|---|

| | |
|---------------|--|
| MAK (Germany) | Short-term value: 0.05 mg/m ³ |
| | Long-term value: 0.05 mg/m ³ |

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



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

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.

- Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 5)

Printing date 22.11.2012

Version number 12

Revision: 22.11.2012

Trade name **LasilCast 7, PN1515, 30, 11 component B**

(Contd. of page 4)

- For the permanent contact gloves made of the following materials are suitable:
Butyl rubber, BR
Natural rubber, NR
- Eye protection:



Tightly sealed goggles

- Body protection: Protective work clothing

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:

| | |
|---------|----------------|
| Form: | Fluid |
| Colour: | Yellow |
| Odour: | Characteristic |
- Change in condition

| | |
|------------------------------|-------|
| Melting point/Melting range: | 41°C |
| Boiling point/Boiling range: | 300°C |
- Flash point: 250°C
- Ignition temperature: 400°C
- Danger of explosion: Product does not present an explosion hazard.
- Vapour pressure at 25°C: 0.0002 hPa
- Density at 20°C: 1.23 g/cm³
- Solubility in / Miscibility with water: reacts with water forming CO₂, risk of bursting
- Viscosity:

| | |
|------------------|--------------|
| Dynamic at 25°C: | ca. 100 mPas |
| VOC (EC) | 0.00 % |
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 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.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: Evitar o contacto com agentes oxidantes fortes em contato
- Hazardous decomposition products: Hydrogen cyanide (prussic acid)

GB

(Contd. on page 6)

Printing date 22.11.2012

Version number 12

Revision: 22.11.2012

Trade name **LasilCast 7, PN1515, 30, 11 component B**

(Contd. of page 5)

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

- LD/LC50 values relevant for classification:

25686-28-6 4,4'-Diphenyl-Methan-Diisocyanat.oligomere

Oral LD50 > 5000 mg/kg (Ratte)

- 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.

12 Ecological information

- Toxicity

- Aquatic toxicity:

25686-28-6 4,4'-Diphenyl-Methan-Diisocyanat.oligomere

EC50 (72 h) > 100 mg/l (B)

> 1000 mg/l (D)

LC50 (96 h) > 1000 mg/l (F)

- Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- Bioaccumulative potential No further relevant information available.
- 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.
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation
 - Must be specially treated adhering to official regulations.
 - Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
 - ADR, ADN, IMDG, IATA
- Void

- UN proper shipping name
 - ADR, ADN, IMDG, IATA
- Void

(Contd. on page 7)

Printing date 22.11.2012

Version number 12

Revision: 22.11.2012

Trade name **LasilCast 7, PN1515, 30, 11 component B**

(Contd. of page 6)

| | |
|---|-----------------|
| · Transport hazard class(es) | |
| · ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · Packing group | |
| · ADR, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · UN "Model Regulation": | - |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- 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'-Diphenyl-Methan-Diisocyanat.oligomere
- Risk phrases:
 - 20 Harmful by inhalation.
 - 36/37/38 Irritating to eyes, respiratory system and skin.
 - 40 Limited evidence of a carcinogenic effect.
 - 42/43 May cause sensitisation by inhalation and skin contact.
 - 48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- Safety phrases:
 - 9 Keep container in a well-ventilated place.
 - 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
 - 24 Avoid contact with skin.
 - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - 36/37 Wear suitable protective clothing and 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.
- National regulations:
- Waterhazard class: Water hazard class 1 (VwVwS 17.05.99): slightly hazardous for water.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.

(Contd. on page 8)

Printing date 22.11.2012

Version number 12

Revision: 22.11.2012

Trade name **LasilCast 7, PN1515, 30, 11 component B**

(Contd. of page 7)

· Relevant phrases

- H304 May be fatal if swallowed and enters airways.
- 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.
- H413 May cause long lasting harmful effects to aquatic life.
- 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.
- R53 May cause long-term adverse effects in the aquatic environment.

· Department issuing MSDS: environment protection department

· Contact:

Herr Karasmann Tel. +49 (0)451-49960-0
Herr Grützmacher Tel. +49 (0)2056-25863-6

· 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 Organization
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 Harmonized System of Classification and Labelling of Chemicals
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

· * Data compared to the previous version altered.

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