

Page 1 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

**Liquifast 9000**

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses of the substance or mixture:

Sealant

##### **Uses advised against:**

No information available at present.

#### 1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH  
 Jerg-Wieland-Str. 4  
 89081 Ulm-Lehr  
 Tel.: (+49) 0731-1420-0  
 Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

##### **Emergency information services / official advisory body:**

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##### **Telephone number of the company in case of emergencies:**

+49 (0) 700 / 24 112 112 (LMR)  
 +1 872 5888271 (LMR)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### **Classification according to Regulation (EC) 1272/2008 (CLP)**

| Hazard class | Hazard category | Hazard statement                                                                |
|--------------|-----------------|---------------------------------------------------------------------------------|
| Resp. Sens.  | 1               | H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled. |

#### 2.2 Label elements

##### **Labeling according to Regulation (EC) 1272/2008 (CLP)**



Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 01.11.2021 / 0014  
Replacing version dated / version: 10.03.2021 / 0013  
Valid from: 01.11.2021  
PDF print date: 01.11.2021  
Liquifast 9000

## Danger

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

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P261-Avoid breathing vapours or spray. P284-Wear respiratory protection.

P304+P340-IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342+P311-If experiencing respiratory symptoms: Call a POISON CENTER / doctor.

P501-Dispose of contents / container to an approved waste disposal facility.

EUH204-Contains isocyanates. May produce an allergic reaction.

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

As from 24 August 2023 adequate training is required before industrial or professional use.

4,4'-methylenediphenyl diisocyanate

## 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

n.a.

### 3.2 Mixtures

| 4,4'-methylenediphenyl diisocyanate                                    |                                                                                                                                                                     |
|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Registration number (REACH)                                            | ---                                                                                                                                                                 |
| Index                                                                  | 615-005-00-9                                                                                                                                                        |
| EINECS, ELINCS, NLP, REACH-IT List-No.                                 | 202-966-0                                                                                                                                                           |
| CAS                                                                    | 101-68-8                                                                                                                                                            |
| content %                                                              | 0,1-<1                                                                                                                                                              |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Acute Tox. 4, H332<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Resp. Sens. 1, H334<br>Skin Sens. 1, H317<br>Carc. 2, H351<br>STOT SE 3, H335<br>STOT RE 2, H373 |
| Specific Concentration Limits and ATE                                  | Skin Irrit. 2, H315: >=5 %<br>Eye Irrit. 2, H319: >=5 %<br>Resp. Sens. 1, H334: >=0,1 %<br>STOT SE 3, H335: >=5 %                                                   |

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

First-aiders should ensure they are protected!

Page 3 of 17  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 01.11.2021 / 0014  
Replacing version dated / version: 10.03.2021 / 0013  
Valid from: 01.11.2021  
PDF print date: 01.11.2021  
Liquifast 9000

Never pour anything into the mouth of an unconscious person!

### **Inhalation**

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

### **Skin contact**

Wipe off residual product carefully with a soft, dry cloth.

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

### **Eye contact**

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

### **Ingestion**

Rinse the mouth thoroughly with water.

Call doctor immediately - have Data Sheet available.

## **4.2 Most important symptoms and effects, both acute and delayed**

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

The following may occur:

In case of sensitivity, concentrations below the limit value may already result in asthmatic symptoms.

Coughing

Irritation of the respiratory tract

Irritant to mucosa of the nose and throat

Respiratory distress

## **4.3 Indication of any immediate medical attention and special treatment needed**

Symptomatic treatment.

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Adapt to the nature and extent of fire.

Extinction powder

CO<sub>2</sub>

Water jet spray

Large fire:

Water jet spray

#### **Unsuitable extinguishing media**

High volume water jet

### **5.2 Special hazards arising from the substance or mixture**

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Hydrocyanic acid (hydrogen cyanide)

Toxic gases

### **5.3 Advice for firefighters**

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

Dispose of contaminated extinction water according to official regulations.

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

#### **6.1.1 For non-emergency personnel**

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Ensure sufficient supply of air.

Page 4 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

Avoid inhalation, and contact with eyes or skin.

### 6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

## 6.2 Environmental precautions

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

## 6.3 Methods and material for containment and cleaning up

Pick up mechanically and dispose of according to Section 13.

## 6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

## SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

## 7.1 Precautions for safe handling

### 7.1.1 General recommendations

Ensure good ventilation.

Avoid inhalation of the vapours.

Avoid contact with eyes or skin.

No contact with products of this type in case of allergies, asthma und chronic respiratory tract disorders.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

### 7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Store in a dry place.

Only store at temperatures from 0°C to 35°C.

## 7.3 Specific end use(s)

No information available at present.

Observe the instructions for good working practice and the recommendations for risk assessment.

Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries, depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

Observe special requirements for isocyanates, also within the framework of the risk assessment and definition of protective measures.

## SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

| CE                                               | Chemical Name | 4,4'-methylenediphenyl diisocyanate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |     |
|--------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|
| WEL-TWA: 0,02 mg/m3 (Isocyanates, all (as -NCO)) |               | WEL-STEL: 0,07 mg/m3 (Isocyanates, all (as -NCO))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | --- |
| Monitoring procedures:                           |               | <div><div>ISO 16702 (Workplace air quality – determination of total isocyanate groups in air using 2-(1-methoxyphenyl)piperazine and liquid chromatography) - 2007</div><div>MDHS 25/4 (Organic isocyanates in air – Laboratory method using sampling either onto 2-(1-methoxyphenyl)piperazine coated glass fibre filters followed by solvent desorption or into impingers and analysis using high performance liquid chromatography) - 2015 -</div><div>EU project BC/CEN/ENTR/000/2002-16 card 7-4 (2004)</div><div>NIOSH 5521 (ISOCYANATES, MONOMERIC) - 1994</div><div>NIOSH 5522 (ISOCYANATES) - 1998</div><div>NIOSH 5525 (ISOCYANATES, TOTAL (MAP)) - 2003</div><div>OSHA 18 (Diisocyanates 2,4-TDI and MDI) - 1980</div><div>OSHA 47 (Methylene Bisphenyl Isocyanate (MDI)) - 1984</div></div> |  |     |

Page 5 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

|                                                                                                        |                                                      |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| BMGV: 1 µmol isocyanate-derived diamine/mol creatinine in urine (At the end of the period of exposure) | Other information: Sen (Isocyanates, all (as - NCO)) |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------|

| Chemical Name          |  | Diisononyl phthalate   |     |
|------------------------|--|------------------------|-----|
| WEL-TWA: 5 mg/m3       |  | WEL-STEL: ---          | --- |
| Monitoring procedures: |  | ---                    |     |
| BMGV: ---              |  | Other information: --- |     |

|                                                                                  |                      |                   |                        |     |
|----------------------------------------------------------------------------------|----------------------|-------------------|------------------------|-----|
|  | <b>Chemical Name</b> | Carbon black      |                        |     |
| WEL-TWA: 3,5 mg/m3                                                               |                      | WEL-STEL: 7 mg/m3 |                        | --- |
| Monitoring procedures:                                                           |                      | ---               |                        |     |
| BMGV: ---                                                                        |                      |                   | Other information: --- |     |

| 4,4'-methylenediphenyl diisocyanate |                                                      |                              |            |       |            |      |
|-------------------------------------|------------------------------------------------------|------------------------------|------------|-------|------------|------|
| Area of application                 | Exposure route / Environmental compartment           | Effect on health             | Descriptor | Value | Unit       | Note |
|                                     | Environment - freshwater                             |                              | PNEC       | 1     | mg/l       |      |
|                                     | Environment - marine                                 |                              | PNEC       | 0,1   | mg/l       |      |
|                                     | Environment - soil                                   |                              | PNEC       | 1     | mg/kg dw   |      |
|                                     | Environment - sewage treatment plant                 |                              | PNEC       | 1     | mg/l       |      |
|                                     | Environment - water, sporadic (intermittent) release |                              | PNEC       | 10    | mg/l       |      |
| Consumer                            | Human - dermal                                       | Short term, systemic effects | DNEL       | 25    | mg/kg bw/d |      |
| Consumer                            | Human - inhalation                                   | Short term, systemic effects | DNEL       | 0,05  | mg/m3      |      |
| Consumer                            | Human - oral                                         | Short term, systemic effects | DNEL       | 20    | mg/kg bw/d |      |
| Consumer                            | Human - dermal                                       | Short term, local effects    | DNEL       | 17,2  | mg/cm2     |      |
| Consumer                            | Human - inhalation                                   | Short term, local effects    | DNEL       | 0,05  | mg/m3      |      |
| Consumer                            | Human - inhalation                                   | Long term, systemic effects  | DNEL       | 0,025 | mg/m3      |      |
| Consumer                            | Human - inhalation                                   | Long term, local effects     | DNEL       | 0,025 | mg/m3      |      |
| Workers / employees                 | Human - dermal                                       | Short term, systemic effects | DNEL       | 50    | mg/kg bw/d |      |
| Workers / employees                 | Human - inhalation                                   | Short term, systemic effects | DNEL       | 0,1   | mg/m3      |      |
| Workers / employees                 | Human - dermal                                       | Short term, local effects    | DNEL       | 28,7  | mg/cm2     |      |
| Workers / employees                 | Human - inhalation                                   | Short term, local effects    | DNEL       | 0,1   | mg/m3      |      |
| Workers / employees                 | Human - inhalation                                   | Long term, systemic effects  | DNEL       | 0,05  | mg/m3      |      |
| Workers / employees                 | Human - inhalation                                   | Long term, local effects     | DNEL       | 0,05  | mg/m3      |      |

| Diisononyl phthalate |                                            |                             |            |       |       |      |
|----------------------|--------------------------------------------|-----------------------------|------------|-------|-------|------|
| Area of application  | Exposure route / Environmental compartment | Effect on health            | Descriptor | Value | Unit  | Note |
|                      | Environment - soil                         |                             | PNEC       | 30    | mg/kg |      |
|                      | Environment - oral (animal feed)           |                             | PNEC       | 150   | mg/kg |      |
| Consumer             | Human - inhalation                         | Long term, systemic effects | DNEL       | 15,3  | mg/m3 |      |
| Consumer             | Human - dermal                             | Long term, systemic effects | DNEL       | 220   | mg/kg |      |
| Consumer             | Human - oral                               | Long term, systemic effects | DNEL       | 4,4   | mg/kg |      |

Page 6 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

|                     |                    |                             |      |       |       |  |
|---------------------|--------------------|-----------------------------|------|-------|-------|--|
| Workers / employees | Human - dermal     | Long term, systemic effects | DNEL | 366   | mg/kg |  |
| Workers / employees | Human - inhalation | Long term, local effects    | DNEL | 51,72 | mg/m3 |  |

| Carbon black        |                                            |                             |            |       |       |      |
|---------------------|--------------------------------------------|-----------------------------|------------|-------|-------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health            | Descriptor | Value | Unit  | Note |
|                     | Environment - freshwater                   |                             | PNEC       | 1     | mg/l  |      |
|                     | Environment - marine                       |                             | PNEC       | 0,1   | mg/l  |      |
| Consumer            | Human - inhalation                         | Long term, systemic effects | DNEL       | 0,06  | mg/m3 |      |
| Workers / employees | Human - inhalation                         | Long term, systemic effects | DNEL       | 1     | mg/m3 |      |

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).  
 (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).  
 (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
 \*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.  
 (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.  
 Applies only if maximum permissible exposure values are listed here.  
 Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.  
 These are specified by e.g. EN 14042.  
 EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:  
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:  
 Chemical resistant protective gloves (EN ISO 374).  
 Recommended  
 Protective nitrile gloves (EN ISO 374).  
 Minimum layer thickness in mm:  
 0,35  
 Permeation time (penetration time) in minutes:  
 > 480  
 Protective hand cream recommended.  
 The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.  
 The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

Page 7 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:  
 Normally not necessary.  
 If OES or MEL is exceeded.  
 Filter A2 P2 (EN 14387), code colour brown, white  
 Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:  
 Not applicable

Additional information on hand protection - No tests have been performed.  
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.  
 Selection of materials derived from glove manufacturer's indications.  
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.  
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.  
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.  
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

## 8.2.3 Environmental exposure controls

No information available at present.

# SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

|                                                           |                                                      |
|-----------------------------------------------------------|------------------------------------------------------|
| Physical state:                                           | Pastelike, Liquid                                    |
| Colour:                                                   | Black                                                |
| Odour:                                                    | Characteristic                                       |
| Melting point/freezing point:                             | There is no information available on this parameter. |
| Boiling point or initial boiling point and boiling range: | 270 °C                                               |
| Flammability:                                             | Flammable                                            |
| Lower explosion limit:                                    | 0,4 Vol-%                                            |
| Upper explosion limit:                                    | 2,9 Vol-%                                            |
| Flash point:                                              | 164 °C                                               |
| Auto-ignition temperature:                                | >300 °C                                              |
| Decomposition temperature:                                | There is no information available on this parameter. |
| pH:                                                       | Mixture is non-soluble (in water).                   |
| Kinematic viscosity:                                      | There is no information available on this parameter. |
| Solubility:                                               | Not miscible                                         |
| Partition coefficient n-octanol/water (log value):        | Does not apply to mixtures.                          |
| Vapour pressure:                                          | There is no information available on this parameter. |
| Density and/or relative density:                          | 1,14 g/cm3 (20°C)                                    |
| Relative vapour density:                                  | There is no information available on this parameter. |
| Particle characteristics:                                 | Does not apply to liquids.                           |

## 9.2 Other information

|                    |                           |
|--------------------|---------------------------|
| Explosives:        | Product is not explosive. |
| Oxidising liquids: | No                        |
| Solvents content:  | 0 %                       |

# SECTION 10: Stability and reactivity

## 10.1 Reactivity

The product has not been tested.

## 10.2 Chemical stability

Stable with proper storage and handling.

## 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

## 10.4 Conditions to avoid

See also section 7.

None known



Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 10.03.2021 / 0013

Valid from: 01.11.2021

PDF print date: 01.11.2021

Liquifast 9000

## 10.5 Incompatible materials

None known

## 10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

# SECTION 11: Toxicological information

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Possibly more information on health effects, see Section 2.1 (classification).

| Liquifast 9000                                                |          |       |      |          |             |        |
|---------------------------------------------------------------|----------|-------|------|----------|-------------|--------|
| Toxicity / effect                                             | Endpoint | Value | Unit | Organism | Test method | Notes  |
| Acute toxicity, by oral route:                                |          |       |      |          |             | n.d.a. |
| Acute toxicity, by dermal route:                              |          |       |      |          |             | n.d.a. |
| Acute toxicity, by inhalation:                                |          |       |      |          |             | n.d.a. |
| Skin corrosion/irritation:                                    |          |       |      |          |             | n.d.a. |
| Serious eye damage/irritation:                                |          |       |      |          |             | n.d.a. |
| Respiratory or skin sensitisation:                            |          |       |      |          |             | n.d.a. |
| Germ cell mutagenicity:                                       |          |       |      |          |             | n.d.a. |
| Carcinogenicity:                                              |          |       |      |          |             | n.d.a. |
| Reproductive toxicity:                                        |          |       |      |          |             | n.d.a. |
| Specific target organ toxicity - single exposure (STOT-SE):   |          |       |      |          |             | n.d.a. |
| Specific target organ toxicity - repeated exposure (STOT-RE): |          |       |      |          |             | n.d.a. |
| Aspiration hazard:                                            |          |       |      |          |             | n.d.a. |
| Symptoms:                                                     |          |       |      |          |             | n.d.a. |

| 4,4'-methylenediphenyl diisocyanate |          |        |         |            |                                                        |                                          |
|-------------------------------------|----------|--------|---------|------------|--------------------------------------------------------|------------------------------------------|
| Toxicity / effect                   | Endpoint | Value  | Unit    | Organism   | Test method                                            | Notes                                    |
| Acute toxicity, by oral route:      | LD50     | >10000 | mg/kg   | Rat        | OECD 401 (Acute Oral Toxicity)                         |                                          |
| Acute toxicity, by oral route:      | LD50     | >2000  | mg/kg   | Rat        | Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)     |                                          |
| Acute toxicity, by dermal route:    | LD50     | >9400  | mg/kg   | Rabbit     | OECD 402 (Acute Dermal Toxicity)                       |                                          |
| Acute toxicity, by inhalation:      | LC50     | >2,24  | mg/l/4h | Rat        | OECD 403 (Acute Inhalation Toxicity)                   | Aerosol                                  |
| Acute toxicity, by inhalation:      | LC50     | 0,368  | mg/l/4h | Rat        | OECD 403 (Acute Inhalation Toxicity)                   | Does not conform with EU classification. |
| Skin corrosion/irritation:          |          |        |         | Rabbit     | OECD 404 (Acute Dermal Irritation/Corrosion)           | Irritant, Analogous conclusion           |
| Serious eye damage/irritation:      |          |        |         | Rabbit     | OECD 405 (Acute Eye Irritation/Corrosion)              | Irritant, Analogous conclusion           |
| Respiratory or skin sensitisation:  |          |        |         | Mouse      | OECD 429 (Skin Sensitisation - Local Lymph Node Assay) | Yes (skin contact), Analogous conclusion |
| Respiratory or skin sensitisation:  |          |        |         | Guinea pig |                                                        | Yes (inhalation)                         |
| Germ cell mutagenicity:             |          |        |         | Rat        | OECD 474 (Mammalian Erythrocyte Micronucleus Test)     | Negative                                 |
| Germ cell mutagenicity:             |          |        |         |            | OECD 471 (Bacterial Reverse Mutation Test)             | Negative, Analogous conclusion           |



Page 9 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

|                                                                         |       |   |       |     |                                                              |                                                                          |
|-------------------------------------------------------------------------|-------|---|-------|-----|--------------------------------------------------------------|--------------------------------------------------------------------------|
| Reproductive toxicity:                                                  | NOAEL | 4 | mg/m3 | Rat | OECD 414 (Prenatal Developmental Toxicity Study)             | Negative, Analogous conclusion                                           |
| Carcinogenicity:                                                        |       |   |       |     | OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies) | Analogous conclusion, Limited evidence of a carcinogenic effect.         |
| Symptoms:                                                               |       |   |       |     |                                                              | respiratory distress, coughing, mucous membrane irritation               |
| Specific target organ toxicity - single exposure (STOT-SE), inhalative: |       |   |       |     |                                                              | Irritation of the respiratory tract                                      |
| Specific target organ toxicity - single exposure (STOT-SE), inhalative: |       |   |       |     |                                                              | Irritation of the respiratory tract, Target organ(s): respiratory system |

| Diisononyl phthalate               |          |        |         |            |                                                   |                                 |
|------------------------------------|----------|--------|---------|------------|---------------------------------------------------|---------------------------------|
| Toxicity / effect                  | Endpoint | Value  | Unit    | Organism   | Test method                                       | Notes                           |
| Acute toxicity, by oral route:     | LD50     | >10000 | mg/kg   | Rat        | OECD 401 (Acute Oral Toxicity)                    |                                 |
| Acute toxicity, by dermal route:   | LD50     | >3160  | mg/kg   | Rabbit     |                                                   |                                 |
| Acute toxicity, by inhalation:     | LC50     | >4,4   | mg/l/4h | Rat        | Limit-Test                                        | Aerosol                         |
| Skin corrosion/irritation:         |          |        |         | Rabbit     | OECD 404 (Acute Dermal Irritation/Corrosion)      | Not irritant                    |
| Serious eye damage/irritation:     |          |        |         | Rabbit     | OECD 405 (Acute Eye Irritation/Corrosion)         | Not irritant                    |
| Respiratory or skin sensitisation: |          |        |         | Guinea pig | Regulation (EC) 440/2008 B.6 (SKIN SENSITISATION) | No (skin contact)               |
| Germ cell mutagenicity:            |          |        |         |            | (Ames-Test)                                       | Negative                        |
| Symptoms:                          |          |        |         |            |                                                   | diarrhoea, nausea and vomiting. |

| Carbon black                                                        |          |        |       |            |                                              |                                        |
|---------------------------------------------------------------------|----------|--------|-------|------------|----------------------------------------------|----------------------------------------|
| Toxicity / effect                                                   | Endpoint | Value  | Unit  | Organism   | Test method                                  | Notes                                  |
| Acute toxicity, by oral route:                                      | LD50     | >2000  | mg/kg | Rat        |                                              |                                        |
| Acute toxicity, by dermal route:                                    | LD50     | >3000  | mg/kg |            |                                              |                                        |
| Skin corrosion/irritation:                                          |          |        |       | Rabbit     | OECD 404 (Acute Dermal Irritation/Corrosion) | Not irritant                           |
| Serious eye damage/irritation:                                      |          |        |       | Rabbit     | OECD 405 (Acute Eye Irritation/Corrosion)    | Not irritant                           |
| Respiratory or skin sensitisation:                                  |          |        |       | Guinea pig | OECD 406 (Skin Sensitisation)                | Not sensitising                        |
| Germ cell mutagenicity:                                             |          |        |       |            | OECD 471 (Bacterial Reverse Mutation Test)   | Negative                               |
| Carcinogenicity:                                                    |          |        |       | Mouse      |                                              | Negative                               |
| Specific target organ toxicity - repeated exposure (STOT-RE):       | NOEL     | 0,0011 | mg/l  |            |                                              | References, Target organ(s): lung(90d) |
| Aspiration hazard:                                                  |          |        |       |            |                                              | No                                     |
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL    | 137    | mg/kg | Mouse      |                                              |                                        |

Page 10 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

|                                                                     |       |    |       |     |  |  |
|---------------------------------------------------------------------|-------|----|-------|-----|--|--|
| Specific target organ toxicity - repeated exposure (STOT-RE), oral: | NOAEL | 52 | mg/kg | Rat |  |  |
|---------------------------------------------------------------------|-------|----|-------|-----|--|--|

## 11.2. Information on other hazards

| Liquifast 9000                   |          |       |      |          |             |                                                                       |
|----------------------------------|----------|-------|------|----------|-------------|-----------------------------------------------------------------------|
| Toxicity / effect                | Endpoint | Value | Unit | Organism | Test method | Notes                                                                 |
| Endocrine disrupting properties: |          |       |      |          |             | Does not apply to mixtures.                                           |
| Other information:               |          |       |      |          |             | No other relevant information available on adverse effects on health. |

## SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

| Liquifast 9000                           |          |      |       |      |          |             |                                                                                                                                                                                                                                                                                              |
|------------------------------------------|----------|------|-------|------|----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity / effect                        | Endpoint | Time | Value | Unit | Organism | Test method | Notes                                                                                                                                                                                                                                                                                        |
| 12.1. Toxicity to fish:                  |          |      |       |      |          |             | n.d.a.                                                                                                                                                                                                                                                                                       |
| 12.1. Toxicity to daphnia:               |          |      |       |      |          |             | n.d.a.                                                                                                                                                                                                                                                                                       |
| 12.1. Toxicity to algae:                 |          |      |       |      |          |             | n.d.a.                                                                                                                                                                                                                                                                                       |
| 12.2. Persistence and degradability:     |          |      |       |      |          |             | With water at the interface, transforms slowly with formation of CO <sub>2</sub> into a firm, insoluble reaction product with a high melting point (polycarbamide). According to experience available to date, polycarbamide is inert and non-degradable. Mechanical precipitation possible. |
| 12.3. Bioaccumulative potential:         |          |      |       |      |          |             | n.d.a.                                                                                                                                                                                                                                                                                       |
| 12.4. Mobility in soil:                  |          |      |       |      |          |             | n.d.a.                                                                                                                                                                                                                                                                                       |
| 12.5. Results of PBT and vPvB assessment |          |      |       |      |          |             | n.d.a.                                                                                                                                                                                                                                                                                       |
| 12.6. Endocrine disrupting properties:   |          |      |       |      |          |             | Does not apply to mixtures.                                                                                                                                                                                                                                                                  |
| 12.7. Other adverse effects:             |          |      |       |      |          |             | No information available on other adverse effects on the environment.                                                                                                                                                                                                                        |
| Other information:                       |          |      |       |      |          |             | According to the recipe, contains no AOX.                                                                                                                                                                                                                                                    |

Page 11 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

|                    |  |  |  |  |  |  |                                                                        |
|--------------------|--|--|--|--|--|--|------------------------------------------------------------------------|
| Other information: |  |  |  |  |  |  | DOC-elimination degree (complexing organic substance) >= 80%/28d: n.a. |
|--------------------|--|--|--|--|--|--|------------------------------------------------------------------------|

| 4,4'-methylenediphenyl diisocyanate  |           |      |       |      |                         |                                                                  |                                                                                                                                                                                                                                                            |
|--------------------------------------|-----------|------|-------|------|-------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity / effect                    | Endpoint  | Time | Value | Unit | Organism                | Test method                                                      | Notes                                                                                                                                                                                                                                                      |
| 12.1. Toxicity to fish:              | LC50      | 96h  | >1000 | mg/l | Brachydanio rerio       | OECD 203 (Fish, Acute Toxicity Test)                             |                                                                                                                                                                                                                                                            |
| 12.1. Toxicity to fish:              | LC0       | 96h  | >1000 | mg/l | Brachydanio rerio       | OECD 203 (Fish, Acute Toxicity Test)                             | Analogous conclusion                                                                                                                                                                                                                                       |
| 12.1. Toxicity to daphnia:           | EC50      | 24h  | >1000 | mg/l | Daphnia magna           | OECD 202 (Daphnia sp. Acute Immobilisation Test)                 | Analogous conclusion                                                                                                                                                                                                                                       |
| 12.1. Toxicity to algae:             | EC50      | 72h  | 1,5   | mg/l |                         | OECD 201 (Alga, Growth Inhibition Test)                          |                                                                                                                                                                                                                                                            |
| 12.1. Toxicity to algae:             | EC50      | 72h  | 1640  | mg/l | Desmodesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test)                          | Analogous conclusion                                                                                                                                                                                                                                       |
| 12.1. Toxicity to algae:             | NOEC/NOEL | 72h  | 1640  | mg/l | Desmodesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test)                          | Analogous conclusion                                                                                                                                                                                                                                       |
| 12.2. Persistence and degradability: |           | 28d  | 0     | %    | activated sludge        | OECD 302 C (Inherent Biodegradability - Modified MITI Test (II)) | With water at the interface, transforms slowly with formation of CO <sub>2</sub> into a firm, insoluble reaction product with a high melting point (polycarbamide)., According to experience available to date, polycarbamide is inert and non-degradable. |
| 12.2. Persistence and degradability: | BOD       | 28d  | 0     | %    |                         | OECD 302 C (Inherent Biodegradability - Modified MITI Test (II)) | With water at the interface, transforms slowly with formation of CO <sub>2</sub> into a firm, insoluble reaction product with a high melting point (polycarbamide)., According to experience available to date, polycarbamide is inert and non-degradable. |

Page 12 of 17  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 01.11.2021 / 0014  
Replacing version dated / version: 10.03.2021 / 0013  
Valid from: 01.11.2021  
PDF print date: 01.11.2021  
Liquifast 9000

|                                          |         |     |           |       |                  |                                                                                          |                                                                                                       |
|------------------------------------------|---------|-----|-----------|-------|------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 12.3. Bioaccumulative potential:         | BCF     | 28d | 200       |       | Cyprinus caprio  | OECD 305 (Bioconcentration - Flow-Through Fish Test)                                     | A notable biological accumulation potential has to be expected (LogPow > 3).                          |
| 12.3. Bioaccumulative potential:         | Log Pow |     | 4,51-5,22 |       |                  | OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)                         | A notable biological accumulation potential has to be expected (LogPow > 3).                          |
| 12.5. Results of PBT and vPvB assessment |         |     |           |       |                  |                                                                                          | No PBT substance, No vPvB substance                                                                   |
| Toxicity to bacteria:                    | EC50    | 3h  | >100      | mg/l  | activated sludge | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) |                                                                                                       |
| Toxicity to bacteria:                    | EC50    | 3h  | >100      | mg/l  | activated sludge | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) | Analogous conclusion                                                                                  |
| Other information:                       |         |     |           |       |                  |                                                                                          | Does not contain any organically bound halogens which can contribute to the AOX value in waste water. |
| Toxicity to annelids:                    | EC50    | 14d | >= 1000   | mg/kg | Eisenia foetida  | OECD 207 (Earthworm, Acute Toxicity Tests)                                               |                                                                                                       |

| Diisononyl phthalate                 |           |      |       |      |                         |                                                                                                 |                       |
|--------------------------------------|-----------|------|-------|------|-------------------------|-------------------------------------------------------------------------------------------------|-----------------------|
| Toxicity / effect                    | Endpoint  | Time | Value | Unit | Organism                | Test method                                                                                     | Notes                 |
| 12.1. Toxicity to fish:              | LC50      | 96h  | >102  | mg/l | Brachydanio rerio       | 92/69/EC                                                                                        |                       |
| 12.1. Toxicity to daphnia:           | EC50      | 48h  | >=74  | mg/l | Daphnia magna           | 84/449/EEC C.2                                                                                  |                       |
| 12.1. Toxicity to daphnia:           | NOEC/NOEL | 21d  | >=100 | mg/l | Daphnia magna           | OECD 202 (Daphnia sp. Acute Immobilisation Test)                                                |                       |
| 12.1. Toxicity to algae:             | NOEC/NOEL | 72h  | 88    | mg/l | Scenedesmus subspicatus |                                                                                                 |                       |
| 12.1. Toxicity to algae:             | EC50      | 72h  | >88   | mg/l | Scenedesmus subspicatus | 84/449/EEC C.3                                                                                  |                       |
| 12.2. Persistence and degradability: |           | 28d  | 81    | %    | activated sludge        | Regulation (EC) 440/2008 C.4-C (DETERMINATION OF 'READY' BIODEGRADABILITY - CO2 EVOLUTION TEST) | Readily biodegradable |

Page 13 of 17  
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revision date / version: 01.11.2021 / 0014  
Replacing version dated / version: 10.03.2021 / 0013  
Valid from: 01.11.2021  
PDF print date: 01.11.2021  
Liquifast 9000

|                                  |           |       |            |            |                  |                                                                                          |                      |
|----------------------------------|-----------|-------|------------|------------|------------------|------------------------------------------------------------------------------------------|----------------------|
| 12.3. Bioaccumulative potential: | Log Kow   |       | 8,8-9,7    |            |                  | OECD 117 (Partition Coefficient (n-octanol/water) - HPLC method)                         | Analogous conclusion |
| 12.3. Bioaccumulative potential: | BCF       | 14d   | <3         |            |                  |                                                                                          | Analogous conclusion |
| 12.4. Mobility in soil:          | Koc       |       | >5000      |            |                  |                                                                                          |                      |
| 12.4. Mobility in soil:          | H (Henry) |       | 0,00000149 | atm*m3/mol |                  |                                                                                          |                      |
| Toxicity to bacteria:            | EC50      | 30min | >83,9      | mg/l       | activated sludge | OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)) |                      |
| Other organisms:                 | NOEC/NOEL | 56d   | >982,4     | mg/kg      | Eisenia foetida  |                                                                                          |                      |
| Other organisms:                 | LC50      | 14d   | >7372      | mg/kg      | Eisenia foetida  | OECD 207 (Earthworm, Acute Toxicity Tests)                                               |                      |

| Carbon black                         |           |      |       |      |                         |                                                                                  |                                                 |
|--------------------------------------|-----------|------|-------|------|-------------------------|----------------------------------------------------------------------------------|-------------------------------------------------|
| Toxicity / effect                    | Endpoint  | Time | Value | Unit | Organism                | Test method                                                                      | Notes                                           |
| 12.1. Toxicity to fish:              | LC50      | 96h  | >1000 | mg/l | Brachydanio rerio       | OECD 203 (Fish, Acute Toxicity Test)                                             |                                                 |
| 12.1. Toxicity to daphnia:           | EC50      | 24h  | >5600 | mg/l | Daphnia magna           | OECD 202 (Daphnia sp. Acute Immobilisation Test)                                 |                                                 |
| 12.1. Toxicity to algae:             | NOEC/NOEL | 3d   | 10000 | mg/l | Scenedesmus subspicatus | OECD 201 (Alga, Growth Inhibition Test)                                          |                                                 |
| 12.2. Persistence and degradability: |           |      |       |      |                         |                                                                                  | Not biodegradable                               |
| 12.3. Bioaccumulative potential:     |           |      |       |      |                         |                                                                                  | Not to be expected                              |
| Toxicity to bacteria:                | EC0       | 3h   | >=800 | mg/l | activated sludge        | Regulation (EC) 440/2008 C.22 (SOIL MICROORGANISMS - CARBON TRANSFORMATION TEST) |                                                 |
| Water solubility:                    |           |      |       |      |                         |                                                                                  | Insoluble, Product floats on the water surface. |

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances

08 05 01 waste isocyanates

Page 14 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

Sewage disposal shall be discouraged.  
 Pay attention to local and national official regulations.  
 E.g. dispose at suitable refuse site.  
 E.g. suitable incineration plant.

### For contaminated packing material

Pay attention to local and national official regulations.  
 Empty container completely.  
 Uncontaminated packaging can be recycled.  
 Dispose of packaging that cannot be cleaned in the same manner as the substance.

## SECTION 14: Transport information

### General statements

#### Transport by road/by rail (ADR/RID)

|                                   |                |
|-----------------------------------|----------------|
| 14.1. UN number or ID number:     | Not applicable |
| 14.2. UN proper shipping name:    |                |
| Not applicable                    |                |
| 14.3. Transport hazard class(es): | Not applicable |
| 14.4. Packing group:              | Not applicable |
| 14.5. Environmental hazards:      | Not applicable |
| Tunnel restriction code:          | Not applicable |
| Classification code:              | Not applicable |
| LQ:                               | Not applicable |
| Transport category:               | Not applicable |

#### Transport by sea (IMDG-code)

|                                   |                |
|-----------------------------------|----------------|
| 14.1. UN number or ID number:     | Not applicable |
| 14.2. UN proper shipping name:    |                |
| Not applicable                    |                |
| 14.3. Transport hazard class(es): | Not applicable |
| 14.4. Packing group:              | Not applicable |
| 14.5. Environmental hazards:      | Not applicable |
| Marine Pollutant:                 | Not applicable |
| EmS:                              | Not applicable |

#### Transport by air (IATA)

|                                   |                |
|-----------------------------------|----------------|
| 14.1. UN number or ID number:     | Not applicable |
| 14.2. UN proper shipping name:    |                |
| Not applicable                    |                |
| 14.3. Transport hazard class(es): | Not applicable |
| 14.4. Packing group:              | Not applicable |
| 14.5. Environmental hazards:      | Not applicable |

### 14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

### 14.7. Maritime transport in bulk according to IMO instruments

Non-dangerous material according to Transport Regulations.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Observe restrictions:  
 Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!  
 Regulation (EC) No 1907/2006, Annex XVII  
 4,4'-methylenediphenyl diisocyanate  
 Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!  
 Comply with trade association/occupational health regulations.  
 Regulation (EU) No 649/2012 'concerning the export and import of hazardous chemicals' must be adhered to, as the product contains a substance that falls within the scope of this Regulation.

Directive 2010/75/EU (VOC):

0 %

Page 15 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

National requirements/regulations on safety and health protection must be applied when using work equipment.

## 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

Revised sections: 1-16  
 These details refer to the product as it is delivered.  
 Employee instruction/training in handling hazardous materials is required.

### Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used                             |
|-----------------------------------------------------------------------|----------------------------------------------------|
| Resp. Sens. 1, H334                                                   | Classification according to calculation procedure. |

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

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.

Resp. Sens. — Respiratory sensitization  
 Acute Tox. — Acute toxicity - inhalation  
 Skin Irrit. — Skin irritation  
 Eye Irrit. — Eye irritation  
 Skin Sens. — Skin sensitization  
 Carc. — Carcinogenicity  
 STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation  
 STOT RE — Specific target organ toxicity - repeated exposure

### Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.  
 Guidelines for the preparation of safety data sheets as amended (ECHA).  
 Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).  
 Safety data sheets for the constituent substances.  
 ECHA Homepage - Information about chemicals.  
 GESTIS Substance Database (Germany).  
 German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).  
 EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.  
 National Lists of Occupational Exposure Limits for each country as amended.  
 Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

### Any abbreviations and acronyms used in this document:

acc., acc. to according, according to  
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 AOX Adsorbable organic halogen compounds  
 approx. approximately  
 Art., Art. no. Article number



Page 16 of 17  
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
 Revision date / version: 01.11.2021 / 0014  
 Replacing version dated / version: 10.03.2021 / 0013  
 Valid from: 01.11.2021  
 PDF print date: 01.11.2021  
 Liquifast 9000

ASTM ASTM International (American Society for Testing and Materials)  
 ATE Acute Toxicity Estimate  
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)  
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)  
 BCF Bioconcentration factor  
 BSEF The International Bromine Council  
 bw body weight  
 CAS Chemical Abstracts Service  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
 CMR carcinogenic, mutagenic, reproductive toxic  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 DOC Dissolved organic carbon  
 dw dry weight  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EbCx, EyCx, EBLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)  
 EC European Community  
 ECHA European Chemicals Agency  
 ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect  
 EEC European Economic Community  
 EINECS European Inventory of Existing Commercial Chemical Substances  
 ELINCS European List of Notified Chemical Substances  
 EN European Norms  
 EPA United States Environmental Protection Agency (United States of America)  
 ErCx, EμCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)  
 etc. et cetera  
 EU European Union  
 EVAL Ethylene-vinyl alcohol copolymer  
 Fax. Fax number  
 gen. general  
 GHS Globally Harmonized System of Classification and Labelling of Chemicals  
 GWP Global warming potential  
 Koc Adsorption coefficient of organic carbon in the soil  
 Kow octanol-water partition coefficient  
 IARC International Agency for Research on Cancer  
 IATA International Air Transport Association  
 IBC (Code) International Bulk Chemical (Code)  
 IMDG-code International Maritime Code for Dangerous Goods  
 incl. including, inclusive  
 IUCLID International Uniform Chemical Information Database  
 IUPAC International Union for Pure Applied Chemistry  
 LC50 Lethal Concentration to 50 % of a test population  
 LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)  
 Log Koc Logarithm of adsorption coefficient of organic carbon in the soil  
 Log Kow, Log Pow Logarithm of octanol-water partition coefficient  
 LQ Limited Quantities  
 MARPOL International Convention for the Prevention of Marine Pollution from Ships  
 n.a. not applicable  
 n.av. not available  
 n.c. not checked  
 n.d.a. no data available  
 NIOSH National Institute for Occupational Safety and Health (USA)  
 NLP No-longer-Polymer  
 NOEC, NOEL No Observed Effect Concentration/Level  
 OECD Organisation for Economic Co-operation and Development  
 org. organic  
 OSHA Occupational Safety and Health Administration (USA)  
 PBT persistent, bioaccumulative and toxic  
 PE Polyethylene  
 PNEC Predicted No Effect Concentration  
 ppm parts per million  
 PVC Polyvinylchloride

Page 17 of 17

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 10.03.2021 / 0013

Valid from: 01.11.2021

PDF print date: 01.11.2021

Liquifast 9000

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.  
No responsibility.

These statements were made by:

**Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90**

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