

## Information about Compilation of Safety Data Sheets

**Product: SureLINK™ Fluorescein (FITC) Labeling Kit**  
**Company: SeraCare Life Sciences**  
**Article number: 5610-0020**

All components of the aforementioned kit had been classified according to Regulation (EC) No. 1907/2006 (REACH) and to Regulation (EC) No. 1272/2008 (GHS/CLP).

For all kit components, SureLINK™ FITC (article numbers: 82-01-00, 82-01-01), Carbonate-bicarbonate Buffer Capsules (article number 82-01-02), and Anhydrous DMF (article number 82-01-03), Safety Data Sheets had been compiled (enclosure).

When handling the kit components, the general and specific safety precautions for laboratories and the corresponding directives have to be followed.

Date of issue: February 2018

**medac**

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

Printing date 13.02.2018

Version number 2

Revision: 13.02.2018

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** SureLINK™ FITC**Article number:** 82-01-00, 82-01-01**CAS Number:**

3326-32-7

**EC number:**

222-042-0

**Registration number**

A registration number is not available for this substance as the substance or its use are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

Relevant identified uses:

RUO (Research Use Only).

Uses advised against:

For in vitro diagnosis.

**Sector of Use** SU24 Scientific research and development**Product category** PC21 Laboratory chemicals**Process category** PROC15 Use as laboratory reagent**1.3 Details of the supplier of the safety data sheet****Manufacturer/Distributor:**

Manufacturer:

SeraCare Life Sciences (KPL)

910 Clopper Road

Gaithersburgh, Maryland 20878, USA

Distributor:

medac GmbH

Theaterstrasse 6

22880 Wedel, Germany

phone: +49 4103 8006-0

**Informing department:**

Product Safety

productsafety@medac.de

**1.4 Emergency telephone number:**

Giftinformationszentrum-Nord, Phone: ++49 551 19 240 (service in German and English, 24 hours permanently accessible).

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

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

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

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

**Hazard pictograms**

GHS08

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

Fluorescein-5-isothiocyanate

(Contd. on page 2)

GB

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

Printing date 13.02.2018

Version number 2

Revision: 13.02.2018

**Trade name: SureLINK™ FITC**

(Contd. of page 1)

**Hazard statements**

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

H317 May cause an allergic skin reaction.

**Precautionary statements**

P280 Wear protective gloves / protective clothing / eye protection

P308+P313 IF exposed or concerned: Get medical advice/attention.

**Additional information:**

Labelling information:

Due to its small quantity the product is not subject to the labelling and packaging requirements of Art. 17 (please refer to Annex I, Number 1.5.2, Regulation (EC) No 1272/2008 (CLP)).

**2.3 Other hazards** Void.**Results of PBT and vPvB assessment****PBT:** Substance(s) does/do not meet the criteria for PBT according to Regulation (EC) No 1907/2006, Annex XIII.**vPvB:** Substance(s) does/do not meet the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII.**SECTION 3: Composition/information on ingredients****CAS No. Designation:**

3326-32-7 Fluorescein-5-isothiocyanate

**Identification number(s):****EC number:** 222-042-0**SVHC** Not applicable.**SECTION 4: First aid measures****4.1 Description of first aid measures****General information** First aider: Take care of self-protection.**After inhalation**

Supply fresh air.

In case of symptoms call a physician.

**After skin contact**

Remove contaminated clothes.

Instantly clean with much water and soap.

In case of symptoms call a physician.

**After eye contact**

Rinse eyes cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

If necessary consult ophthalmologist.

**After swallowing**

Let rinse out mouth and then drink plenty of water.

In case of symptoms call a physician.

**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.**Information for doctor**

Show Safety Data Sheet.

Treatment according to symptoms.

**Danger** No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents** Use fire fighting measures that suit the environment.

(Contd. on page 3)

GB

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

Printing date 13.02.2018

Version number 2

Revision: 13.02.2018

**Trade name: SureLINK™ FITC**

(Contd. of page 2)

**For safety reasons unsuitable extinguishing agents**

For this substance no limitations of extinguishing agents are given.

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

For these small quantities no further relevant information available.

**5.3 Advice for firefighters****Protective equipment:**

In case of burning of a larger amount:

Stay in the danger area only with self-contained breathing apparatus.

Prevent skin and eye contact by keeping a safe distance or by wearing suitable protective clothing.

**Additional information**

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel:

Avoid substance contact with skin and eyes.

Provide sufficient ventilation.

Advice for emergency responders: Protective equipment: see Section 8.

**6.2 Environmental precautions:** Do not empty into drains.**6.3 Methods and material for containment and cleaning up:**

Collect carefully.

Afterwards clean with water and cleansing agent.

Dispose of the material collected according to respective national regulations.

Ensure adequate ventilation.

**6.4 Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Keep containers tightly sealed.

Open and handle container with care.

**Information about protection against explosions and fires:** No special measures required if handled correctly.

**7.2 Conditions for safe storage, including any incompatibilities****Storage****Requirements to be met by storerooms and containers:**

Store container tightly closed.

Store with a desiccant.

Protected from light.

Store at -20 °C.

**Information about storage in one common storage facility:** Because of the small quantities not required.

**Further information about storage conditions:** No further relevant information available.

**Storage class**

Storage class 13 according to the German "Technical Rules for Hazardous Substances (TRGS) 510": Non-combustible solid substances.

**7.3 Specific end use(s)** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

GB

(Contd. on page 4)

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

Printing date 13.02.2018

Version number 2

Revision: 13.02.2018

Trade name: SureLINK™ FITC

(Contd. of page 3)

### SECTION 8: Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see Section 7.

#### 8.1 Control parameters

**Components with critical values that require monitoring at the workplace:**

**DNELs** No further relevant information available.

**PNECs** No further relevant information available.

**Additional information:** The official lists that were valid during the compilation were used as basis.

#### 8.2 Exposure controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See Section 7.

#### Personal protective equipment

##### General protective and hygienic measures

The usual precautionary measures should be adhered to in handling the chemicals.

Avoid contact with the eyes and skin.

Remove contaminated clothing immediately.

Do not eat or drink while working.

Keep away from food and beverages.

Wash hands during breaks and at the end of the work.

**Breathing equipment:** No special precautions are necessary if handled correctly.

##### Protection of hands:

Protective gloves (AQL 1.5).

The breakthrough times stated below base on laboratory test methods which cannot fully simulate working conditions. It is the responsibility of the enduser to choose the appropriate gloves for his application. If working with substances or mixtures harmful in contact with skin, check the gloves beforehand for holes and fissures.

##### Material of gloves

Nitrile rubber, NBR

Natural rubber, NR

Thickness 0.11 mm.

Product quality must comply with standard EN 374.

**Penetration time of glove material** Breakthrough time: > 120 min.

**For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**

Product has not been designed for permanent contact.

**For the permanent contact gloves made of the following materials are suitable:**

Product has not been designed for permanent contact.

**For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Product has not been designed for permanent contact.

**As protection from splashes gloves made of the following materials are suitable:**

Nitrile rubber, NBR

Natural rubber, NR

Thickness: 0.11 mm.

**Eye protection:** Safety glasses (standard EN 166).

**Body protection:** Protective work clothing.

**Limitation and supervision of exposure into the environment** Do not empty into drains.

**Risk management measures** Void.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General Information

##### Appearance:

**Form:** solid, powder

**Colour:** orange

**Smell:** No information available.

(Contd. on page 5)

GB

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

Printing date 13.02.2018

Version number 2

Revision: 13.02.2018

Trade name: SureLINK™ FITC

(Contd. of page 4)

<b>Odour threshold:</b>	No information available.
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<b>pH-value:</b>	Not applicable.
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**Change in condition**

<b>Melting point/freezing point:</b>	>360 °C
<b>Initial boiling point and boiling range:</b>	708.6 °C

<b>Flash point:</b>	No information available.
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<b>Inflammability (solid, gaseous)</b>	No information available.
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<b>Ignition temperature:</b>	No information available.
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<b>Decomposition temperature:</b>	No information available.
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<b>Self-inflammability:</b>	Not self-inflammable.
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<b>Explosive properties:</b>	Not explosive.
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**Critical values for explosion:**

<b>Lower:</b>	Not applicable.
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<b>Upper:</b>	Not applicable.
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<b>Oxidising properties</b>	No information available.
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<b>Steam pressure:</b>	Not applicable.
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<b>Density at 20 °C</b>	1.5 g/cm³
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<b>Relative density</b>	No information available.
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<b>Vapour density</b>	No information available.
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<b>Evaporation rate</b>	Not applicable.
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**Solubility in / Miscibility with**

<b>Water:</b>	Unsoluble
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<b>Partition coefficient: n-octanol/water:</b>	No information available.
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**Viscosity:**

<b>dynamic:</b>	Not applicable.
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<b>kinematic:</b>	Not applicable.
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<b>Organic solvents:</b>	0.0 %
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<b>Solids content:</b>	100.0 %
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<b>9.2 Other information</b>	No further relevant information available.
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### SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

**10.2 Chemical stability** The product is chemically stable under the indicated storage conditions.

**Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.

**10.3 Possibility of hazardous reactions** No relevant information available.

**10.4 Conditions to avoid:**

Warming.

Moisture.

Exposure to light.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** In case of burning of larger amounts: See Section 5.

**Additional information:** No further relevant information available.

### SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute toxicity** Based on available data, the classification criteria are not met.

**Specific symptoms in biological assay:** No further relevant information available.

**Primary irritant effect:**

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

(Contd. on page 6)

GB

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

Printing date 13.02.2018

Version number 2

Revision: 13.02.2018

Trade name: SureLINK™ FITC

(Contd. of page 5)

**Serious eye damage/irritation** Based on available data, the classification criteria are not met.

**after swallowing:** Mucosal irritations in mouth, pharynx and oesophagus possible.

**after inhalation:** Irritations possible.

**Respiratory or skin sensitisation**

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

May cause an allergic skin reaction.

**Other information (about experimental toxicology):** No further relevant information available.

**Subacute to chronic toxicity:** No further relevant information available.

**Additional toxicological information:** No further relevant information available.

**Toxicokinetics, metabolism and distribution** No relevant information available.

**Acute effects (acute toxicity, irritation and corrosivity)** No acute toxicity information available for this product.

**Sensitisation** May cause allergic reactions.

**Repeated dose toxicity** No further relevant information available.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Reproductive toxicity** Based on available data, the classification criteria are not met.

**STOT-single exposure** Based on available data, the classification criteria are not met.

**STOT-repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:** No relevant information available.

**12.2 Persistence and degradability** No relevant information available.

**Other information:** No further relevant information available.

**Behaviour in environmental systems:**

**Components:** No relevant information available.

**12.3 Bioaccumulative potential** No relevant information available.

**12.4 Mobility in soil** No relevant information available.

**Ecotoxicological effects:**

**Remark:** No further relevant information available.

**Additional ecological information:**

**General notes:**

Not known to be hazardous to water.

Do not let enter drains.

#### 12.5 Results of PBT and vPvB assessment

**PBT:** PBT assessment not available as chemical safety assessment not required/not conducted.

**vPvB:** vPvB assessment not available as chemical safety assessment not required/not conducted.

**12.6 Other adverse effects** No relevant information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Product residues have to be disposed of according to the Waste Framework Directive as well as national and regional regulations in each of the latest versions.

**Uncleaned packagings:**

**Recommendation:** Uncleaned packagings have to be disposed of in the same manner as the product residues.

GB

(Contd. on page 7)



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

Printing date 13.02.2018

Version number 2

Revision: 13.02.2018

Trade name: SureLINK™ FITC

(Contd. of page 6)

### SECTION 14: Transport information

<b>14.1 UN-Number</b> ADR, ADN, IMDG, IATA	-
<b>14.2 UN proper shipping name</b> ADR, ADN, IMDG, IATA	-
<b>14.3 Transport hazard class(es)</b> ADR, ADN, IMDG, IATA Class	-
<b>14.4 Packing group</b> ADR, IMDG, IATA	-
<b>14.5 Environmental hazards:</b> Marine pollutant:	No
<b>14.6 Special precautions for user</b>	Not applicable.
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	Not classified as dangerous in the meaning of transport regulations as issued in the latest version. The transport regulations are cited according to international regulations and in the form applicable in Germany (GGVSE). Possible national deviations in other countries are not considered.
<b>UN "Model Regulation":</b>	-

### SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Labelling according to Regulation (EC) No 1272/2008** See Section 2.

**Directive 2012/18/EU**

**Named dangerous substances - ANNEX I** Substance is not listed.

**National regulations**

**Information about limitation of use:**

Take note of the directive on the protection of young people at work in the latest version.

Take note of the directive on the safety and health at work for pregnant and breast feeding mothers and workers of childbearing age in the latest version.

**Water hazard class:** Not known to be hazardous to water.

**15.2 Chemical safety assessment:** A chemical safety assessment has not been carried out.

### SECTION 16: Other information

All information and recommendations are believed to be correct as of the date of this Safety Data Sheet but shall not be taken to be all inclusive and shall be used only as a guide. All chemicals and preparations may present unknown hazards and should be used with caution. medac shall not be held liable for any damage resulting from handling or from contact with the above product.

**Department issuing data specification sheet:** Product Safety

**Contact:** productsafety@medac.de

**Replaces version from:** 23.04.2014

**Reason for alteration:**

Update of the classification.

Change of manufacturer's address and of article number(s).

(Contd. on page 8)

GB



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

Printing date 13.02.2018

Version number 2

Revision: 13.02.2018

**Trade name: SureLINK™ FITC**

(Contd. of page 7)

Change of contact address.

General editorial revision.

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

GB

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

Printing date 13.02.2018

Version number 1

Revision: 13.02.2018

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** Carbonate-Bicarbonate Buffer Capsules**Article number:** 82-01-02**Registration number**

This product is a mixture (see chapter 3). Registration number(s) is/are not available for this substance/these substances as the substance(s) or its/their use are exempted from registration according to Article 2 REACH Regulation (EC) No. 1907/2006, the annual tonnage does not require registration or the registration is envisaged for a later registration deadline.

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

Relevant identified uses:

For Research Use.

Uses advised against:

For in vitro diagnosis.

**Sector of Use** SU24 Scientific research and development**Product category** PC21 Laboratory chemicals**Process category** PROC15 Use as laboratory reagent**1.3 Details of the supplier of the safety data sheet****Manufacturer/Distributor:**

Manufacturer:

SeraCare Life Sciences (KPL)

910 Clopper Road

Gaithersburgh, Maryland 20878, USA

Distributor:

medac GmbH

Theaterstrasse 6

22880 Wedel, Germany

phone: +49 4103 8006-0

**Informing department:**

Product Safety

productsafety@medac.de

**1.4 Emergency telephone number:**

Giftinformationszentrum-Nord, Phone: ++49 551 19 240 (service in German and English, 24 hours permanently accessible).

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Eye Irrit. 2 H319 Causes serious eye irritation.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008****Hazard pictograms**

GHS07

**Signal word** Warning**Hazard statements**

H319 Causes serious eye irritation.

**Precautionary statements**

P280 Wear protective gloves / protective clothing / eye protection

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

GB

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

Printing date 13.02.2018

Version number 1

Revision: 13.02.2018

Trade name: **Carbonate-Bicarbonate Buffer Capsules**

P308+P313 IF exposed or concerned: Get medical advice/attention.

(Contd. of page 1)

**Additional information:**

Labelling information:

Due to its small quantity the product is not subject to the labelling and packaging requirements of Art. 17 (please refer to Annex I, Number 1.5.2, Regulation (EC) No 1272/2008 (CLP)).

**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Substance(s) does/do not meet the criteria for PBT according to Regulation (EC) No 1907/2006, Annex XIII.**vPvB:** Substance(s) does/do not meet the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

### SECTION 3: Composition/information on ingredients

**3.1. Chemical characterisation: substances** Not applicable. Product is a mixture.**CAS No. Designation:**

497-19-8 sodium carbonate

**Identification number(s):****EC number:** 207-838-8**Index number:** 011-005-00-2**3.2 Chemical characterisation: Mixtures****Description:** Mixture of the substances listed below plus nonhazardous additions.**Dangerous components:**

CAS: 497-19-8 EINECS: 207-838-8 Index number: 011-005-00-2	sodium carbonate	⚠ Eye Irrit. 2, H319	≥ 50 - ≤ 100%
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**Additional information** For the wording of the listed H-phrases please refer to Section 16.

### SECTION 4: First aid measures

**4.1 Description of first aid measures****General information** First aider: Take care of self-protection.**After inhalation**

Supply fresh air.

In case of symptoms call a physician.

**After skin contact**

Remove contaminated clothes.

Wash with copious amounts of water.

In case of symptoms call a physician.

**After eye contact**

Rinse eyes cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Instantly consult ophthalmologist.

**After swallowing**

Let rinse out mouth and then drink plenty of water.

In case of symptoms call a physician.

**4.2 Most important symptoms and effects, both acute and delayed** Irritant effects.**Information for doctor**

Show Safety Data Sheet.

Treatment according to symptoms.

**Danger** No further relevant information available.**4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

GB  
(Contd. on page 3)

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

Printing date 13.02.2018

Version number 1

Revision: 13.02.2018

Trade name: Carbonate-Bicarbonate Buffer Capsules

(Contd. of page 2)

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing agents** Product itself does not burn. Use fire fighting measures that suit the environment.**For safety reasons unsuitable extinguishing agents** For this mixture no limitations of extinguishing agents are given.**5.2 Special hazards arising from the substance or mixture** Noncombustible.

#### 5.3 Advice for firefighters

##### Protective equipment:

In case of burning of a larger amount:

Stay in the danger area only with self-contained breathing apparatus.

Prevent skin and eye contact by keeping a safe distance or by wearing suitable protective clothing.

##### Additional information

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### SECTION 6: Accidental release measures

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

Advice for non-emergency personnel:

Avoid substance contact with skin and eyes.

Advice for emergency responders: Protective equipment: see Section 8.

**6.2 Environmental precautions:** Do not empty into drains.

#### 6.3 Methods and material for containment and cleaning up:

Collect in a dry state.

Avoid generation of dusts.

Dispose of the material collected according to respective national regulations.

Afterwards clean with water and cleansing agent.

#### 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

### SECTION 7: Handling and storage

**7.1 Precautions for safe handling** Prevent contact with skin and eyes.**Information about protection against explosions and fires:** No danger of explosion.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Storage

**Requirements to be met by storerooms and containers:**

Store container tightly closed.

Store dry.

Prevent from moisture.

Store at +2 °C to +8 °C.

**Information about storage in one common storage facility:** Because of the small quantities not required.**Further information about storage conditions:** The indications are valid for the whole package.

##### Storage class

Storage class 13 according to the German "Technical Rules for Hazardous Substances (TRGS) 510": Non-combustible solid substances.

**7.3 Specific end use(s)** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

### SECTION 8: Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see Section 7.

(Contd. on page 4)

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

Printing date 13.02.2018

Version number 1

Revision: 13.02.2018

Trade name: Carbonate-Bicarbonate Buffer Capsules

(Contd. of page 3)

**8.1 Control parameters****Components with critical values that require monitoring at the workplace:****DNELs** No further relevant information available.**PNECs** No further relevant information available.

CAS No.	Designation of material	%	Type	Value	Unit
Additional Occupational Exposure Limit Values for possible hazards during processing: Not applicable.					

**Additional information:** The official lists that were valid during the compilation were used as basis.**8.2 Exposure controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See Section 7.

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Avoid contact with eyes, skin and garments.

Remove contaminated clothing immediately.

Do not eat or drink while working.

Keep away from food and beverages.

Wash hands during breaks and at the end of the work.

**Breathing equipment:** No special precautions are necessary if handled correctly.**Protection of hands:**

Disposable medical gloves (AQL 1.5).

The breakthrough times stated below base on laboratory test methods which cannot fully simulate working conditions. It is the responsibility of the enduser to choose the appropriate gloves for his application. If working with substances or mixtures harmful in contact with skin, check the gloves beforehand for holes and fissures.

**Material of gloves**

Natural rubber, NR

Nitrile rubber, NBR

Thickness 0.11 mm.

The product quality has to comply with DIN EN 455.

**Penetration time of glove material** Penetration time > 120 min.**For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**

Product has not been designed for permanent contact.

**For the permanent contact gloves made of the following materials are suitable:**

Product has not been designed for permanent contact.

**For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Product has not been designed for permanent contact.

**As protection from splashes gloves made of the following materials are suitable:**

Natural rubber, NR

Nitrile rubber, NBR

Thickness: 0.11 mm.

**Eye protection:** Safety glasses (standard EN 166).**Body protection:** Protective work clothing.**Limitation and supervision of exposure into the environment** Do not empty into drains.**Risk management measures** Void.

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties****General Information****Appearance:****Form:**

solid (capsule)

**Colour:**

colourless

**Smell:**

No information available.

**Odour threshold:**

Not determined.

(Contd. on page 5)

GB

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

Printing date 13.02.2018

Version number 1

Revision: 13.02.2018

Trade name: Carbonate-Bicarbonate Buffer Capsules

(Contd. of page 4)

**Important information on protection of health and environment, and on safety.**

No further relevant information available.

**pH-value:**

No information available.

**Change in condition****Melting point/freezing point:**

No information available.

**Initial boiling point and boiling range:**

No information available.

**Flash point:**

Not applicable.

**Inflammability (solid, gaseous)**

Mixture is not inflammable.

**Decomposition temperature:**

No information available.

**Self-inflammability:**

Not self-inflammable.

**Explosive properties:**

Not explosive.

**Critical values for explosion:****Lower:**

Not applicable.

**Upper:**

Not applicable.

**Oxidising properties**

No information available.

**Steam pressure:**

Not applicable.

**Density**

No information available.

**Relative density**

No information available.

**Vapour density**

No information available.

**Evaporation rate**

No information available.

**Solubility in / Miscibility with****Water:**

Readily soluble

**Partition coefficient: n-octanol/water:**

No information available.

**Viscosity:****dynamic:**

Not applicable.

**kinematic:**

Not applicable.

**Solvent content:****Organic solvents:**

0 %

**Water:**

0 %

**Solids content:**

≥ 50 - ≤ 100 %

**9.2 Other information**

No further relevant information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity** For this mixture no relevant information available.**10.2 Chemical stability** The product is chemically stable under the indicated storage conditions.**Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.**10.3 Possibility of hazardous reactions**

Dangerous reactions are not to be expected handling product according to its intended use.

**10.4 Conditions to avoid:** Moisture.**10.5 Incompatible materials:** For these concentrations no further relevant information available.**10.6 Hazardous decomposition products:**

No further relevant information available.

In case of burning of larger amounts: See Section 5.

**Additional information:** No further relevant information available.**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity** Based on available data, the classification criteria are not met.

(Contd. on page 6)

GB

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

Printing date 13.02.2018

Version number 1

Revision: 13.02.2018

Trade name: **Carbonate-Bicarbonate Buffer Capsules**

(Contd. of page 5)

**LD/LC50 values that are relevant for classification:****497-19-8 sodium carbonate**

Oral	LD <sub>50</sub>	4,090 mg/kg (rat)
Dermal	LD <sub>50</sub>	>2,000 mg/kg (rabbit)

**Specific symptoms in biological assay:** No further relevant information available.**Primary irritant effect:****Skin corrosion/irritation** Based on available data, the classification criteria are not met.**Serious eye damage/irritation**

Causes serious eye irritation.

**after swallowing:** Mucosal irritations in mouth, pharynx and oesophagus possible.**after inhalation:** Irritations possible.**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**Other information (about experimental toxicology):** No further relevant information available.**Subacute to chronic toxicity:** No further relevant information available.**Additional toxicological information:** No further relevant information available.**Toxicokinetics, metabolism and distribution** No relevant information available.**Acute effects (acute toxicity, irritation and corrosivity)** No acute toxicity information available for this product.**Sensitisation** No sensitising effect known.**Repeated dose toxicity** No further relevant information available.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Based on available data, the classification criteria are not met.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.**SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** No further relevant information available.**12.2 Persistence and degradability** No further relevant information available.**Other information:** No further relevant information available.**Behaviour in environmental systems:****Components:** No relevant information available.**12.3 Bioaccumulative potential** Not applicable.**12.4 Mobility in soil** No relevant information available.**Ecotoxicological effects:****Remark:** No further relevant information available.**Additional ecological information:****General notes:** Void.**12.5 Results of PBT and vPvB assessment****PBT:** PBT assessment not available as chemical safety assessment not required/not conducted.**vPvB:** vPvB assessment not available as chemical safety assessment not required/not conducted.**12.6 Other adverse effects** No relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Product residues have to be disposed of according to the Waste Framework Directive as well as national and regional regulations in each of the latest versions.

(Contd. on page 7)

GB



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

Printing date 13.02.2018

Version number 1

Revision: 13.02.2018

Trade name: Carbonate-Bicarbonate Buffer Capsules

(Contd. of page 6)

**Uncleaned packagings:****Recommendation:** Uncleaned packagings have to be disposed of in the same manner as the product residues.**SECTION 14: Transport information**
**14.1 UN-Number**  
 ADR, ADN, IMDG, IATA

-

**14.2 UN proper shipping name**  
 ADR, ADN, IMDG, IATA

-

**14.3 Transport hazard class(es)**
 ADR, ADN, IMDG, IATA  
 Class

-

**14.4 Packing group**  
 ADR, IMDG, IATA

-

**14.5 Environmental hazards:****Marine pollutant:**

No

**14.6 Special precautions for user**

Not applicable.

**14.7 Transport in bulk according to Annex II of Marpol**  
**and the IBC Code**

Not applicable.

**Transport/Additional information:**

The transport regulations are cited according to international regulations and in the form applicable in Germany (GGVSE). Possible national deviations in other countries are not considered.

**UN "Model Regulation":**

-

**SECTION 15: Regulatory information**
**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Labelling according to Regulation (EC) No 1272/2008** See Section 2.
**Directive 2012/18/EU****Named dangerous substances - ANNEX I** Contains none of the listed substances.**National regulations****Information about limitation of use:**

Take note of the directive on the protection of young people at work in the latest version.

Take note of the directive on the safety and health at work for pregnant and breast feeding mothers and workers of childbearing age in the latest version.

**Water hazard class:** Void.**15.2 Chemical safety assessment:** A chemical safety assessment has not been carried out.**SECTION 16: Other information**

All information and recommendations are believed to be correct as of the date of this Safety Data Sheet but shall not be taken to be all inclusive and shall be used only as a guide. All chemicals and preparations may present unknown hazards and should be used with caution. medac shall not be held liable for any damage resulting from handling or from contact with the above product.

**Relevant phrases**

H319 Causes serious eye irritation.

**Department issuing data specification sheet:** Product Safety

(Contd. on page 8)

—GB—

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

Printing date 13.02.2018

Version number 1

Revision: 13.02.2018

**Trade name: Carbonate-Bicarbonate Buffer Capsules**

(Contd. of page 7)

**Contact:** productsafety@medac.de**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

GB

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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** Anhydrous DMF**Article number:** 82-01-03**CAS Number:**

68-12-2

**EC number:**

200-679-5

**Index number:**

616-001-00-X

**Registration number** 01-2119475605-32-XXXX**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses:

RUO (Research Use Only).

Uses advised against:

For in vitro diagnosis.

**Sector of Use** SU24 Scientific research and development**Product category** PC21 Laboratory chemicals**Process category** PROC15 Use as laboratory reagent**1.3 Details of the supplier of the safety data sheet****Manufacturer/Distributor:**

Manufacturer:

SeraCare Life Sciences (KPL)

910 Clopper Road

Gaithersburgh, Maryland 20878, USA

Distributor:

medac GmbH

Theaterstrasse 6

22880 Wedel, Germany

phone: +49 4103 8006-0

**Informing department:**

Product Safety

productsafety@medac.de

**1.4 Emergency telephone number:**

Giftinformationszentrum-Nord, Phone: ++49 551 19 240 (service in German and English, 24 hours permanently accessible).

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3 H226 Flammable liquid and vapour.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 4 H332 Harmful if inhaled.

Eye Irrit. 2 H319 Causes serious eye irritation.

Repr. 1B H360D May damage the unborn child.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

**Hazard pictograms**

GHS02 GHS07 GHS08

(Contd. on page 2)

—GB—

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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

**Trade name: Anhydrous DMF**

(Contd. of page 1)

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

N,N-dimethylformamide

**Hazard statements**

H226 Flammable liquid and vapour.  
 H312+H332 Harmful in contact with skin or if inhaled.  
 H319 Causes serious eye irritation.  
 H360D May damage the unborn child.

**Precautionary statements**

P201 Obtain special instructions before use.  
 P280 Wear protective gloves / protective clothing / eye protection  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P405 Store locked up.  
 Restricted to professional users.

Reduced labelling:

**Labelling of packages where the contents do not exceed 125 ml****Hazard pictograms**

GHS02 GHS07 GHS08

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

N,N-dimethylformamide

**Hazard statements**

Restricted to professional users.  
 H360D May damage the unborn child.

**Precautionary statements**

P201 Obtain special instructions before use.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P405 Store locked up.

**2.3 Other hazards** No further relevant information available.**Results of PBT and vPvB assessment****PBT:** Substance(s) does/do not meet the criteria for PBT according to Regulation (EC) No 1907/2006, Annex XIII.**vPvB:** Substance(s) does/do not meet the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

### SECTION 3: Composition/information on ingredients

**3.1. Chemical characterisation: substances** Organic solvent**CAS No. Designation:**

68-12-2 N,N-dimethylformamide

**Identification number(s):****EC number:** 200-679-5**Index number:** 616-001-00-X**SVHC**

68-12-2 N,N-dimethylformamide

### SECTION 4: First aid measures

**4.1 Description of first aid measures****General information** First aider: Take care of self-protection.

(Contd. on page 3)

—GB—

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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

**Trade name: Anhydrous DMF**

(Contd. of page 2)

**After inhalation**

Supply fresh air.  
Consult physician.

**After skin contact**

Remove contaminated clothes.  
Instantly clean with much water and soap.  
Call in physician.

**After eye contact**

Rinse eyes cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
Instantly consult ophthalmologist.

**After swallowing**

Let rinse out mouth and then drink plenty of water.  
Call doctor.

**4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

**Information for doctor**

Show Safety Data Sheet.  
Treatment according to symptoms.

**Danger** Danger of skin resorption.

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

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

**Suitable extinguishing agents** Product itself does not burn. Use fire fighting measures that suit the environment.

**For safety reasons unsuitable extinguishing agents**

For this substance no limitations of extinguishing agents are given.

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

Can be released in case of fire:

Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)

**5.3 Advice for firefighters****Protective equipment:**

In case of burning of a larger amount:

Stay in the danger area only with self-contained breathing apparatus.

Prevent skin and eye contact by keeping a safe distance or by wearing suitable protective clothing.

**Additional information**

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel:

Avoid substance contact with skin and eyes.

Provide sufficient ventilation.

Advice for emergency responders: Protective equipment: see Section 8.

**6.2 Environmental precautions:** Do not empty into drains.**6.3 Methods and material for containment and cleaning up:**

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

Afterwards clean with water and cleansing agent.

Dispose of the material collected according to respective national regulations.

Ensure adequate ventilation.

(Contd. on page 4)

GB

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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

Trade name: Anhydrous DMF

(Contd. of page 3)

**6.4 Reference to other sections**

See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

### SECTION 7: Handling and storage

**7.1 Precautions for safe handling**

Observe label precautions.  
Open and handle container with care.  
Prevent contact with skin and eyes.

**Information about protection against explosions and fires:** No special measures required if handled correctly.

**7.2 Conditions for safe storage, including any incompatibilities****Storage****Requirements to be met by storerooms and containers:**

Store container tightly closed.

Store dry.

Store at +2 °C to +8 °C.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:**

Store in a locked cabinet or with access restricted to technical experts or their assistants.

**Storage class** Void.

**7.3 Specific end use(s)** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

### SECTION 8: Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see Section 7.

**8.1 Control parameters****Components with critical values that require monitoring at the workplace:****68-12-2 N,N-dimethylformamide**

WEL	Short-term value: 30 mg/m <sup>3</sup> , 10 ppm
	Long-term value: 15 mg/m <sup>3</sup> , 5 ppm
Sk	

**DNELs** No further relevant information available.

**PNECs** No further relevant information available.

**CAS No. Designation of material % Type Value Unit**

**Additional Occupational Exposure Limit Values for possible hazards during processing:** Not applicable.

**Additional information:** The official lists that were valid during the compilation were used as basis.

**8.2 Exposure controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See Section 7.

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.

Avoid contact with eyes, skin and garments.

Remove contaminated clothing immediately.

Keep away from food and beverages.

Do not eat or drink while working.

Wash hands during breaks and at the end of the work.

**Breathing equipment:** No special precautions are necessary if handled correctly.

**Protection of hands:**

Protective gloves (AQL 1.5).

(Contd. on page 5)

GB

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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

**Trade name: Anhydrous DMF**

(Contd. of page 4)

The breakthrough times stated below base on laboratory test methods which cannot fully simulate working conditions. It is the responsibility of the enduser to choose the appropriate gloves for his application. If working with substances or mixtures harmful in contact with skin, check the gloves beforehand for holes and fissures.

**Material of gloves**

Natural rubber, NR

Nitrile rubber, NBR

Thickness 0.11 mm.

Product quality must comply with standard EN 374.

**Penetration time of glove material** Penetration time > 240 min.

**For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**

Product has not been designed for permanent contact.

**For the permanent contact gloves made of the following materials are suitable:**

Product has not been designed for permanent contact.

**For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Product has not been designed for permanent contact.

**As protection from splashes gloves made of the following materials are suitable:**

Natural rubber, NR

Nitrile rubber, NBR

Thickness: 0.11 mm.

Product quality must comply with standard EN 374.

Penetration time &gt; 240 min.

**Eye protection:** Safety glasses (standard EN 166).**Body protection:** Protective work clothing.**Limitation and supervision of exposure into the environment** Do not empty into drains.**Risk management measures** Void.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**General Information****Appearance:**

<b>Form:</b>	liquid
<b>Colour:</b>	colourless
<b>Smell:</b>	Amine-like
<b>Odour threshold:</b>	0.329 ppm

<b>pH-value:</b>	7
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**Change in condition**

<b>Melting point/freezing point:</b>	-61 °C
<b>Initial boiling point and boiling range:</b>	152.5-153.5 °C

<b>Flash point:</b>	58 °C
<b>Inflammability (solid, gaseous)</b>	Flammable.
<b>Ignition temperature:</b>	410 °C
<b>Decomposition temperature:</b>	> 350 °C
<b>Self-inflammability:</b>	435 °C at 1,013 hPa (method: DIN 51794)
<b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/steam mixtures is possible.

**Critical values for explosion:**

<b>Lower:</b>	2.2 Vol %
<b>Upper:</b>	16 Vol %

<b>Oxidising properties</b>	Not oxidizing.
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<b>Steam pressure at 20 °C:</b>	3.5 hPa
---------------------------------	---------

<b>Density at 20 °C</b>	0.95 g/cm <sup>3</sup>
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<b>Relative density at 20 °C</b>	0.94 g/cm <sup>3</sup>
----------------------------------	------------------------

<b>Vapour density at 20 °C</b>	2.51 g/cm <sup>3</sup>
--------------------------------	------------------------

<b>Evaporation rate</b>	No information available.
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(Contd. on page 6)

GB



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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

Trade name: Anhydrous DMF

(Contd. of page 5)

**Solubility in / Miscibility with****Water:** Fully miscible.**Partition coefficient: n-octanol/water at 25 °C:** -0.85 log POW**Viscosity:****dynamic at 20 °C:** 0.802 mPa.s**kinematic:** No information available.**Organic solvents:** 100 %**Water:** 0 %**Solids content:** 0 %**9.2 Other information**

No further relevant information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications.**10.3 Possibility of hazardous reactions** No relevant information available.**10.4 Conditions to avoid:** Heating.**10.5 Incompatible materials:**

Various plastics (e.g. PVC).

Copper, copper alloys.

Tin.

**10.6 Hazardous decomposition products:**

In case of burning of larger amounts: See Section 5.

Ammonia

Formaldehyde

**Additional information:** No further relevant information available.**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Harmful in contact with skin or if inhaled.

**LD/LC50 values that are relevant for classification:****68-12-2 N,N-dimethylformamide**

Oral	LD <sub>50</sub>	2,800 mg/kg (rat)
Dermal	LD <sub>50</sub>	1,500 mg/kg (rabbit)
Inhalative	LC <sub>50</sub> /4 h	9-15 mg/l (rat)

**Specific symptoms in biological assay:** No further relevant information available.**Primary irritant effect:****Skin corrosion/irritation** Based on available data, the classification criteria are not met.**Serious eye damage/irritation**

Causes serious eye irritation.

**after swallowing:** Mucosal irritations in mouth, pharynx and oesophagus possible.**after inhalation:** Irritations possible.**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**Other information (about experimental toxicology):**

Specific symptoms in animal experiments:

Test for skin irritation (rabbit): No irritations (IUCLID).

Test for eye irritation (rabbit): Irritations (IUCLID).

Sensitisation test (guinea pig): Negative.

**Subacute to chronic toxicity:** Hepatopathy.

(Contd. on page 7)

GB

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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

Trade name: Anhydrous DMF

(Contd. of page 6)

**Additional toxicological information:** No further relevant information available.**Toxicokinetics, metabolism and distribution** No relevant information available.**Sensitisation** No sensitising effect known.**Repeated dose toxicity** No further relevant information available.**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity**

May damage the unborn child.

**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** Based on available data, the classification criteria are not met.**Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1 Toxicity

**Aquatic toxicity:** Toxic to aquatic life.

#### 12.2 Persistence and degradability

Product is easily biodegradable.

Biodegradability

100 %; 21 d; aerobic

OECD test guideline 301E

**Other information:** No further relevant information available.**Behaviour in environmental systems:****Components:** No relevant information available.

#### 12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

Distribution coefficient: n-octanol/water

log Pow: -0.85 (25 °C)

OECD Test Guideline 107

Bioconcentration factor (BCF): 0.3 - 1.2

Cyprinus carpio (carp); 56 d

OECD Test Guideline 305C

Does not easily accumulate in organisms.

**12.4 Mobility in soil** No relevant information available.**Ecotoxicological effects:****Remark:** No further relevant information available.**Additional ecological information:****General notes:**

Do not let enter drains.

Water hazard class 2 (Assessment by list): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system!

#### 12.5 Results of PBT and vPvB assessment

**PBT:** PBT assessment not available as chemical safety assessment not required/not conducted.**vPvB:** vPvB assessment not available as chemical safety assessment not required/not conducted.**12.6 Other adverse effects** No relevant information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Product residues have to be disposed of according to the Waste Framework Directive as well as national and regional regulations in each of the latest versions.

(Contd. on page 8)

GB

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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

Trade name: Anhydrous DMF

(Contd. of page 7)

**Uncleaned packagings:****Recommendation:** Uncleaned packagings have to be disposed of in the same manner as the product residues.**SECTION 14: Transport information**
**14.1 UN-Number**  
**ADR, IMDG, IATA**

UN2265

**14.2 UN proper shipping name**  
**ADR**  
**IMDG, IATA**

 2265 N,N-DIMETHYLFORMAMIDE, solution  
 N,N-DIMETHYLFORMAMIDE

**14.3 Transport hazard class(es)**  
**ADR**

**Class**  
**Label**

 3 (F1) Flammable liquids.  
 3
**IMDG, IATA**
**Class**  
**Label**

 3 Flammable liquids.  
 3

**14.4 Packing group**  
**ADR, IMDG, IATA**

III

**14.5 Environmental hazards:**

Not applicable.

**14.6 Special precautions for user**  
**Kemler Number:**  
**EMS Number:**  
**Stowage Category**

 Warning: Flammable liquids.  
 30  
 F-E,S-D  
 A

**14.7 Transport in bulk according to Annex II of Marpol**  
**and the IBC Code**

Not applicable.

**Transport/Additional information:**

The transport regulations are cited according to international regulations and in the form applicable in Germany (GGVSE). Possible national deviations in other countries are not considered.

**ADR**  
**Limited quantities (LQ)**  
**Excepted quantities (EQ)**

 5L  
 Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

**Transport category**  
**Tunnel restriction code**

 3  
 D/E

**IMDG**  
**Limited quantities (LQ)**  
**Excepted quantities (EQ)**

 5L  
 Code: E1  
 Maximum net quantity per inner packaging: 30 ml  
 Maximum net quantity per outer packaging: 1000 ml

(Contd. on page 9)

—GB—

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

Printing date 09.02.2018

Version number 3

Revision: 09.02.2018

Trade name: Anhydrous DMF

(Contd. of page 8)

UN "Model Regulation":

UN2265, N,N-DIMETHYLFORMAMIDE, solution, 3, III

### SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Labelling according to Regulation (EC) No 1272/2008** See Section 2.

**Directive 2012/18/EU****Named dangerous substances - ANNEX I** Contains none of the listed substances.**Seveso category** FLAMMABLE LIQUIDS**Qualifying quantity (tonnes) for the application of lower-tier requirements**

50 t

5,000 t

**Qualifying quantity (tonnes) for the application of upper-tier requirements**

200 t

50,000 t

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40**National regulations****Information about limitation of use:**

Take note of the directive on the protection of young people at work in the latest version.

Take note of the directive on the safety and health at work for pregnant and breast feeding mothers and workers of childbearing age in the latest version.

Class	Share in %
NK	100.0

**Water hazard class:** Water hazard class 2 (Assessment by list): hazardous for water.**Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**

68-12-2 N,N-dimethylformamide

**15.2 Chemical safety assessment:** A chemical safety assessment has not been carried out.

### SECTION 16: Other information

All information and recommendations are believed to be correct as of the date of this Safety Data Sheet but shall not be taken to be all inclusive and shall be used only as a guide. All chemicals and preparations may present unknown hazards and should be used with caution. medac shall not be held liable for any damage resulting from handling or from contact with the above product.

**Department issuing data specification sheet:** Product Safety**Contact:** productsafety@medac.de**Replaces version from:** 01.06.2017**Reason for alteration:**

Change of contact address.

General editorial revision.

**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

(Contd. on page 10)

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

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**Trade name: Anhydrous DMF**

(Contd. of page 9)

LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
SVHC: Substances of Very High Concern  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 3: Flammable liquids – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Repr. 1B: Reproductive toxicity – Category 1B

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