

Created on: 08.05.2020

DEPC for biochemistry

Revised on: 08.05.2020

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

### 1.1. Product identifier

**Trade name:** DEPC for biochemistry

**Article number:** 1266

**CAS Number:** 1609-47-8

**Registration number:** A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, 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

**Identified uses:**

Biochemical research/analysis

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

**Manufacturer/Supplier:**

neoFroxx GmbH

Marie-Curie-Str. 3

D-64683 Einhausen

[info@neofroxx.com](mailto:info@neofroxx.com)

**Further information obtainable from:**

Dep. Quality Control

### 1.4. Emergency telephone number

+49 (6251) 989 24 - 0 (during normal business hours)

## 2. Hazards identification

### 2.1. Classification of the substance or mixture

**Classification (REGULATION (EC) No 1272/2008):**

Acute toxicity, Category 4, Oral, H302

Eye irritation, Category 2, H319

Specific target organ toxicity - single exposure, Category 3, Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2. Label elements

**Labelling according to Regulation (EC) No 1272/2008:**

**Hazard pictograms:**



**Signal word:**

Warning

**Hazard statements:**

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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#### Precautionary statements:

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

**Contains:** Diethyl pyrocarbonate

**CAS-No.:** 1609-47-8

#### 2.3. Other hazards

None known.

### 3. Composition / information on ingredients

#### 3.1. Substance

**Formula:** C<sub>6</sub>H<sub>10</sub>O<sub>5</sub> (Hill)

**EC-No.:** 216-542-8

**Molar mass:** 162,14 g/mol

**Hazardous components (REGULATION (EC) No 1272/2008):**

#### Chemical name (Concentration):

Diethyl pyrocarbonate (<= 100 % )

**CAS-No.:**

1609-47-8

#### Registration number:

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

#### Classification:

Acute toxicity, Category 4, H302

Eye irritation, Category 2, H319

Specific target organ toxicity - single exposure, Category 3, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 3.2. Mixture

Not applicable

### 4. First aid measures

#### 4.1. Description of first aid measures

**After inhalation:** fresh air.

**In case of skin contact:** Take off immediately all contaminated clothing. Rinse skin with water/ shower.

**After eye contact:** rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

**After swallowing:** immediately make victim drink water (two glasses at most). Consult a physician.

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

irritant effects, Cough, Shortness of breath

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

No information available.

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## 5. Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:**

Water, Foam, Carbon dioxide (CO<sub>2</sub>), Dry powder

**Unsuitable extinguishing media:**

For this substance/mixture no limitations of extinguishing agents are given.

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

Combustible.

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters:**

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

**Further information:**

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## 6. Accidental release measures

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

**Advice for non-emergency personnel:** Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

**Advice for emergency responders:**

Protective equipment see section 8.

### 6.2. Environmental precautions

Do not let product enter drains.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

### 6.4. Reference to other sections

Indications about waste treatment see section 13.

## 7. Handling and storage

### 7.1. Precautions for safe handling

**Advice on safe handling:**

Observe label precautions.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

**Hygiene measures:**

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

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7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storage areas and containers:**

**Storage conditions:**

Tightly closed.

Recommended storage temperature see product label.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## 8. Exposure controls / personal protection

8.1. Control parameters

8.2. Exposure controls

**Engineering measures:**

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

See section 7.1.

**Individual protection measures:**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

**Eye/face protection:**

Safety glasses

**Hand protection:**

**full contact:**

Glove material: butyl-rubber

Glove thickness: 0,7 mm

Break through time: 480 min

**splash contact:**

Glove material: Nitrile rubber

Glove thickness: 0,40 mm

Break through time: 30 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 730 Camatril® -Velours (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Other protective equipment:**

Flame retardant antistatic protective clothing.

**Respiratory protection:**

required when vapours/aerosols are generated.

Recommended Filter type: filter ABEK

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The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls:**

Do not let product enter drains.

## 9. Physical and chemical properties

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

**Form:** liquid

**Colour:** colourless

**Odour:** fruity

**Odour Threshold:** No information available.

**pH:** No information available.

**Melting point:** No information available.

**Boiling point/boiling range:** 93 - 94 °C at 24 hPa

**Flash point:** 69 °C

Method: c.c.

**Evaporation rate:** No information available.

**Flammability (solid, gas):** No information available.

**Lower explosion limit:** No information available.

**Upper explosion limit:** No information available.

**Vapour pressure:** No information available.

**Relative vapour density:** No information available.

**Density:** 1,12 g/cm<sup>3</sup> at 20 °C

**Relative density:** No information available.

**Water solubility:** (slow decomposition)

**Partition coefficient: n-octanol/water:** log Pow: 0,13

(calculated)

Bioaccumulation is not expected.

**Auto-ignition temperature:** No information available.

**Decomposition temperature:** No information available.

**Viscosity, dynamic:** 1,97 mPa.s at 20 °C

**Explosive properties:** Not classified as explosive.

**Oxidizing properties:** none

### 9.2. Other information

None.

## 10. Stability and reactivity

### 10.1. Reactivity

Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point is to be rated as critical.

### 10.2. Chemical stability

sensitive to moisture

The product is chemically stable under standard ambient conditions (room temperature) .

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### 10.3. Possibility of hazardous reactions

**Violent reactions possible with:**

Strong oxidizing agents, Strong acids, strong alkalis, strong reducing agents, Ammonia

### 10.4. Conditions to avoid

Exposure to moisture

Strong heating.

### 10.5. Incompatible materials

no information available

### 10.6. Hazardous decomposition products

no information available

## 11. Toxicological information

### 11.1. Information on toxicological effects

**Acute oral toxicity:**

LD50 Rat: 850 mg/kg

(RTECS)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

**Acute inhalation toxicity:**

LCLO Rat: 10 mg/l

(Lit.)

Symptoms: mucosal irritations, Cough, Shortness of breath, damage of respiratory tract

**Acute dermal toxicity:**

This information is not available.

**Skin irritation:**

Possible damages: slight irritation

**Eye irritation:**

Causes serious eye irritation.

**Sensitisation:**

This information is not available.

**Germ cell mutagenicity:**

This information is not available.

**Carcinogenicity:**

This information is not available.

**Reproductive toxicity:**

This information is not available.

**Teratogenicity:**

This information is not available.

**Specific target organ toxicity - single exposure:**

This information is not available.

**Specific target organ toxicity - repeated exposure:**

This information is not available.

**Aspiration hazard:**

This information is not available.

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## 11.2. Further information

### After absorption:

We have no description of any symptoms of toxicity.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## 12. Ecological information

### 12.1. Toxicity

No information available.

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

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

log Pow: 0,13

(calculated)

Bioaccumulation is not expected.

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

### 12.6. Other adverse effects

Discharge into the environment must be avoided.

## 13. Disposal considerations

### 13.1. Waste treatment methods

#### Recommendation:

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

#### Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations

## 14. Transport information

### Land transport (ADR/RID):

14.1 - 14.6 Not classified as dangerous in the meaning of transport regulations.

### Inland waterway transport (ADN):

Not relevant

### Air transport (IATA):

14.1 - 14.6 Not classified as dangerous in the meaning of transport regulations.

### Sea transport (IMDG):

14.1 - 14.6 Not classified as dangerous in the meaning of transport regulations.

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

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## 15. Regulatory information

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

### EU regulations:

#### Major Accident Hazard Legislation:

SEVESO III

Not applicable

#### Occupational restrictions:

Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

#### Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:

not regulated

#### Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC:

not regulated

#### Substances of very high concern (SVHC):

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1$  % (w/w).

#### National legislation:

**Storage class:** 10 - 13

15.2. Chemical safety assessment:

For this product a chemical safety assessment was not carried out.

## 16. Other information

### Full text of H-Statements referred to under sections 2 and 3.:

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

### Training advice:

Provide adequate information, instruction and training for operators.

### Labelling:

#### Signal word:

Warnung

#### Hazard statements:

H227 Combustible liquid.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

#### Precautionary statements:

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

**Contains:** Diethyl pyrocarbonate

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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**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)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A