

## NZY Tissue gDNA Isolation kit

Article number: 55007

### Safety Data Sheets of the following Kit Components:

55007-2	MB135-Buffer NL
55007-3	MB135-Buffer NW1
55007-6	MB135-Proteinase K (lyo)

**Kit components,  
according to CLP Regulation (EC) No. 1272/2008 not classified as  
hazardous (Safety Data sheet is not required.):**

55007-1	MB135-Buffer NT1
55007-4	MB135-Buffer NW2 (conc)
55007-5	MB135-Buffer NE
55007-7	MB135-Proteinase buffer
55007-8	MB135-NZYSpin Tissue Columns
55007-9	MB135-Collection tubes

**Safety data sheet**  
according to Regulation (EC) No 1907/2006, Article 31

Printing date 25.02.2025

Version number 1

Revision: 25.02.2025

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

- **1.1 Product identifier**
- **Trade name:** MB135 - Buffer NL
- **Article number:** 55007-2
- **UFI:** 7Q90-C0TF-C00R-KG68
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture:** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SERVA Electrophoresis GmbH  
Carl-Benz-Str. 7  
D-69115 Heidelberg  
Tel.: +49 6221 13840-0  
FAX: +49 6221 13840-10  
msds.info@serva.de
- **Information department:** Security Department Phone: +49 6221 13840-35
- **1.4 Emergency telephone number:**  
Emergency medical information in case of poisoning  
Poison Information Centre Mainz-Tel: +49 (0) 6131 19240  
(Counselling in German and English)

**SERVA**  
■ serving scientists ■

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008:**



GHS07

- Acute Tox. 4 H302 Harmful if swallowed.
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2 H319 Causes serious eye irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008:**  
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms:** GHS07
- **Signal word:** Warning

- **Hazard-determining components of labelling:**

guanadine hydrochloride

- **Hazard statements:**

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

- **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

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- **Labelling of packages where the contents do not exceed 125 ml**
- **Hazard pictograms** GHS07
- **Signal word** Warning
- **Hazard-determining components of labelling:**  
guanadine hydrochloride
- **Hazard statements** Void
- **Precautionary statements**  
P280                      Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P301+P312            IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P302+P352           IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment:**
- **PBT:** PBT - Assessment not available.
- **vPvB:** vPvB - Assessment not available.
- **Determination of endocrine-disrupting properties** No further relevant information available.

### SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Ready-to-use solution

- **Dangerous components:**

CAS: 50-01-1	guanadine hydrochloride	30-50%
EINECS: 200-002-3	⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	

- **Additional information**

The product does not contain any other substances that have to be declared according to UK REACH (Regulation (EC) No 1907/2006).

For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.
- **After eye contact:**  
Rinse opened eye for several minutes with running water. Remove contact lenses if possible and continue rinsing. Consult an ophthalmologist immediately.
- **After swallowing:** Rinse out mouth and consult a doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  
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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture:**  
Formation of hazardous vapours and gases possible during heating or in case of fire.  
In case of fire, the following can be formed, but not limited to:

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- Carbon monoxide and carbon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**
- Collect contaminated fire fighting water separately. It must not enter the sewage system.
- 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**
- Wear protective clothing.
- Ensure adequate ventilation
- Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up**
- Dispose contaminated material as waste according to section 13.
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**
- See Section 7 for information on safe handling
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling:**
- Ensure good ventilation/exhaustion at the workplace.
- Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store containers tightly closed and dry.
- **7.3 Specific end use(s):** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **8.2 Exposure controls**
- **Appropriate engineering controls:** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment:**
- **General protective and hygienic measures:**
- Keep away from foodstuffs, beverages and feed.
- Store protective clothing separately.
- Immediately remove all soiled and contaminated clothing
- Avoid contact with the eyes and skin.
- Wash hands before breaks and at the end of work.
- **Breathing equipment:** Suitable respiratory protective device recommended.

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**· Hand protection:**

Protective gloves.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**· Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**· Penetration time of glove material:**

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

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

Nitrile rubber, NBR

Natural rubber, NR

**· Eye/face protection:** Safety glasses**· Body protection:** Protective work clothing.**SECTION 9: Physical and chemical properties****· 9.1 Information on basic physical and chemical properties****· General Information:****· Physical state:**

Fluid

**· Colour:**

Yellowish

**· Odour:**

Odourless

**· Melting point/freezing point:**

No information available

**· Boiling point or initial boiling point and boiling range:**

No information available

**· Flammability:**

No information available

**· Lower and upper explosion limit:****· Lower:**

No information available

**· Upper:**

No information available

**· Flash point:**

No information available

**· Decomposition temperature:**

No information available

**· pH at 20 °C:**

4.8-5.2

**· Viscosity:****· Kinematic viscosity:**

No information available

**· Dynamic viscosity:**

No information available

**· Solubility:****· Water:**

Fully miscible

**· Partition coefficient n-octanol/water (log value):**

No information available

**· Vapour pressure at 20 °C:**

23.5 hPa

**· Vapour pressure at 50 °C:**

123.8 hPa

**· Density and/or relative density:****· Density at 20 °C:**1.15 g/cm<sup>3</sup>**· Relative density:**

No information available

**· 9.2 Other information****· Appearance:****· Form:**

Liquid

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- **Important information on protection of health and environment, and on safety:**
- **Explosive properties:** no 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 according to specifications.
- **10.3 Possibility of hazardous reactions:** No further relevant information available.
- **10.4 Conditions to avoid:** No further relevant information available.
- **10.5 Incompatible materials:**  
Avoid contact with:  
strong acids  
strong bases
- **10.6 Hazardous decomposition products:** In case of fire: see section 5

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:**
- **Acute toxicity:** Harmful if swallowed.

- **LD/LC50 values that are relevant for classification:**

#### 50-01-1 guanadine hydrochloride

Oral	LD50	773-907 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4h	5.3 mg/l (rat)

- **Skin corrosion/irritation:** Causes skin irritation.
- **Serious eye damage/irritation:** Causes serious eye irritation.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **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.
- **11.2 Information on other hazards:**
- **Endocrine disrupting properties:** No relevant information available

### SECTION 12: Ecological information

- **12.1 Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability:** No further relevant information available.
- **12.3 Bioaccumulative potential:** No further relevant information available.
- **12.4 Mobility in soil:** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment:**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6 Endocrine disrupting properties:** For information on endocrine disrupting properties see section 11.

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- **12.7 Other adverse effects:**
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Dispose of in accordance with official regulations.  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**  
Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### SECTION 14: Transport information

- |  |                 |
|--|-----------------|
| · <b>14.1 UN number or ID number</b><br>· <b>ADR, IMDG, IATA</b>                             | Void            |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, IMDG, IATA</b>                            | Void            |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Class:</b> | Void            |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                      | Void            |
| · <b>14.5 Environmental hazards</b>  | Not applicable. |
| · <b>14.6 Special precautions for user</b>   | Not applicable. |
| · <b>14.7 Maritime transport in bulk according to IMO instruments</b>                        | Not applicable. |
| · <b>UN "Model Regulation":</b>  | Void            |

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**

- **Regulated explosives precursors**

None of the ingredients is listed.

- **Regulated poisons**

None of the ingredients is listed.

- **Reportable explosives precursors**

None of the ingredients is listed.

- **Reportable poisons**

None of the ingredients is listed.

- **Directive 2012/18/EU**

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

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

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

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

· **Relevant phrases**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· **Department issuing SDS:** Product Safety Department

· **Contact:** +49 6221 13840-35

· **Date of previous version:** 25.02.2025

· **Abbreviations and acronyms:**

PBT: persistent, bioaccumulative, toxic substance (UK REACH)

vPvB: very persistent, very bioaccumulative substance (UK REACH)

UK REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

GB CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

UFI: Unique Formula Identifier

ADR: Accord relatif au transport international 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

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

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



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Version number 1

Revision: 25.02.2025

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

· **1.1 Product identifier**

· **Trade name:** MB135 - Buffer NW1

· **Article number:** 55007-3

· **UFI:** 8T90-V0GU-P007-7TSA

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

No further relevant information available.

· **Application of the substance / the mixture:** Laboratory chemicals

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

SERVA Electrophoresis GmbH

Carl-Benz-Str. 7

D-69115 Heidelberg

Tel.: +49 6221 13840-0

FAX: +49 6221 13840-10

msds.info@serva.de

· **Information department:** Security Department Phone: +49 6221 13840-35

· **1.4 Emergency telephone number:**

Emergency medical information in case of poisoning

Poison Information Centre Mainz-Tel: +49 (0) 6131 19240

(Counselling in German and English)



### SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

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



GHS02

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· **2.2 Label elements**

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

The product is classified and labelled according to the GB CLP regulation.

· **Hazard pictograms:** GHS02, GHS07

· **Signal word:** Warning

· **Hazard-determining components of labelling:**

guanadine hydrochloride

propan-2-ol

· **Hazard statements:**

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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*H336 May cause drowsiness or dizziness.***· Precautionary statements**

**P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**P280** Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

**P301+P312** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

**P302+P352** IF ON SKIN: Wash with plenty of soap and water.

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

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

**· Labelling of packages where the contents do not exceed 125 ml****· Hazard pictograms** GHS02, GHS07**· Signal word** Warning**· Hazard-determining components of labelling:**

guanadine hydrochloride

propan-2-ol

**· Hazard statements** Void**· Precautionary statements**

**P280** Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

**P301+P312** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

**P302+P352** IF ON SKIN: Wash with plenty of soap and water.

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

**· 2.3 Other hazards****· Results of PBT and vPvB assessment:****· PBT:** PBT - Assessment not available.**· vPvB:** vPvB - Assessment not available.**· Determination of endocrine-disrupting properties** No further relevant information available.**SECTION 3: Composition/information on ingredients****· 3.2 Mixtures****· Description:** Ready-to-use solution**· Dangerous components:**

CAS: 50-01-1	guanadine hydrochloride	30-50%
EINECS: 200-002-3	⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
	propan-2-ol	
	⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	

**· Additional information**

The product does not contain any other substances that have to be declared according to UK REACH (Regulation (EC) No 1907/2006).

For the wording of the listed hazard phrases refer to section 16.

**SECTION 4: First aid measures****· 4.1 Description of first aid measures****· After inhalation:** Supply fresh air; consult doctor in case of complaints.**· After skin contact:**

Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.

**· After eye contact:**

Rinse opened eye for several minutes with running water. Remove contact lenses if possible and continue rinsing. Consult an ophthalmologist immediately.

**· After swallowing:** Rinse out mouth and consult a doctor.

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- **4.2 Most important symptoms and effects, both acute and delayed**  
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:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture:**  
Formation of hazardous vapours and gases possible during heating or in case of fire.  
In case of fire, the following can be formed, but not limited to:  
Carbon monoxide and carbon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information**  
Collect contaminated fire fighting water separately. It must not enter the sewage system.  
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**  
Wear protective clothing.  
Ensure adequate ventilation  
Particular danger of slipping on leaked/spilled product.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up**  
Dispose contaminated material as waste according to section 13.  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:** Store containers tightly closed and dry.
- **7.3 Specific end use(s):** No further relevant information available.

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### SECTION 8: Exposure controls/personal protection

#### · 8.1 Control parameters

##### · Components with limit values that require monitoring at the workplace:

###### propan-2-ol

WEL	Short-term value: 1250 mg/m <sup>3</sup> , 500 ppm Long-term value: 999 mg/m <sup>3</sup> , 400 ppm
-----	--

· **Additional information:** The lists that were valid during the creation were used as basis.

#### · 8.2 Exposure controls

· **Appropriate engineering controls:** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Store protective clothing separately.

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

Short term filter device:

Filter P2.

· **Hand protection:**

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material:**

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

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

Nitrile rubber, NBR

Natural rubber, NR

· **Eye/face protection:** Safety glasses

· **Body protection:** Protective work clothing.

### SECTION 9: Physical and chemical properties

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

· **General Information:**

· **Physical state:**

Fluid

· **Colour:**

Colourless

· **Odour:**

Characteristic

· **Melting point/freezing point:**

No information available

· **Boiling point or initial boiling point and boiling range:**

87 °C

· **Flammability:**

Flammable liquid and vapour according to GB CLP Regulation (EU) No. 1272/2008: Flam. Liq. 3 H226

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# Safety data sheet

## according to Regulation (EC) No 1907/2006, Article 31

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Trade name: MB135 - Buffer NW1

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· <b>Lower and upper explosion limit:</b>	
· <b>Lower:</b>	No information available
· <b>Upper:</b>	No information available
· <b>Flash point:</b>	25 °C
· <b>Auto-ignition temperature:</b>	399 °C
· <b>Decomposition temperature:</b>	No information available
· <b>pH at 20 °C:</b>	7-8
· <b>Viscosity:</b>	
· <b>Kinematic viscosity:</b>	No information available
· <b>Dynamic viscosity:</b>	No information available
· <b>Solubility:</b>	
· <b>Water:</b>	Fully miscible
· <b>Partition coefficient n-octanol/water (log value):</b>	No information available
· <b>Vapour pressure at 20 °C:</b>	33.8 hPa
· <b>Vapour pressure at 50 °C:</b>	173.4 hPa
· <b>Density and/or relative density:</b>	
· <b>Density at 20 °C:</b>	1.06 g/cm <sup>3</sup>
· <b>Relative density:</b>	Not determined.

### · 9.2 Other information

· <b>Appearance:</b>	
· <b>Form:</b>	Liquid
· <b>Important information on protection of health and environment, and on safety:</b>	
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible. Not determined.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	20-<35 %

## 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 according to specifications.
- **10.3 Possibility of hazardous reactions:** No further relevant information available.
- **10.4 Conditions to avoid:** Avoid high temperatures, flames and sparks
- **10.5 Incompatible materials:** Avoid contact with strong oxidising agents, strong acids, strong alkalis.
- **10.6 Hazardous decomposition products:** In case of fire: see section 5

## SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:**
- **Acute toxicity:** Harmful if swallowed.

### · LD/LC50 values that are relevant for classification:

#### 50-01-1 guanadine hydrochloride

Oral	LD50	773-907 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50/4h	5.3 mg/l (rat)

- **Skin corrosion/irritation:** Causes skin irritation.
- **Serious eye damage/irritation:** Causes serious eye irritation.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.

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- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** May cause drowsiness or dizziness.
- **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.
- **11.2 Information on other hazards:**
- **Endocrine disrupting properties:** No relevant information available

### SECTION 12: Ecological information

- **12.1 Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability:** No further relevant information available.
- **12.3 Bioaccumulative potential:** No further relevant information available.
- **12.4 Mobility in soil:** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment:**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6 Endocrine disrupting properties:** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects:**
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Dispose of in accordance with official regulations.  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**  
Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### SECTION 14: Transport information

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>· <b>14.1 UN number or ID number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>                   | <p>UN1993</p>   |
| <ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul> | <p>1993 FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))<br/>FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL (ISOPROPYL ALCOHOL))</p> |
| <ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>               | <p>3 Flammable liquids.</p>   |
| <ul style="list-style-type: none"> <li>· <b>Class:</b></li> <li>· <b>Label:</b></li> </ul>   | <p>3<br/>3</p>  |



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· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	<b>III</b>
· <b>14.5 Environmental hazards</b>	<i>Not applicable.</i>
· <b>14.6 Special precautions for user</b> · <b>Hazard identification number (Kemler code):</b> · <b>EMS Number:</b> · <b>Stowage Category</b>	<i>Warning: Flammable liquids.</i> <b>30</b> <b>F-E, S-E</b> <b>A</b>
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	<i>Not applicable.</i>
· <b>Transport/Additional information:</b>	
· <b>ADR</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>5L</b> <b>Code: E1</b> <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 1000 ml</i>
· <b>Transport category</b> · <b>Tunnel restriction code</b>	<b>3</b> <b>D/E</b>
· <b>IMDG</b> · <b>Limited quantities (LQ)</b> · <b>Excepted quantities (EQ)</b>	<b>5L</b> <b>Code: E1</b> <i>Maximum net quantity per inner packaging: 30 ml</i> <i>Maximum net quantity per outer packaging: 1000 ml</i>
· <b>UN "Model Regulation":</b>	<b>UN 1993 FLAMMABLE LIQUID, N. O. S. (ISOPROPANOL (ISOPROPYL ALCOHOL)), 3, III</b>

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
· **Poisons Act**

· **Regulated explosives precursors***None of the ingredients is listed.*· **Regulated poisons***None of the ingredients is listed.*· **Reportable explosives precursors***None of the ingredients is listed.*· **Reportable poisons***None of the ingredients is listed.*· **Directive 2012/18/EU**· **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*· **Seveso category P5c FLAMMABLE LIQUIDS**· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t· **REGULATION (EC) No 1907/2006 ANNEX XVII** *Conditions of restriction: 3*· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II***None of the ingredients is listed.*

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· **REGULATION (EU) 2019/1148**· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations:**· **Technical instructions (air):**

Class	Share in %
NK	20-40

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

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

· **Relevant phrases**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

· **Department issuing SDS:** Product Safety Department· **Contact:** +49 6221 13840-35· **Abbreviations and acronyms:**

PBT: persistent, bioaccumulative, toxic substance (UK REACH)

vPvB: very persistent, very bioaccumulative substance (UK REACH)

UK REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

GB CLP: Regulation on classification, labelling and packaging of substances and mixtures

bw: body weight

UFI: Unique Formula Identifier

ADR: Accord relatif au transport international 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

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

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

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



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

- **1.1 Product identifier**
- **Trade name:** MB135 - Proteinase K (lyo)
- **Article number:** 55007-6
- **CAS Number:**  
39450-01-6
- **EC number:**  
254-457-8
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture:** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
SERVA Electrophoresis GmbH  
Carl-Benz-Str. 7  
D-69115 Heidelberg  
Tel.: +49 6221 13840-0  
FAX: +49 6221 13840-10  
msds.info@serva.de
- **Information department:** Security Department Phone: +49 6221 13840-35
- **1.4 Emergency telephone number:**  
Emergency medical information in case of poisoning  
Poison Information Centre Mainz-Tel: +49 (0) 6131 19240  
(Counselling in German and English)



**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008:**



GHS08

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



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008:**  
The substance is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms:** GHS08
- **Signal word:** Danger
- **Hazard statements:**  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **Precautionary statements**
- P280                   Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P284                   [In case of inadequate ventilation] wear respiratory protection.

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GB

## Safety data sheet

### according to Regulation (EC) No 1907/2006, Article 31

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- P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- **Labelling of packages where the contents do not exceed 125 ml**
  - **Hazard pictograms** GHS08
  - **Signal word** Danger
  - **Hazard statements**  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
  - **Precautionary statements**  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - **2.3 Other hazards**
  - **Results of PBT and vPvB assessment:**
  - **PBT:** PBT - Assessment not available.
  - **vPvB:** vPvB - Assessment not available.
  - **Determination of endocrine-disrupting properties** No further relevant information available.

### SECTION 3: Composition/information on ingredients

- **3.1 Substances**
- **CAS No. Description:**  
 39450-01-6 Proteinase, Tritirachium album serine
- **Identification number(s):**
- **EC number:** 254-457-8

· **Regulation (EC) No 648/2004 on detergents / Labelling for contents**

enzymes

≥30%

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
 Wash off immediately with soap and water and rinse thoroughly. In case of complaints, consult a doctor.
- **After eye contact:**  
 Rinse opened eye for several minutes with running water. Remove contact lenses if possible and continue rinsing. Consult an ophthalmologist immediately.
- **After swallowing:** Rinse out mouth. Call a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**  
 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:**  
 CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture:**  
 In case of fire, the following can be formed, but not limited to:

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Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide and carbon dioxide

· **5.3 Advice for firefighters**

· **Protective equipment:** Wear self-contained breathing apparatus.

· **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

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**

Wear protective clothing.

Ensure adequate ventilation

Avoid formation of dust.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up**

Dispose contaminated material as waste according to section 13.

Pick up mechanically.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

\* **SECTION 7: Handling and storage**

· **7.1 Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of dust.

· **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

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

· **Further information about storage conditions:** Store containers tightly closed and dry.

· **7.3 Specific end use(s):** No further relevant information available.

\* **SECTION 8: Exposure controls/personal protection**

· **8.1 Control parameters**

· **Components with limit values that require monitoring at the workplace:** Not required.

· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls:** No further data; see section 7.

· **Individual protection measures, such as personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Store protective clothing separately.

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

Short term filter device:

Filter P2.

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- **Hand protection:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Protective gloves.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material:**

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

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

Natural rubber, NR

Nitrile rubber, NBR

- **Eye/face protection:**

Safety glasses

Tightly sealed goggles.

- **Body protection:** Protective work clothing.

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information:**

- **Physical state:**

Solid.

- **Colour:**

Grey

- **Odour:**

Nearly odourless

- **Odour threshold:**

No information available

- **Melting point/freezing point:**

No information available

- **Boiling point or initial boiling point and boiling range:**

No information available

- **Flammability:**

No information available

- **Lower and upper explosion limit:**

- **Lower:**

No information available

- **Upper:**

No information available

- **Flash point:**

No information available

- **Decomposition temperature:**

No information available

- **Viscosity:**

- **Kinematic viscosity:**

No information available

- **Dynamic viscosity:**

No information available

- **Solubility:**

- **Water:**

Soluble

- **Partition coefficient n-octanol/water (log value):**

No information available

- **Vapour pressure:**

No information available

- **Density and/or relative density:**

- **Density:**

No information available

- **Relative density:**

No information available

- **Particle characteristics**

No information available

- **9.2 Other information**

Further physico-chemical data are not available.

- **Appearance:**

- **Form:**

lyophilisate

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· **Important information on protection of health and environment, and on safety:**

· **Explosive properties:**

The product is not explosive, but the formation of explosive dust/air mixtures is possible.

· **Molecular weight**

~28,000 g/mol

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity:** No further relevant information available.
- **10.2 Chemical stability:**
- **Thermal decomposition / conditions to be avoided:** Protein denaturation
- **10.3 Possibility of hazardous reactions:** No further relevant information available.
- **10.4 Conditions to avoid:** High temperatures
- **10.5 Incompatible materials:** Avoid contact with strong oxidising agents, strong acids, strong alkalis.
- **10.6 Hazardous decomposition products:** In case of fire: see section 5

**SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation:** Causes skin irritation.
- **Serious eye damage/irritation:** Causes serious eye irritation.
- **Respiratory or skin sensitisation:**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **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.
- **Additional toxicological information:**
- **Acute effects (acute toxicity, irritation and corrosivity)** Respiratory irritation is possible.
- **11.2 Information on other hazards:**
- **Endocrine disrupting properties:** No relevant information available

**SECTION 12: Ecological information**

- **12.1 Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability:** No further relevant information available.
- **12.3 Bioaccumulative potential:** No further relevant information available.
- **12.4 Mobility in soil:** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment:**
- **PBT:** PBT - assessment not available.
- **vPvB:** vPvB - assessment not available.
- **12.6 Endocrine disrupting properties:** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects:**
- **Additional ecological information:**
- **General notes:**  
Do not allow product to reach ground water, water course or sewage system.  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

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**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
Dispose of in accordance with official regulations.  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:**  
Uncleaned packaging must be disposed of in the same way as the product in accordance with official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**SECTION 14: Transport information**

- |  |  |
|--|--|
| · <b>14.1 UN number or ID number</b><br>· <b>ADR, ADN, IMDG, IATA</b>                        | Void   |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR, ADN, IMDG, IATA</b>                       | Void   |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Class:</b> | Void   |
| · <b>14.4 Packing group</b><br>· <b>ADR, IMDG, IATA</b>                                      | Void   |
| · <b>14.5 Environmental hazards</b><br>· <b>Marine pollutant:</b>                            | No   |
| · <b>14.6 Special precautions for user</b>   | Not applicable.                                      |
| · <b>14.7 Maritime transport in bulk according to IMO instruments</b>                        | Not applicable.                                      |
| · <b>Transport/Additional information:</b>   | Not dangerous according to the above specifications. |
| · <b>UN "Model Regulation":</b>  | Void   |

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Poisons Act**
- **Regulated explosives precursors** Substance is not listed.
- **Regulated poisons** Substance is not listed.
- **Reportable explosives precursors** Substance is not listed.
- **Reportable poisons** Substance is not listed.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
Substance is not listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**  
Substance is not listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS** Substance is not listed.

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- **Regulation (EC) No 273/2004 on drug precursors** Substance is not listed.
  - **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**  
Substance is not listed.
  - **National regulations:**
  - **Technical instructions (air):**
- | Class | Share in % |
|-------|------------|
| I     | 80-100     |
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

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

- **Department issuing SDS:** Product Safety Department
- **Contact:** +49 6221 13840-35
- **Date of previous version:** 25.02.2025
- **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*  
*PBT: persistent, bioaccumulative, toxic substance (UK REACH)*  
*vPvB: very persistent, very bioaccumulative substance (UK REACH)*  
*UK REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals*  
*GB CLP: Regulation on classification, labelling and packaging of substances and mixtures*  
*bw: body weight*  
*ADR: Accord relatif au transport international 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)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*  
*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*  
*Resp. Sens. 1: Respiratory sensitisation – Category 1*

GB