

23.01.2006

## Setbestandteile

Artikelnummer	Bezeichnung
<b>AN311910</b>	<b>Mykobakterium ELISA von Typ IgG in Humanserum</b>

Bestandteile:

AN311910-01	anti-human-IgG Peroxidase Konjugat
AN311910-02	TMB Konzentrat 10x
AN311910-03	TMB Verdünner
AN311910-04	Stopplösung
AN311910-05	Serum-Diluens
AN311910-06	Kontrollseren
AN311910-07	Kalibratoren
AN311910-08	mit A60-Antigen von BCG beschichtete MTP

### 1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

- **Trade name:** *TMB Konzentrat 20x*
- **Application of the substance / the preparation**  
Desalting agent  
Additional component

- **Manufacturer/Supplier:**  
PROGEN Biotechnik GmbH  
Maafstraße 30  
D-69123 Heidelberg


Tel.: 06221/8278-0

- **Further information obtainable from:** *Abteilung Umweltschutz*

### 2 Composition/information on ingredients

- **Chemical characterization**
- **Description:** *Mixture of substances listed below with nonhazardous additions.*

· **Dangerous components:**

CAS: 54827-17-7	3,3',5,5'-tetramethylbenzidine	 T; R 23/24/25	0.12%
EINECS: 259-364-6			

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

### 3 Hazards identification

- **Hazard description:** *Not applicable.*
- **Information concerning particular hazards for human and environment:**  
*The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.*
- **Classification system:**  
*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*

### 4 First aid measures

- **General information:** *No special measures required.*
- **After inhalation:** *Supply fresh air; consult doctor in case of complaints.*
- **After skin contact:** *Generally the product does not irritate the skin.*
- **After eye contact:** *Rinse opened eye for several minutes under running water.*
- **After swallowing:** *If symptoms persist consult doctor.*

### 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
*CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **Protective equipment:** *No special measures required.*

### 6 Accidental release measures

- **Person-related safety precautions:** *Not required.*
- **Measures for environmental protection:** *No special measures required.*
- **Measures for cleaning/collecting:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*
- **Additional information:** *No dangerous substances are released.*

**Trade name: TMB Konzentrat 20x**

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### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in a cool place.

### 8 Exposure controls/personal protection

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

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

**872-50-4 N-methyl-2-pyrrolidone**

OES ()	Short-term value: 309 mg/m <sup>3</sup> , 75 ppm Long-term value: 103 mg/m <sup>3</sup> , 25 ppm Sk
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**64-19-7 acetic acid**

OES ()	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm ILV
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- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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.
- **Eye protection:** Goggles recommended during refilling

### 9 Physical and chemical properties

- **General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	According to product specification
<b>Odour:</b>	Characteristic

- **Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** Undetermined.

- **Flash point:** 95°C

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**Trade name: TMB Konzentrat 20x**

(Contd. of page 2)

· <b>Ignition temperature:</b>	270°C
· <b>Self-igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	1.3 Vol %
<b>Upper:</b>	9.5 Vol %
· <b>Vapour pressure at 20°C:</b>	0.3 hPa
· <b>Density:</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>pH-value at 20°C:</b>	6.5
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
· <b>Solids content:</b>	5.0 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

### 12 Ecological information

- **General notes:** Generally not hazardous for water

### 13 Disposal considerations

- **Product:**
- **Recommendation** Smaller quantities can be disposed of with household waste.

· **European waste catalogue**

18 02 05	chemicals consisting of or containing dangerous substances
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**Trade name: TMB Konzentrat 20x**

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### 14 Transport information

- Land transport ADR/RID (cross-border)
- ADR/RID class: -

- Maritime transport IMDG:
- IMDG Class: -
- Marine pollutant: No

- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: -

### 15 Regulatory information

· **Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

· **National regulations:**

Class	Share in %
I	2.0
II	5.0
NK	90.0

### 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 R-phrases**

23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

· **Department issuing MSDS:** Abteilung Umweltschutz

· **Contact:** Fr. Dr. Sabine Rund

· \* **Data compared to the previous version altered.**

### 1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

- **Trade name:** *TMB Konzentrat 20x*
- **Application of the substance / the preparation**  
*Desalting agent*  
*Additional component*

- **Manufacturer/Supplier:**  
*PROGEN Biotechnik GmbH*  
*Maaßstraße 30*  
*D-69123 Heidelberg*


Tel.: 06221/8278-0

- **Further information obtainable from:** *Abteilung Umweltschutz*

### 2 Composition/information on ingredients

- **Chemical characterization**
- **Description:** *Mixture of substances listed below with nonhazardous additions.*

· **Dangerous components:**

CAS: 67-68-5	dimethyl sulfoxide	 Xi; R 36/38	80.0%
EINECS: 200-664-3			

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

### 3 Hazards identification

· **Hazard description:**



*Xi Irritant*

· **Information concerning particular hazards for human and environment:**

*The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.*  
*R 36/38 Irritating to eyes and skin.*

· **Classification system:**

*The classification is according to the latest editions of the EU-lists, and extended by company and literature data.*

### 4 First aid measures

- **After inhalation:** *In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:**  
*Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*
- **After swallowing:** *If symptoms persist consult doctor.*

### 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
*CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **Protective equipment:** *No special measures required.*

### 6 Accidental release measures

- **Person-related safety precautions:** *Not required.*

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**Trade name: TMB Konzentrat 20x**

(Contd. of page 1)

- **Measures for environmental protection:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in a cool place.

## 8 Exposure controls/personal protection

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

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

### 872-50-4 N-methyl-2-pyrrolidone

OES ()	Short-term value: 309 mg/m <sup>3</sup> , 75 ppm Long-term value: 103 mg/m <sup>3</sup> , 25 ppm Sk
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### 64-19-7 acetic acid

OES ()	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm ILV
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- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 3)

**Trade name: TMB Konzentrat 20x**

(Contd. of page 2)

· **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. 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.

· **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	According to product specification
<b>Odour:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 189°C

· **Flash point:** 95°C

· **Ignition temperature:** 270°C

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

<b>Lower:</b>	1.8 Vol %
<b>Upper:</b>	9.5 Vol %

· **Vapour pressure at 20°C:** 2.5 hPa

· **Density:** Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

· **pH-value at 20°C:** 6.5

· **Solvent content:**

<b>Organic solvents:</b>	80.0 %
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· **Solids content:** 5.0 %

### 10 Stability and reactivity

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

· **Dangerous reactions** No dangerous reactions known.

· **Dangerous decomposition products:** No dangerous decomposition products known.

**Trade name: TMB Konzentrat 20x**

(Contd. of page 3)

### 11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

**67-68-5 dimethyl sulfoxide**

Oral	LD50	14500 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

### 12 Ecological information

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

· **Product:**

· **Recommendation**

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

· **European waste catalogue**

18 02 05	chemicals consisting of or containing dangerous substances
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· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

· **Land transport ADR/RID (cross-border)**

· **ADR/RID class:** -

· **Maritime transport IMDG:**

· **IMDG Class:** -

· **Marine pollutant:** No

· **Air transport ICAO-TI and IATA-DGR:**

· **ICAO/IATA Class:** -

### 15 Regulatory information

· **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· **Code letter and hazard designation of product:**

Xi Irritant

(Contd. on page 5)

**Trade name: TMB Konzentrat 20x**

(Contd. of page 4)

· **Risk phrases:**

36/38 Irritating to eyes and skin.

· **Safety phrases:**

2 Keep out of the reach of children.

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

46 If swallowed, seek medical advice immediately and show this container or label.

56 Dispose of this material and its container to hazardous or special waste collection point.

· **National regulations:**

Class	Share in %
I	2.0
II	5.0
NK	90.0

**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 R-phrases**

36/38 Irritating to eyes and skin.

· **Department issuing MSDS:** Abteilung Umweltschutz

· **Contact:** Fr. Dr. Sabine Rund

· **\* Data compared to the previous version altered.**

### 1 Identification of the substance/preparation and of the company/undertaking

· **Product details**

· **Trade name:** Stopplösung

· **Application of the substance / the preparation** Laboratory chemicals

· **Manufacturer/Supplier:**

PROGEN Biotechnik GmbH

Maaßstraße 30

D-69123 Heidelberg

Tel.: 06221/8278-0


· **Further information obtainable from:** Abteilung Umweltschutz

### 2 Composition/information on ingredients

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 7664-93-9	sulphuric acid	 C; R 35	2.5%
EINECS: 231-639-5			

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

### 3 Hazards identification

· **Hazard description:** Not applicable.

· **Information concerning particular hazards for human and environment:**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 4 First aid measures

· **General information:** No special measures required.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Generally the product does not irritate the skin.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** If symptoms persist consult doctor.

### 5 Fire-fighting measures

· **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Protective equipment:** No special measures required.

### 6 Accidental release measures

· **Person-related safety precautions:** Not required.

· **Measures for environmental protection:** Dilute with plenty of water.

· **Measures for cleaning/collecting:**

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

· **Additional information:** No dangerous substances are released.

**Trade name: Stopplösung**

(Contd. of page 1)

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:** No special measures required.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in a cool place.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients 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 valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. 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.
- **Eye protection:** Goggles recommended during refilling

### 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	According to product specification
<b>Odour:</b>	Characteristic

· **Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** Undetermined.

· **Flash point:** Not applicable.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.

(Contd. on page 3)

**Trade name: Stopplösung**

(Contd. of page 2)

- **Solvent content:**
- Organic solvents:** 0.0 %
- **Solids content:** 100.0 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

### 12 Ecological information

- **General notes:** Generally not hazardous for water

### 13 Disposal considerations

- **Product:**
- **Recommendation** Smaller quantities can be disposed of with household waste.

· <b>European waste catalogue</b>
18 01 07   chemicals other than those mentioned in 18 01 06

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 8 (C1) Corrosive substances.
- **Danger code (Kemler):** 80
- **UN-Number:** 2796
- **Packaging group:** II
- **Hazard label:** 8

(Contd. on page 4)

**Trade name: Stopplösung**

(Contd. of page 3)

· **Description of goods:** 2796 SULPHURIC ACID

· **Maritime transport IMDG:**



- **IMDG Class:** 8
- **UN Number:** 2796
- **Label** 8
- **Packaging group:** II
- **EMS Number:** F-A,S-B
- **Marine pollutant:** No
- **Proper shipping name:** SULPHURIC ACID

· **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 8
- **UN/ID Number:** 2796
- **Label** 8
- **Packaging group:** II
- **Proper shipping name:** SULPHURIC ACID

### 15 Regulatory information

· **Labelling according to EU guidelines:**

*Observe the general safety regulations when handling chemicals.*

*The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).*

· **Special labelling of certain preparations:**

*Safety data sheet available for professional user on request.*

### 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 R-phrases**

*35 Causes severe burns.*

· **Department issuing MSDS:** Abteilung Umweltschutz

· **Contact:** Fr. Dr. Sabine Rund