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## **1. Identification of the substance and of the Company**

### **1.1. Product Identity**

**Trade name:** Medizym® anti-ZnT8

**REF No.:** 3791

### **1.2. Intended use**

Medizym® anti-ZnT8 is an enzyme immunoassay for the quantitative determination of autoantibodies to zinc transporter 8 (ZnT8 Ab) in human serum.

### **1.3. Manufacturer**

MEDIPAN GMBH  
Ludwig-Erhard- Ring 3  
15827 Dahlewitz  
Tel: 0049 33708 44 17-0  
Fax: 0049 33708 44 17-25  
Internet: [www.medipan.de](http://www.medipan.de)  
E-mail: [info@medipan.de](mailto:info@medipan.de)

### **1.4. Emergency number**

MEDIPAN GMBH Phone: +49 033708 44 17-0

## **2. Hazard identification**

### **2.1. Classification of the contents**

The product / product components are, in accordance to EU regulation 1272/2008/EG  
Classified as **non –hazardous.**


### **2.2. Identification elements**

According 1272/2008EG: none

### **2.3. Other hazards**

The product/product components contain preservatives, which in the present concentrations can cause skin sensitization and weak water pollution. As there are always certain dangers associated with chemicals, the product /product components should only be handled by appropriately trained persons, using proper chemical safety precautions.

Results of the PBT/ vPvB-Evaluation: not applicable

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### **3. Composition / Information on ingredients**

#### **3.1. Description of ingredients**

Component	Ingredients	Preservative
Microtiter plate	Coated with ZnT8	
Concentrated wash buffer	NaCl, Tween 20	0.01% Sodium azide
Streptavidin-peroxidase (SA-POD)	Streptavidin-peroxidase	0.01% Sodium azide
Diluent for SA-POD	NaCl, BSA	0.1% Chloroacetamide 0.02% N-Methylisothiazolone
Substrate (TMB)	3.3'5.,5'- Tetramethylbenzidine	0.01% Sodium azide
Stop solution	0.25 M sulfuric acid	
ZnT8-Biotin	NaCl, BSA	0.01% Sodium azide
Diluent for ZnT8-Biotin	NaCl, BSA	0.01% Sodium azide
Calibrators and controls	Verdünntes Humanserum	0.01% Sodium azide

#### **3.2. Hazardous components and their concentrations**

CAS No.	EINECS No.	Ingredient	Percent	Classification (in conc. form) in 1272/2008/EG	
26628-22-8	247-852-1	Sodium azide	< 0.01	T+; N;	Acute tox. 2, H300, EUH032 Aquatic acute 1, H400 Aquat. Chronic 1, H410
79-07-02	201-174-2	Chloroacetamide	0.1	T	Acute tox. 2, H300 Aquatic acute 1, H400 Aquat. Chronic 1, H410
26172-54-3	247-499-3	N-Methylisothiazolone MIT	0.02	T N	Acute tox. 2, H300 Aquatic acute 1, H400 Aquat. Chronic 1, H410
7664-93-9	231-639-5	Sulphuric acid	0.25M	C	Acute tox. 2, H290

The full wording of the listed hazard warnings is given in section 16

### **4. First - Aid Measures**

#### **4.1. Description of first - aid measures**

Due to the very low concentrations of the hazardous ingredients in the product / components, consultation of a doctor is not necessary.

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In cases of contact with skin, wash with copious amounts of water.  
In cases of contact with eyes, rinse out for several minutes with water, with eyelids open.  
In cases of swallowing, rinse out and drink copious amounts of water.

### **4.2. *Important Symptoms and Effects***

There are no known acute or delayed onset symptoms and effects.

### **4.3 *Indications for immediate medical assistance and special treatment***

Not available.

## **5. *Fire-fighting measures***

### **5.1. *Extinguishers***

Extinguishers indicated: water spray, foam, powder.

### **5.2. *Special hazards arising from the contents***

With fire, sodium azide can release poisonous fumes.

### **5.3. *Notes on fire -fighting***

Surround the fire with appropriate extinguishing material.  
If necessary use breathing apparatus and protective clothing for firefighting.

## **6. *Accidental Release Measures***

### **6.1. *Personal precautions***

Observe the safety regulations of the laboratory.  
To minimize the risk of contact with the skin and eyes, wear appropriate protective clothing.  
Do not swallow, do not pipette by mouth.

### **6.2. *Environmental precautions***

Do not release into drains / ground water.

### **6.3. *Methods and materials for containment and cleaning***


Contain spills with absorbent material and dispose of appropriately. Following complete removal of the material, clean the affected area thoroughly.

### **6.4. *Reference to other sections***

Information on appropriate protective clothing can be found in section 8.2.  
For disposal, consult section 13.

## **7. *Handling and Storage***

### **7.1. *Protective measures for safe handling***

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Apart from the usual laboratory safety regulations, no particular protective measures are required. Information on required protective clothing can be found in section 8.2.

## 7.2. **Conditions for safe storage including any incompatibilities**

Keep containers tightly closed. Store in a dry place in the box supplied at a temperature between +2 and +8 °C.

## 7.3. **Specificity and use**

No further relevant information available.

## 8. **Exposure controls / personal protection**

### 8.1. **Parameters/ exposure values to be observed**

CAS No.	Ingredient	MAK or AGW (from TRGS 900)
26628-22-8	Sodium azide	0.2 mg/m <sup>3</sup>
7664-93-9	Sulfuric azide	1 mg/m <sup>3</sup>

With appropriate use of the pack/ pack contents, no air pollution is expected.

### 8.2. **Limitations and monitoring of exposure**


<i>Respiratory protection:</i>	Not required
<i>Gloves:</i>	Nitrile or natural latex laboratory gloves
<i>Eye protection:</i>	Safety goggles
<i>Bodily protection:</i>	Appropriate laboratory wear

Handling of all components has to be done in accordance with Good Laboratory Practice (GLP) regulations.

## 9. **Physical and chemical properties**

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

Kit component	Appearance	Odor	pH	Solubility
Coated wells	Colorless	none	N/A	N/A
ZnT8-Biotin	White solid	none	N/A	In water
Reconstitution Buffer for ZnT8- Biotin	Pink liquid	none	~8.0	N/A
Streptavidin Peroxidase (SA-POD)	Pale brown/yellow liquid	none	N/A	N/A
Diluent for SA-POD	Colorless liquid	none	~7.5	N/A
Peroxidase Substrate (TMB)	Colorless to light blue liquid	none	N/A	N/A
Stop Solution	Colorless liquid	May be slightly sulfurous	<1	N/A
Concentrated Wash Solution	Colorless liquid	none	~7.6	N/A

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Calibrators and Controls	Pale Yellow/brown liquid	none	N/A	N/A
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## 9.2. *Other properties*

Solubility in / miscibility with water: complete

## 10. Stability and reactivity

### 10.1. *Reactivity*

Data is not available on the reactivity of individual kit components but is given, where available, on substances listed in subsection 3.2.

Sulfuric acid is a strong oxidizing agent and has a corrosive effect. There is no data available on the other substances.

### 10.2. *Chemical Stability*

Within the stated storage temperatures and expiry dates, the product/components are chemically stable.

### 10.3. *Possible hazardous reactions*

In high concentrations sodium azide and heavy metals, such as copper and lead, can form explosive complexes.

### 10.4. *Conditions to be avoided*

Peroxidase substrate (TMB) is light sensitive and therefore the bottle should be kept tightly closed when Not in use and stored in a dark place.

### 10.5. *Incompatible materials*

Acids, alkalis and solvents can negatively influence the functional ability of the conjugate.

### 10.6. *Hazardous decomposition products*

Within the stated storage and handling conditions, the product/components produce no known hazardous decomposition products.

## 11. Toxicological information

### 11.1. *Information on toxicological effects*

#### *Acute Toxicity*

Ingredient	Measurand	Value	Species
Sodium azide	LD <sub>50</sub> (oral)	27 mg/kg	Rat
Sulfuric azide	LD <sub>50</sub>	2140 mg/kg	Rat

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**Other health effects**

Ingredient	Irritation and corrosion	Sensitizing	CMR effect
Sodium azide	no data available	no data available	no data available
Sulfuric azide	no data available	no data available	no data available

**12. Ecological information**

**12.1. Toxicity**

Ingredient	Measurand	Value	Spezies
Sodium azide	LD <sub>50</sub>	0.68 mg/l	Sun perch
Sodium azide	EC <sub>50</sub>	4.2 mg/l	Invertebrate (Daphnia pulex)
Sulfuric azide	no data available		

**12.2. Persistence and biodegradability**

Ingredient	Measurand	Value	Remarks
Sodium azide	no data available		
Sulfuric azide	LD <sub>50</sub> 10mg /L/96h		toxic to aquatic organisms due to pH shift

**12.3. Bioaccumulation potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB Analyses**

No data available.

**12.6. Other harmful effects**

Ingredient	Type of effect
Sodium azide	Very poisonous to water organisms

Due to the very low concentration of hazardous ingredients in the product / components, no ecological problems are expected arising from their use.

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### **13. Disposal considerations**

#### **13.1. Disposal methods**

##### **Product components**

May not be disposed of with household waste.

Residues of chemical preparations are usually classed as waste which must be disposed of according to the rules issued by the country and government. Information on the disposal of hazardous waste can be given by the local authorities (agency or authorized waste disposal contractor).

##### **Packaging**

Disposal according to official regulations.

Contaminated packaging should be treated as per the product.

Non-contaminated packaging can be handled as household waste and be recycled, when regulations do not state otherwise.

### **14. Transport information**

This product has no transport regulations.

#### **14.1. UN-number**

Not applicable.

#### **14.2. Proper UN shipping designation**

Not applicable.

#### **14.3. Transport hazard class**

Not applicable.

#### **14.4. Packaging group**

Not applicable.

#### **14.5. Environmental hazard**


Not applicable.

#### **14.6. Special precautions for users**

Not applicable.

#### **14.7. Mass transport in accordance with appendix II MARPOL agreements 73/78 and IBC code**

Not applicable.

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### **15. Regulatory information**

This safety data sheet fulfils the requirements of regulation 1907/2006/EG on the registration, evaluation, authorization and restriction of chemicals, ( REACH ), and the EU regulation 1272/2008/EG on the classification, labeling and packaging of chemicals and mixtures, as well as the regulation (EU) 830/2015 on the production of safety data sheets.

#### **15.1. Safety, health and environmental regulations/ regulations specific to this substance or mixture**

When handling the product, the current regulations for handling potentially infectious human sample material should be observed.

Product classification to 1272/2008/EG: none

### **16. Other Information**

*Full text of section 3.2., listed risk phrases*

EUH032	Produces very poisonous gases on contact with acids.
H290	May be corrosive to metals.
H300	Life-threatening if swallowed
H400	Very poisonous for water organisms
H410	Very poisonous for water organisms with long-term effect

### **Abbreviations and acronyms**

AGW	Workplace limit
CAS	Chemical Abstract Service (division of American Chemical Society)
CLP	Regulation of Classification, Labelling, and Packaging of Substances and Mixtures
CMR	Carcinogenic, mutagenic or reprotoxic
EC50	Effective concentration for 50% of subjects
EINECS	European Inventory of Existing Commercial Chemical Substances
GHS	Globally Harmonized System of Classification and Labelling of Substances
IBC-Code	International Code for the Construction and Equipment of Ships carrying dangerous Chemicals in Bulk
IARC	International Agency for Research on Cancer
LD50	Lethal dose for 50% of subjects
LC50	Lethal concentration for 50% of subjects
MAK	Maximum workplace concentration
MARPOL	International Convention for the Prevention of Pollution from Ships
OEDC	Organisation for Economic Co-operation and Development
PBT/vPvB	Persistent, bioaccumulative, and toxic substances / very persistent and very bioaccumulative substances
REACH	Registration, Evaluation, and Authorisation of Chemicals
TGRS	Technische Regeln für Gefahrstoffe (technical regulations for hazardous chemicals)
USDA	US Department of Agriculture

The information given is based on our most current knowledge. It is intended to describe our products in terms of safety requirements, and should be seen by users as a guide. It does not form a guarantee of any specific product features, and does not constitute a legal relationship or state liability for damages which may arise from handling or having contact with this product/product components.