

## MATERIAL SAFETY DATA SHEET

Mercodia Insulin ELISA

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

**Identification of the product:** Mercodia Insulin ELISA 10-1113-01/10-1113-10

- <sup>A)</sup>20-2622 Coated plate
- <sup>B)</sup>20-2625/20-2631 Enzyme Conjugate 11X 1.2/12 mL
- <sup>C)</sup>20-2627/20-2630 Enzyme Conjugate Buffer 12/120 mL
- <sup>D)</sup>20-2615 Calibrator 0.5 mL
- <sup>E)</sup>20-2616-20-2620 Calibrator 1- 5 1 mL
- <sup>F)</sup>20-2629/20-3136 Substrate TMB 22/220 mL
- <sup>G)</sup>20-6746/20-3194 Wash Buffer 21X 50/400 mL
- <sup>H)</sup>20-2693/20-2694 Stop Solution 7/70 mL

**Use of the product:** The test provides a method for determination of human Insulin in serum or plasma.

**Company / undertaking Identification:** Mercodia AB  
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### 2. Hazards identification

**Health:** The product is not judged to be hazardous to health, although it may cause sensitisation by skin contact. May have a slight irritating effect on skin and eye contact as well as by inhalation- see further section 11.

**Environment:** The product is not judged to be dangerous for the environment but the product contains very small amounts of a substance very toxic to the aquatic organisms and may cause long-term adverse effects in the aquatic environment.

**Fire:** The product is not classified as flammable.

### 3. Composition / information on ingredients

Water based buffers containing the following hazardous substance (-s):

**Hazardous ingredients:**

<b>Sulphuric acid</b>	<b>Conc %</b>	<b>Classification<sup>3)</sup></b>
Index-No: 016-020-00-8	1-5	Skin Corrosion 1A; H314*
CAS-No: 7664-93-9		C; R35**
EC-No: 231-639-5		

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<b>Kathon CG<sup>1)</sup></b> Index-No: 613-167-00-5 CAS-No: 55965-84-9 EC-No: -	<b>Conc %</b> <sup>2)</sup>	<b>Classification<sup>3)</sup></b> Acute Toxicity 3; H331* Acute Toxicity 3; H311* Acute Toxicity 3; H301* Skin Corrosion 1B; H314* Skin Sensitisation 1; H317* Aquatic Acute 1; H400* Aquatic Chronic 1; H410* T; R23/24/25** C; R34,R43** N; R50-R53**
<p>1) Hazardous components are 5-chloro-2-methyl-2H-isothiazol-3-one (EG-nr 247-500-7) and 2-methyl-2H-isothiazol-3-one (EG-nr 220-239-6) as a 3:1 mixture, CAS No 55965-84-9</p> <p>2) See further description in section 16</p> <p>3) See description of Hazard statement codes and risk phrases in section 16</p> <p>* EC 1272/2008          ** EC 67/548/EEC, 1999/45/EC</p>		

#### 4. First aid measures

<b><u>Inhalation:</u></b>	Breathe fresh air and rest. If breathing is difficult, give oxygen.
<b><u>Skin contact:</u></b>	Remove contaminated clothing. Wash the affected area with soap and water.
<b><u>Eye contact:</u></b>	Rinse immediately with copious amount of water for at least 15 minutes with the eyelid held wide open. Consult a doctor if symptoms persist.
<b><u>Ingestion:</u></b>	Rinse mouth and throat with water. Consult a doctor if symptoms persist. Never give anything to drink / eat to an unconscious person.
<b><u>Information to physician:</u></b>	-

#### 5. Fire-fighting measures

<b><u>Extinguishing media:</u></b>	The product will not burn.
<b><u>Specific hazards:</u></b>	Remove if possible adjacent containers or keep cool by spraying with water in case of heat / fire, harmful oxides may evolve.
<b><u>Protective equipment for fire fighters:</u></b>	Suitable protective equipment. Self-contained breathing apparatus may be needed in confined spaces.

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#### 6. Accidental release measures

<b><u>Personal precautions:</u></b>	See "Handling", section 7 and "personal protection" section 8.
<b><u>Environmental precautions:</u></b>	No special precaution is necessary, although discharge in sewerage systems, surface and ground water should be prevented.
<b><u>Methods for cleaning up:</u></b>	Clean up with absorbent paper and dispose of in a sealed container according to current waste regulations, see section 13.
<b><u>Remarks:</u></b>	-

#### 7. Handling and storage

<b><u>Handling:</u></b>	Ensure good ventilation. Direct physical contact with all components in this product should be avoided, avoid ingestion.
<b><u>Storage:</u></b>	Keep container tightly closed and in a cool place. Keep from freezing. <sup>F)</sup> Protect from light.
<b><u>Specific use (-s):</u></b>	-

#### 8. Exposure control/personal protection

**Exposure limit values:**

Occupational exposure Limits exists for the following substances (acc. to 29 CFR 1910.1000 TABLE Z-1):

<u>Substance</u>	<u>OEL*</u>
(Unit)	ppm mg/m <sup>3</sup>
<sup>H)</sup> Sulphuric acid	- 1

\*long-term exposure limit (8 hours TWA)

**Note:**

**Exposure controls:** Ensure good ventilation. Avoid, if possible, direct contact with the product. An emergency shower and/or an eye bath should be available in the workplace.

**Occupational exposure controls:**

<b><u>Respiratory protection:</u></b>	Not normally necessarily. If any, respiratory protective equipment suitable for the specific conditions may be used.
<b><u>Hand protection:</u></b>	Chemical resistant gloves (butyl rubber, PE or PVC) may be used if risk of direct contact may occur.
<b><u>Eye protection:</u></b>	Use chemical safety goggles where splashing is possible.
<b><u>Skin protection:</u></b>	Not relevant.
<b><u>Other:</u></b>	Laboratory coat.

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<b><u>Environmental exposure controls:</u></b>	None known.
<b>9. Physical and chemical properties</b>	
<b>Appearance:</b>	B), C), D), E), F), G), and H) Liquid, A) Solid
<b>Colour:</b>	B), F), G) and H) Colourless C) Blue and D), E) Yellow.
<b>Odour:</b>	Odourless
<b>Relative Density (g/cm<sup>3</sup>)</b>	B), C), D), E), F) and G) 1.0 and H) 1.1
<b>Flash Point (°C)</b>	N.A.
<b>Boiling Point (°C)</b>	appr. 100
<b>Ignition temperature (°C)</b>	N.A.
<b>Explosive Limits (vol %):</b>	N.A.
<b>Solubility in Water:</b>	Soluble
<b>pH:</b>	B), C), D), E) and G) appr. 7 F) appr. 3.3 and H) appr. 0.5
N.A. = Not Applicable	
<b>10. Stability and reactivity</b>	
<b><u>Stability:</u></b>	Stable under normal conditions.
<b><u>Conditions to avoid:</u></b>	None known
<b><u>Materials to avoid:</u></b>	None known
<b><u>Hazardous decomposition Products:</u></b>	Insufficient combustion may form harmful oxides such as sulphur oxides, carbon oxides, nitrogen oxides, chloro oxides, phosfo oxides etc.
<b>11. Toxicological information</b>	
<b><u>General:</u></b>	Data is lacking on the product. The product is not judged to be hazardous to health. It might have a slight irritating effect on skin and eye contact as well as by inhalation. Certain risk for severe eye damages cannot entirely be excluded. The product is also judged on the basis of one of the content, as possible risk for skin sensitisation.
<b><u>Inhalation:</u></b>	Relatively harmless. Certain mild irritation may occur in the respiratory systems.
<b><u>Skin contact:</u></b>	May cause mild irritation. Certain risk for an allergic reaction may occur.
<b><u>Eye contact:</u></b>	Splash and steam may cause mild pain and irritation. Certain risk for severe eye damages can not entirely be excluded.
<b><u>Ingestion:</u></b>	Certain risk for mild irritation in mucous membranes in stomache and intestine may occur.

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<b><u>Others:</u></b>	<p><sup>B)</sup>May be harmful if ingested in quantity.</p> <p><sup>H)</sup>Sulphuric acid 96 %:</p> <p style="padding-left: 40px;">LD<sub>50</sub>(oral, rat) 2 140 mg/kg</p> <p>The product is diluted. The content of hazardous component is small. A minor irritating effect still remains, in spite of the dilution. The content of Kathon CG cause the product its classification as a skin sensitiser.</p>
<b>12. Ecological information</b>	
<p><b><u>Ecotoxicity:</u></b></p> <p><b><u>Mobility:</u></b></p> <p><b><u>Persistence and degradability:</u></b></p> <p><b><u>Bioaccumulative potential:</u></b></p> <p><b><u>Other adverse effects:</u></b></p> <p><b><u>Remarks:</u></b></p>	<p>Data is lacking on the product. Is judged to be of low toxicity to aquatic organism.</p> <p><sup>H)</sup>Sulphuric acid 96%:</p> <p style="padding-left: 40px;">LC<sub>50</sub> (fish, 96h) 42 mg/L (mosquito fish)</p> <p style="padding-left: 40px;">EC<sub>50</sub> (daphnia, 48h) &gt;29 mg/L</p> <p>Data is lacking. The product is soluble in water.</p> <p>Data is lacking. The product contains mainly water. For the inorganic substances, existing in very small amounts, there are no criteria for biodegradability.</p> <p><sup>H)</sup> is being proteolysed to H<sup>+</sup> and SO<sub>4</sub><sup>2-</sup>.</p> <p>Data is lacking. The product is judged not to be potential bioaccumulated. The organic part is judged to be easily biodegradable. Note! The product contains a small amount of a complex binder (EDTA) in the amount of 0.4 % which slowly biodegrades in nature.</p> <p>None known.</p> <p>Relevant data of analysis on the product is lacking. The information given above is based on knowledge of the ecotoxicology of the components. The product is judged neither to be dangerous for the environment, nor to cause long-term adverse effects in the aquatic environment. The low pH might harm the aquatic organisms.</p>
<b>13. Disposal considerations</b>	
<b><u>The product:</u></b>	<p>Discarded product (incl. Contaminated packaging) and related waste is not hazardous waste acc. to current waste legislation. For disposal contact approved waste Management Company. Requirements for certain permission exists – see current waste legislation.</p> <p>Propose EWC-code: 18 01 07 Wastes from natural care, diagnosis, treatment or prevention of disease in humans, chemicals other than those mentioned in 18 01 06.</p> <p>Note! In used kit there might be a plastic plate with rests of</p>

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<p><b><u>Emptied packaging:</u></b></p> <p><b><u>Emptying instruction:</u></b></p>	<p>blood which can be allotted an EWC-code 18 01 03* (Wastes from natural care, diagnosis, treatment on prevention of disease in humans, waste whose collection and disposal is subject to special requirements in view of prevention of infection.)</p> <p>Glass bottles exclusive of lids and fibreboard boxes may be sent to material recycling – see ”Emptying instruction” below.</p> <p>Deliver empty glass bottles completely free of drip to glass recycling while fibreboard boxes can be delivered to relevant material recycling.</p>
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#### 14. Transport information

The product is not classified as Dangerous Goods acc. to current transport legislation (ADR/RID, DGR and IMDG code).

#### 15. Regulatory information

(Acc. to 2001/58/EC)

**Classification and labelling:**

The product is not classified as health- and/or environmentally hazardous acc. to current legislation. The product does contain substances that have an occupational exposure limit and also is classified as health- and/or environmentally hazardous with a content of  $\geq 1\%$ . Therefore there is a demand for a Material Safety Data Sheet.

Other national regulations:      Relevant Workplace legislation due to the Occupational Exposure Limit

#### 16. Other information

Revised in section (-s):              Version 2010-10-18 is rewritten in sections 3, 8 and 16.

Section 3:

Kathon CG is a mixture of substances where two of the components, 5-chloro-2-methyl-2H-isothiazol-3-one (EG-nr 247-500-7) and 2-methyl-2H-isothiazol-3-one (EG-nr 220-239-6), in a mixture with the proportion 3:1 has a CAS No 55965-84-9 with the classification as stated in section 3.

The content of this mixture in the Kathon CG is 1.35-1.65 w-% which gives the content of 0.0020-0.0025 w-% of the dangerous mixture in the product.

*H331                      = Toxic if inhaled.*  
*H311                      = Toxic in contact with skin.*  
*H301                      = Toxic if swallowed.*  
*H314                      = Causes severe skin burns and eye damage.*

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<i>H317</i>	<i>= May cause an allergic skin reaction.</i>
<i>H400</i>	<i>= Very toxic to aquatic life.</i>
<i>H410</i>	<i>= Very toxic to aquatic life with long lasting effects.</i>
<i>R 23/24/25</i>	<i>= Toxic by inhalation, contact with skin and if swallowed</i>
<i>R 34</i>	<i>= Causes burns</i>
<i>R 35</i>	<i>= Causes severe burns</i>
<i>R 43</i>	<i>= May cause sensitisation by skin contact</i>
<i>R 50-53</i>	<i>= Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment</i>

The above information is believed to be correct and may not be all conclusive; however, it should only be used as a guide. Mercodia AB or Mercodia Inc. shall not be held liable for any damage resulting from handling or contact with the above product.