

## SAFETY DATA SHEET

### Mercodia Ultrasensitive Rat Insulin ELISA

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

<b>1.1 Product Identifier</b>	Mercodia Ultrasensitive Rat Insulin ELISA 10-1251-01 - <sup>A</sup> 20-3193                      Coated plate - <sup>B</sup> 20-3139                      Enzyme Conjugate 11X 1.3 mL - <sup>C</sup> 20-3191                      Enzyme Conjugate Buffer 13 mL - <sup>D</sup> 20-3166                      Calibrator 0 5 mL - <sup>E</sup> 20-3169, 20-3172 20-3175, 20-3178, 20-3181                      Calibrator 1- 5 1 mL - <sup>F</sup> 20-2629                      Substrate TMB 22 mL - <sup>G</sup> 20-6746                      Wash Buffer 21X 50 mL - <sup>H</sup> 20-2693                      Stop Solution 7 mL
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**1.2 Relevant identified use of the substance or mixture and uses advised against**  
 The test provides a method for determination of Insulin in rat serum or plasma.

**1.3 Details of the supplier of the safety data sheet**  
 Mercodia AB  
 Sylveniusgatan 8A  
 754 50 UPPSALA, SWEDEN  
 tel: +46 (0) 18-57 00 70  
 fax: +46 (0) 18-57 00 80  
 e-mail: info@mercodia.se

**1.4 Emergency telephone**                      tel: +46 (0) 18-57 00 70

#### SECTION 2: Hazards identification

**2.1a Classification of the substance or mixture (Sulphuric acid)**

Included in solution <sup>H</sup>)  
 OSHA/HCS status:                      This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
   H315 SKIN IRRITATION - Category 2  
   H318 SERIOUS EYE DAMAGE - Category 1

**2.2a Label elements (Sulphuric acid)**




Signal word:                                      Danger  
 Hazard statements:                      H318 - Causes serious eye damage.  
   H315 - Causes skin irritation.

**Precautionary statements**

Prevention:                                      P280 - Wear protective gloves. Wear eye or face protection.

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Response:	<p>P264 - Wash hands thoroughly after handling.  P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.  P332 + P313 - If skin irritation occurs: Get medical attention.  P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  Immediately call a POISON CENTER or physician.</p>
Storage:	Not applicable
Disposal:	Not applicable
<b>2.1b Classification of the substance or mixture (Kathon CG)</b>	
	<p>Included in solutions C), D) E) and G)  H317 skin sensitization - Category 1  See Section 16 for the full text of the H statements declared above.  See Section 11 for more detailed information on health effects and symptoms.</p>
<b>2.2b Label elements (Kathon CG)</b>	
	
Signal word:	Warning
Hazard statement:	H317 – May cause an allergic skin reaction
<b>Precautionary statements</b>	
Prevention	<p>P280 – Wear protective gloves.  P261 - Avoid breathing vapour.  P272 - Contaminated work clothing should not be allowed out of the workplace.</p>
Response	<p>P302 + P352 - if on skin: Wash with plenty of soap and water.  P333 + P313 - If skin irritation or rash occurs: Get medical attention.</p>
Storage	Not applicable.
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)
Supplemental label elements	Not applicable
<b>Special packaging requirements</b>	
Tactile warning of danger	Not applicable

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#### 2.3 Other hazards

None known

### SECTION 3: Composition / information on ingredients

#### 3.2 Mixtures

##### Hazardous ingredients:

<b>Sulphuric acid<sup>1)</sup></b>	<b>Conc %</b>	<b>Classification<sup>2)</sup></b>
Index-No: 016-020-00-8	1-5	Skin Corrosion 1A; H314
CAS-No: 7664-93-9		
EC-No: 231-639-5		

<b>Kathon CG<sup>3)</sup></b>	<b>Conc %</b>	<b>Classification<sup>2)</sup></b>
Index-No: 613-167-00-5	0.15 <sup>3)</sup>	Acute Toxicity 3; H331
CAS-No: 55965-84-9		Acute Toxicity 3; H311
EC-No: -		Acute Toxicity 3; H301
		Skin Corrosion 1B; H314
		Skin Sensitisation 1; H317
		Aquatic Acute 1; H400
		Aquatic Chronic 1; H410

- 1) Included in solution <sup>H)</sup>.
- 2) Classification according to (EC)1272/2008. See description of Hazard statements and precautionary statements in section 16.
- 3) Included in solutions <sup>C)</sup>, <sup>D)</sup>, <sup>E)</sup> and <sup>G)</sup>.  
 Kathon CG is a mixture of substances where two of the components, 5-chloro-2-methyl-4-isothiazolin-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. The content of this mixture in the Kathon CG is 1.5 w-% which gives the content of 0.0023 w-% of the dangerous mixture in the product.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>Inhalation:</b>	Breathe fresh air and rest. If breathing is difficult, give oxygen.
<b>Skin contact:</b>	Remove contaminated clothing. Wash the affected area with soap and water.
<b>Eye contact:</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>Ingestion:</b>	Rinse mouth and throat with water. Consult a doctor if symptoms persist. Never give anything to drink / eat to an unconscious person.

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**4.2a Most important symptoms and effects, both acute and delayed**

**Potential acute health effects (Sulphuric acid)**

Eye contact:	Causes serious eye damage
Inhalation:	No known significant effects or critical hazards
Skin contact:	Causes skin irritation
Ingestion:	No known significant effects or critical hazards

**4.2b Most important symptoms and effects, both acute and delayed**

**Potential acute health effects (Kathon CG)**

Eye contact:	No known significant effects or critical hazards
Inhalation:	No known significant effects or critical hazards
Skin contact:	May cause an allergic skin reaction
Ingestion:	No known significant effects or critical hazards

**4.3 Indication of any immediate medical attention and special treatment needed**

Notes to physician:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments:	No specific treatment.

**SECTION 5: Fire-fighting measures**

**5.1 Extinguishing media**

Water, carbon dioxide, powder, foam.

**5.2 Special hazards arising from the substance or mixture**

Decomposition products may include the following materials: carbon dioxide, carbon monoxide and sulphur oxide

**5.3 Advice for firefighters**

No action shall be taken involving any personal risk or without suitable training.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

See "Precautions for safe handling", section 7.1 and "Exposure controls" section 8.2.

**6.2 Environmental precautions**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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

Clean up with absorbent paper and dispose of in a sealed container.

**6.4 Reference to other sections**

See Section 1 for emergency contact information.  
 See Section 8 for information on appropriate personal protective equipment.  
 For current waste regulations, see section 13.

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#### SECTION 7: Handling and storage

##### 7.1 Precautions for safe handling

Put on appropriate personal protective equipment (see Section 8).

Ensure good ventilation. Direct physical contact with all components in this product should be avoided.

##### 7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed and at 2-8°C. Keep from freezing. <sup>F)</sup>Protect from light.

##### 7.3 Specific end use(s)

Industrial applications. Professional applications.

#### SECTION 8: Exposure control/personal protection

##### 8.1 Control parameters

Occupational exposure Limits exists for the following substances:

Substance (Unit)	Limit value – Eight hours		Limit value – Short term	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
<sup>H)</sup> Sulphuric acid	-	0,05 – 1*	-	0,1 – 3*

\*see current national legislation for details.

##### 8.2 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.

##### Engineering controls:

Not applicable for the mixtures.

##### Eye/face protection:

Use chemical safety goggles where splashing is possible.

##### Skin protection

##### Hand protection:

Chemical resistant gloves (butyl rubber, PE or PVC) may be used if risk of direct contact may occur.

##### Respiratory protection:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification.

##### Thermal hazards:

None known

##### Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation

#### SECTION 9: Physical and chemical properties

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

##### Appearance:

B), C), D), E), F), G), and H) Liquid, <sup>A)</sup> Solid

##### Colour:

B), F), G) and H) Colourless <sup>C)</sup>Blue and <sup>D), E)</sup>Yellow.

##### Odour:

Odourless

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<b>Odour threshold:</b>	Not available.
<b>pH:</b>	B), C), D), E) and G) appr. 7 <sup>F)</sup> appr. 4 and <sup>H)</sup> appr. 0.5
<b>Melting point/Freezing point:</b>	Approximately 0 °C
<b>Initial boiling point and Flash Point (°C)</b>	Not available.
<b>Evaporation rate:</b>	Not available.
<b>Flammability (solid, gas):</b>	Not available.
<b>Upper/lower flammability or explosive limits:</b>	Not available.
<b>Vapour pressure:</b>	Not available.
<b>Vapour density:</b>	Not available.
<b>Relative Density (g/cm<sup>3</sup>)</b>	B), C), D), E), F), G), and H) Approximately 1
<b>Solubility (ies):</b>	Soluble in water
<b>Partition coefficient; N-octanol/water:</b>	Not available.
<b>Auto-ignition temperature:</b>	Not available.
<b>Decomposition temperature:</b>	Not available.
<b>Viscosity:</b>	Not available.
<b>Explosive properties:</b>	Not available.
<b>Oxidising properties:</b>	Not available.
<b>9.2 Other information</b>	No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	No specific test data related to reactivity available for this product or its ingredients
<b>10.2 Chemical stability</b>	Stable under normal conditions.
<b>10.3 Possibility of hazardous reactions</b>	Under normal conditions of storage and use, hazardous reactions will not occur
<b>10.4 Conditions to avoid</b>	No specific data
<b>10.5a Incompatible materials (Sulphuric acid)</b>	Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis
<b>10.5b Incompatible materials (Kathon CG)</b>	May react or be incompatible with oxidizing materials.
<b>10.6 Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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#### SECTION 11: Toxicological information

##### 11.1 Information on toxicological effects

<b>Acute toxicity</b>	Sulphuric acid, LD50 Oral, Rat, Dose 2140 mg/kg 5-chloro-2-methyl-4-isothiazolin-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, LD50 Oral, Rat, Dose 53 mg/kg
<b>Irritation</b>	Sulphuric acid, Eyes – Severe irritant, Rabbit, Exposure 250 Micrograms Sulphuric acid, Eyes – Severe irritant, Rabbit, 0.5 minutes 5 milligrams. 5-chloro-2-methyl-4-isothiazolin-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. Not available.
<b>Sensitization</b>	Sulphuric acid, Not available. 5-chloro-2-methyl-4-isothiazolin-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, Possible risk for allergic reaction may occur.
<b>Repeated dose toxicity</b>	Not available.
<b>Carcinogenicity</b>	Not available.
<b>Mutagenicity</b>	Not available.
<b>Toxicity for reproduction</b>	Not available.
<b>Potential acute health effects</b>	<b>Sulphuric acid</b>
Eye contact	Causes serious eye damage.
Inhalation	No known significant effects or critical hazards.
Skin contact	Causes skin irritation.
Ingestion	No known significant effects or critical hazards.
<b>Potential acute health effects</b>	<b>5-chloro-2-methyl-4-isothiazolin-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.</b>
Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin contact	May cause an allergic skin reaction.
Ingestion	No known significant effects or critical hazards.

#### SECTION 12: Ecological information

##### 12.1 Toxicity

<sup>H)</sup>Sulphuric acid 96%:  
 LC<sub>50</sub> (fish, 96h) 42 mg/L (mosquito fish)  
 EC<sub>50</sub> (daphnia, 48h) >29 mg/L

##### 12.2 Persistence and degradability

Not available.  
<sup>H)</sup> is being proteolysed to H<sup>+</sup> and SO<sub>4</sub><sup>2-</sup>.

##### 12.3 Bioaccumulative potential

Not available.

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<b>12.4 Mobility in soil</b>	Not available.
<b>12.5 Results of PBT and vPvB assessment</b>	Not applicable.
<b>12.6 Other adverse effects</b>	No known significant effects or critical hazards.

#### SECTION 13: Disposal considerations

<b>13.1 Waste treatment methods</b>	
<b>Product:</b>	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. 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. Note! In used kit there might be a plastic plate with rests of 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.
<b>Packaging:</b>	
<b>Methods of disposal:</b>	The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
<b>Special precautions:</b>	This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

#### SECTION 14: Transport information

<b>Regulatory information</b>	
<b>ADR/RID / IMDG / IATA</b>	Not regulated
<b>14.6 Special precautions for user</b>	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC code</b>	Not available.



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#### SECTION 15: Regulatory information

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

**EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorization Annex XIV**      None of the components are listed

**Substances of very high concerns**  
None of the components are listed

**National inventory:**                      United States: All components are listed or exempted.

##### 15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments might still be required.

#### SECTION 16: Other information

Revised in section (-s):                      Version 2017-06-28 is rewritten with the addition of pictograms for Kathon CG and Sulphuric acid and all consequences thereof.

Key literature references and sources for data:  
(EC) 1272/2008, Supplier's SDS

##### List of hazard statements and precautionary statements:

- H331                      = Toxic if inhaled.
  - H311                      = Toxic in contact with skin.
  - H301                      = Toxic if swallowed.
  - H314                      = Causes severe skin burns and eye damage.
  - H317                      = May cause an allergic skin reaction.
  - H400                      = Very toxic to aquatic life.
  - H410                      = Very toxic to aquatic life with long lasting effects.
- Skin Corr. 1A, H314 = SKIN CORROSION/IRRITATION - Category 1A

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.