

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 7.3

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

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

### 1.1 Product identifiers

Product name : Monoclonal Anti-Rabbit Immunoglobulins–  
Peroxidase, antibody produced in mouse

Product Number : A2074

Brand : Sigma

REACH No. : This product is a mixture. REACH Registration Number see  
section 3.

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

Identified uses : Laboratory chemicals, Manufacture of substances

Uses advised against : For R&D use only. Not for pharmaceutical, household or other  
uses.

### 1.3

CHEMIKART

### 1.4 Emergency telephone

Emergency Phone # : 000 800 1007 141 (CHEMTREC)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Skin sensitization, (Category 1) H317: May cause an allergic skin reaction.

### 2.2 Label elements

**Labelling according Regulation (EC) No 1272/2008**

Pictogram

Signal Word Warning

Hazard Statements

H317 May cause an allergic skin reaction.

#### Precautionary Statements

|                                |                                                                        |
|--------------------------------|------------------------------------------------------------------------|
| P261                           | Avoid breathing dust.                                                  |
| P272                           | Contaminated work clothing should not be allowed out of the workplace. |
| P280                           | Wear protective gloves.                                                |
| P302 + P352                    | IF ON SKIN: Wash with plenty of water.                                 |
| P333 + P313                    | If skin irritation or rash occurs: Get medical advice/ attention.      |
| P362 + P364                    | Take off contaminated clothing and wash it before reuse.               |
| Supplemental Hazard Statements | none                                                                   |

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### Ecological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Synonyms : Monoclonal Anti-Rabbit Immunoglobulins (IgG, IgA, IgM)

| Component                            |                       | Classification                                                                                                                                                                                                                                                                            | Concentration      |
|--------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>peroxidase</b>                    |                       |                                                                                                                                                                                                                                                                                           |                    |
| CAS-No.                              | 9003-99-0             | Resp. Sens. 1; H334                                                                                                                                                                                                                                                                       | >= 0,1 - < 1 %     |
| EC-No.                               | 232-668-6             |                                                                                                                                                                                                                                                                                           |                    |
|                                      | *                     |                                                                                                                                                                                                                                                                                           |                    |
| <b>2-Methyl-4-isothiazolin-3-one</b> |                       |                                                                                                                                                                                                                                                                                           |                    |
| CAS-No.                              | 2682-20-4             | Acute Tox. 3; Acute Tox. 2; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1A; Aquatic Acute 1; Aquatic Chronic 1; H301, H330, H311, H314, H318, H317, H400, H410<br>Concentration limits:<br>>= 0,0015 %: Skin Sens. 1A, H317;<br>M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1 | >= 0,025 - < 0,1 % |
| EC-No.                               | 220-239-6             |                                                                                                                                                                                                                                                                                           |                    |
| Registration number                  | 01-2120764690-50-XXXX |                                                                                                                                                                                                                                                                                           |                    |
|                                      |                       |                                                                                                                                                                                                                                                                                           |                    |

\*A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, or the annual tonnage does not require a registration.

For the full text of the H-Statements mentioned in this Section, see Section 16.

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## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

No data available

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Nature of decomposition products not known.

Mixture with combustible ingredients.

Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### 5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## **SECTION 6: Accidental release measures**

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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

For disposal see section 13.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

For precautions see section 2.2.

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

#### **Storage conditions**

Tightly closed. Dry.

**Storage stability** Recommended storage temperature

2 - 8 °C

#### **Storage class**

Storage class (TRGS 510): 11: Combustible Solids

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

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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

### **8.1 Control parameters**

#### **Ingredients with workplace control parameters**

### **8.2 Exposure controls**

#### **Personal protective equipment**

##### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

##### **Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber  
Minimum layer thickness: 0,11 mm  
Break through time: 480 min  
Material tested:KCL 741 Dermatril® L

Splash contact  
Material: Nitrile rubber  
Minimum layer thickness: 0,11 mm  
Break through time: 480 min  
Material tested:KCL 741 Dermatril® L

**Body Protection**  
protective clothing

**Respiratory protection**

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Control of environmental exposure**

Do not let product enter drains.

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**SECTION 9: Physical and chemical properties**

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

- |                                                 |                                                                                  |
|-------------------------------------------------|----------------------------------------------------------------------------------|
| a) Physical state                               | powder, (lyophilized)                                                            |
| b) Color                                        | No data available                                                                |
| c) Odor                                         | No data available                                                                |
| d) Melting point/freezing point                 | No data available                                                                |
| e) Initial boiling point and boiling range      | No data available                                                                |
| f) Flammability (solid, gas)                    | No data available                                                                |
| g) Upper/lower flammability or explosive limits | No data available                                                                |
| h) Flash point                                  | No data available                                                                |
| i) Autoignition temperature                     | No data available                                                                |
| j) Decomposition temperature                    | No data available                                                                |
| k) pH                                           | No data available                                                                |
| l) Viscosity                                    | Viscosity, kinematic: No data available<br>Viscosity, dynamic: No data available |

- |                                              |                              |
|----------------------------------------------|------------------------------|
| m) Water solubility                          | No data available            |
| n) Partition coefficient:<br>n-octanol/water | No data available            |
| o) Vapor pressure                            | No data available            |
| p) Density                                   | No data available            |
| Relative density                             | No data available            |
| q) Relative vapor<br>density                 | No data available            |
| r) Particle<br>characteristics               | No data available            |
|                                              |                              |
| s) Explosive properties                      | Not classified as explosive. |
| t) Oxidizing properties                      | none                         |

## 9.2 Other safety information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Violent reactions possible with:

Violent reactions possible with:

The generally known reaction partners of water.

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

Strong oxidizing agents, Strong acids

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Mixture

#### Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

No data available

**Respiratory or skin sensitization**

Mixture may cause an allergic skin reaction.

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information****Endocrine disrupting properties****Product:**

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

This product is lyophilized from a buffer solution which when in solid form may cause irritation.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

**Components****peroxidase****Acute toxicity**

Oral: No data available

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**

Skin - Rabbit

Result: No irritation - 4 h  
(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Result: negative

Test Type: Ames test

Test system: *S. typhimurium*

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**2-Methyl-4-isothiazolin-3-one**

**Acute toxicity**

LD50 Oral - Rat - male and female - 285,5 mg/kg

(OECD Test Guideline 401)

Acute toxicity estimate Oral - 285,5 mg/kg

(ATE value derived from LD50/LC50 value)

LC50 Inhalation - Rat - male and female - 4 h - 0,11 mg/l - dust/mist

(OECD Test Guideline 403)

Acute toxicity estimate Inhalation - 0,11 mg/l - dust/mist

(ATE value derived from LD50/LC50 value)

LD50 Dermal - Rat - male and female - 242 mg/kg

(OECD Test Guideline 402)

Acute toxicity estimate Dermal - 242 mg/kg

(ATE value derived from LD50/LC50 value)

**Skin corrosion/irritation**

Skin - Rabbit

Result: Causes burns.

(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Remarks: Causes serious eye damage.

**Respiratory or skin sensitization**

Buehler Test - Guinea pig

Result: positive

(OECD Test Guideline 406)

Local lymph node assay (LLNA) - Mouse



Result: positive  
(OECD Test Guideline 429)  
Maximization Test - Guinea pig  
Result: positive  
(OECD Test Guideline 406)

**Germ cell mutagenicity**

Test Type: Ames test  
Test system: *S. typhimurium*  
Result: negative  
Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster ovary cells  
Result: negative  
Test Type: In vitro mammalian cell gene mutation test  
Test system: Chinese hamster ovary cells  
Result: negative  
Test Type: Chromosome aberration test in vitro  
Test system: Human lymphocytes  
Result: negative  
Method: OECD Test Guideline 486  
Species: Rat - male

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

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## SECTION 12: Ecological information

### 12.1 Toxicity

**Mixture**

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

**Product:**

Assessment : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 12.7 Other adverse effects

No data available

### Components

#### peroxidase

|                                                     |                                                                                               |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Toxicity to daphnia and other aquatic invertebrates | static test EC50 - Daphnia magna (Water flea) - 92,7 mg/l - 48 h<br>(OECD Test Guideline 202) |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------|

|                   |                                                                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to algae | static test ErC50 - Algae - 624,6 mg/l - 72 h<br>(OECD Test Guideline 201)<br><br>static test NOEC - Algae - 488 mg/l - 72 h<br>(OECD Test Guideline 201) |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 2-Methyl-4-isothiazolin-3-one

|                  |                                                                                                              |
|------------------|--------------------------------------------------------------------------------------------------------------|
| Toxicity to fish | flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 4,77 mg/l - 96 h<br>(OECD Test Guideline 203) |
|------------------|--------------------------------------------------------------------------------------------------------------|

|                                                     |                                                                                                     |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Toxicity to daphnia and other aquatic invertebrates | flow-through test EC50 - Daphnia magna (Water flea) - 0,85 mg/l - 48 h<br>(OECD Test Guideline 202) |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------|

|                   |                                                                                          |
|-------------------|------------------------------------------------------------------------------------------|
| Toxicity to algae | static test EC50 - Skeletonema costatum - 0,069 mg/l - 96 h<br>(OECD Test Guideline 201) |
|-------------------|------------------------------------------------------------------------------------------|

|                      |                                                                                  |
|----------------------|----------------------------------------------------------------------------------|
| Toxicity to bacteria | static test EC50 - activated sludge - 41 mg/l - 3 h<br>(OECD Test Guideline 209) |
|----------------------|----------------------------------------------------------------------------------|

|                                                                        |                                                                                                      |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | flow-through test NOEC - Daphnia magna (Water flea) - 0,044 mg/l - 21 d<br>(OECD Test Guideline 211) |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

No data available

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

**14.2 UN proper shipping name**

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

**14.3 Transport hazard class(es)**

ADR/RID: -

IMDG: -

IATA: -

**14.4 Packaging group**

ADR/RID: -

IMDG: -

IATA: -

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

No data available

**Further information**

Not classified as dangerous in the meaning of transport regulations.

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**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**Authorisations and/or restrictions on use****Other regulations**

Take note of Dir 94/33/EC on the protection of young people at work.

**15.2 Chemical Safety Assessment**

For this product a chemical safety assessment was not carried out

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**SECTION 16: Other information****Full text of H-Statements**

|        |                                                                            |
|--------|----------------------------------------------------------------------------|
| H301   | Toxic if swallowed.                                                        |
| H311   | Toxic in contact with skin.                                                |
| H314   | Causes severe skin burns and eye damage.                                   |
| H317   | May cause an allergic skin reaction.                                       |
| H318   | Causes serious eye damage.                                                 |
| H330   | Fatal if inhaled.                                                          |
| H334   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H400   | Very toxic to aquatic life.                                                |
| H410   | Very toxic to aquatic life with long lasting effects.                      |
| EUH071 | Corrosive to the respiratory tract.                                        |

## Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Classification of the mixture

Skin Sens.1

H317

### Classification procedure:

Calculation method

### Further information

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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