



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 7.2

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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 : Collagen Assay Kit

Product Number : MAK322

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

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### 1.4 Emergency telephone

Emergency Phone # : 000 800 1007 141 (CHEMTREC)

This is a summary SDS for a kit. For the full SDS for each of the components listed in section 16 please visit our website.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Respiratory sensitization, (Category 1) H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Reproductive toxicity, (Category 1B) H360FD: May damage fertility. May damage the unborn child.

## 2.2 Label elements

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

Pictogram

|                                |                                                                               |
|--------------------------------|-------------------------------------------------------------------------------|
| Signal Word                    | Danger                                                                        |
| Hazard Statements              |                                                                               |
| H334                           | May cause allergy or asthma symptoms or breathing difficulties if inhaled.    |
| H360FD                         | May damage fertility. May damage the unborn child.                            |
| Precautionary Statements       |                                                                               |
| P202                           | Do not handle until all safety precautions have been read and understood.     |
| P261                           | Avoid breathing mist or vapors.                                               |
| P280                           | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P284                           | Wear respiratory protection.                                                  |
| P308 + P313                    | IF exposed or concerned: Get medical advice/ attention.                       |
| P405                           | Store locked up.                                                              |
| 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.

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## SECTION 3: Composition/information on ingredients

Refer to component SDS

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## SECTION 4: First aid measures

Refer to component SDS

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## **SECTION 5: Firefighting measures**

Refer to component SDS

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

Refer to component SDS

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

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

#### **Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

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

#### **Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

**Storage stability** Recommended storage temperature  
-20 °C

#### **Storage class**

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

### **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**

Refer to component SDS

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## **SECTION 9: Physical and chemical properties**

Refer to component SDS

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## **SECTION 10: Stability and reactivity**

Refer to component SDS

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## **SECTION 11: Toxicological information**

Refer to component SDS

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## SECTION 12: Ecological information

Refer to component SDS

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## SECTION 13: Disposal considerations

Refer to component SDS

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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.

Refer to component SDS

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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**SECTION 16: Other information****Kit Components:**

|                   |       |         |                     |
|-------------------|-------|---------|---------------------|
| Dye Reagent       | Sigma | MAK322A | Repr. 1B; H360FD    |
| Buffer            | Sigma | MAK322B | Repr. 1B; H360FD    |
| Digest Enzyme     | Sigma | MAK322C | Resp. Sens. 1; H334 |
| Collagen Standard | Sigma | MAK322D |                     |
| Developer         | Sigma | MAK322E |                     |

**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**

|              |        |
|--------------|--------|
| Resp. Sens.1 | H334   |
| Repr.1B      | H360FD |

**Classification procedure:**

|                    |
|--------------------|
| Calculation method |
| Calculation method |

**Further information**

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## Kit Components:

| <b>Dye Reagent</b> |           |             |                                                    |                                                                                                                                                                                                                                                                                                                                              |                          |
|--------------------|-----------|-------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements                                  | Precautionary Statements                                                                                                                                                                                                                                                                                                                     | Supplemental information |
| Sigma - MAK322A    |           | Danger      | May damage fertility. May damage the unborn child. | Obtain special instructions before use. IF exposed or concerned: Get medical advice/ attention. Store locked up. Dispose of contents/ container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. Wear protective gloves/ protective clothing/ eye protection/ face protection. |                          |

| <b>Buffer</b>      |           |             |                                                    |                                                                                                                                                                      |                          |
|--------------------|-----------|-------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements                                  | Precautionary Statements                                                                                                                                             | Supplemental information |
| Sigma - MAK322B    |           | Danger      | May damage fertility. May damage the unborn child. | Obtain special instructions before use. IF exposed or concerned: Get medical advice/ attention. Store locked up. Dispose of contents/ container to an approved waste |                          |

|  |  |  |  |                                                                                                                                                                            |  |
|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  |  |  | disposal plant.<br>Do not handle until all safety precautions have been read and understood. Wear protective gloves/ protective clothing/ eye protection/ face protection. |  |
|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

| <b>Digest Enzyme</b> |           |             |                                                                            |                                                                                                                                                        |                          |
|----------------------|-----------|-------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Product identifier   | Pictogram | Signal Word | Hazard Statements                                                          | Precautionary Statements                                                                                                                               | Supplemental information |
| Sigma - MAK322C      |           | Danger      | May cause allergy or asthma symptoms or breathing difficulties if inhaled. | Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Dispose of contents/ container to an approved waste disposal plant. Wear respiratory protection. |                          |

| <b>Collagen Standard</b> |           |             |                   |                          |                                                                                 |
|--------------------------|-----------|-------------|-------------------|--------------------------|---------------------------------------------------------------------------------|
| Product identifier       | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information                                                        |
| Sigma - MAK322D          |           |             |                   |                          | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |

| <b>Developer</b>   |           |             |                   |                          |                                                                                 |
|--------------------|-----------|-------------|-------------------|--------------------------|---------------------------------------------------------------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information                                                        |
| Sigma - MAK322E    |           |             |                   |                          | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |