



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 8.0

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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 : NADP/NADPH ASSAY KIT

Product Number : MAK479

Brand : Sigma

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

Identified uses : Laboratory chemicals, Manufacture of substances

### 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

#### Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

Corrosive to Metals (Category 1), H290

Skin irritation (Category 2), H315

Eye irritation (Category 2), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H336

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

### 2.2 Label elements

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

## Pictogram

|                                |                                                                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Signal Word                    | Danger                                                                                                                           |
| Hazard statement(s)            |                                                                                                                                  |
| H225                           | Highly flammable liquid and vapor.                                                                                               |
| H290                           | May be corrosive to metals.                                                                                                      |
| H315                           | Causes skin irritation.                                                                                                          |
| H319                           | Causes serious eye irritation.                                                                                                   |
| H336                           | May cause drowsiness or dizziness.                                                                                               |
| Precautionary statement(s)     |                                                                                                                                  |
| P210                           | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.                                   |
| P233                           | Keep container tightly closed.                                                                                                   |
| P234                           | Keep only in original packaging.                                                                                                 |
| P240                           | Ground and bond container and receiving equipment.                                                                               |
| P303 + P361 + P353             | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.                                     |
| P305 + P351 + P338             | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| Supplemental Hazard Statements | none                                                                                                                             |

## Reduced Labeling (<= 125 ml)

### Pictogram

|                                |        |
|--------------------------------|--------|
| Signal Word                    | Danger |
| Hazard statement(s)            | none   |
| Precautionary statement(s)     | none   |
| Supplemental Hazard Statements | none   |

## 2.3 Other hazards - none

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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.

#### Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### 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

No metal containers.

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

#### Storage stability

Recommended storage temperature  
-20 °C

#### Storage class

Storage class (TRGS 510): 3: Flammable liquids

### 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: 3316

IMDG: 3316

IATA: 3316

**14.2 UN proper shipping name**

ADR/RID: CHEMICAL KIT

IMDG: CHEMICAL KIT

IATA: Chemical kit

**14.3 Transport hazard class(es)**

ADR/RID: 9

IMDG: 9

IATA: 9

**14.4 Packaging group**

ADR/RID: II

IMDG: II

IATA: II

**14.5 Environmental hazards**

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

**14.6 Special precautions for user**

Further information : No data available

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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:**

ASSAY BUFFER

Sigma

MAK479A

ENZYME A

Sigma

MAK479B

ENZYME B

Sigma

MAK479C

MTT SOLUTION

Sigma

MAK479D

Flam. Liq. 2; Met. Corr. 1; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H225, H290, H315, H319, H336

G6P

Sigma

MAK479E

NADP EXTRACTION

Sigma

MAK479F

Met. Corr. 1; H290

BUFFER

NADPH EXTRACTION

Sigma

MAK479G

**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**

|              |      |
|--------------|------|
| Flam. Liq.2  | H225 |
| Met. Corr.1  | H290 |
| Skin Irrit.2 | H315 |
| Eye Irrit.2  | H319 |
| STOT SE3     | H336 |

**Classification procedure:**

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

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. 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

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## Kit Components:

| <b>ASSAY BUFFER</b> |           |             |                   |                          |                                                                                 |
|---------------------|-----------|-------------|-------------------|--------------------------|---------------------------------------------------------------------------------|
| Product identifier  | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information                                                        |
| Sigma - MAK479A     |           |             |                   |                          | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |

| <b>ENZYME A</b>    |           |             |                   |                          |                                                                                 |
|--------------------|-----------|-------------|-------------------|--------------------------|---------------------------------------------------------------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information                                                        |
| Sigma - MAK479B    |           |             |                   |                          | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |

| <b>ENZYME B</b>    |           |             |                   |                          |                                                                                 |
|--------------------|-----------|-------------|-------------------|--------------------------|---------------------------------------------------------------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information                                                        |
| Sigma - MAK479C    |           |             |                   |                          | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |

| <b>MTT SOLUTION</b> |           |             |                                                                                                                                                                      |                                                                                                                                                                            |                          |
|---------------------|-----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Product identifier  | Pictogram | Signal Word | Hazard Statements                                                                                                                                                    | Precautionary Statements                                                                                                                                                   | Supplemental information |
| Sigma - MAK479D     |           | Danger      | Highly flammable liquid and vapor.<br>May be corrosive to metals.<br>Causes skin irritation.<br>Causes serious eye irritation.<br>May cause drowsiness or dizziness. | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse |                          |

|  |  |  |  |                                                                                                                                                                                                                                                                      |  |
|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  |  |  | skin with water. Keep container tightly closed. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep only in original packaging. Ground and bond container and receiving equipment. |  |
|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

| <b>G6P</b>         |           |             |                   |                          |                                                                                 |
|--------------------|-----------|-------------|-------------------|--------------------------|---------------------------------------------------------------------------------|
| Product identifier | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information                                                        |
| Sigma - MAK479E    |           |             |                   |                          | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |

| <b>NADP EXTRACTION BUFFER</b> |           |             |                             |                                                                              |                          |
|-------------------------------|-----------|-------------|-----------------------------|------------------------------------------------------------------------------|--------------------------|
| Product identifier            | Pictogram | Signal Word | Hazard Statements           | Precautionary Statements                                                     | Supplemental information |
| Sigma - MAK479F               |           | Warning     | May be corrosive to metals. | Keep only in original packaging. Absorb spillage to prevent material damage. |                          |

| <b>NADPH EXTRACTION BUFFER</b> |           |             |                   |                          |                                                                                 |
|--------------------------------|-----------|-------------|-------------------|--------------------------|---------------------------------------------------------------------------------|
| Product identifier             | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information                                                        |
| Sigma - MAK479G                |           |             |                   |                          | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |

| <b>NADP STANDARD (1 MM)</b> |           |             |                   |                          |                                                                                 |
|-----------------------------|-----------|-------------|-------------------|--------------------------|---------------------------------------------------------------------------------|
| Product identifier          | Pictogram | Signal Word | Hazard Statements | Precautionary Statements | Supplemental information                                                        |
| Sigma - MAK479H             |           |             |                   |                          | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008. |

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