

# SAFETY DATA SHEET

Version 8.9  
Revision Date 11.07.2023  
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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Phenolphthalein indicator ACS, Reag. Ph Eur

Product Number : 1.07233  
Catalogue No. : 107233  
Brand : Millipore  
CAS-No. : 77-09-8

### 1.2 Other means of identification

No data available

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

Identified uses : Reagent for analysis

### 1.4 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Pte Ltd  
(Co. Registration No. 199403788W)  
2 Science Park Drive  
#05-01/12 Ascent Building  
SINGAPORE 118222  
SINGAPORE

Telephone : +65 6890 6633  
Fax : +65 6890 6639  
E-mail address : TechnicalService@merckgroup.com

### 1.5 Emergency telephone

Emergency Phone # : 1-800-262-8200

## SECTION 2: Hazards identification

### 2.1 GHS Classification

Skin corrosion/irritation (Category 2), H315  
Germ cell mutagenicity (Category 2), H341  
Carcinogenicity (Category 1B), H350  
Reproductive toxicity (Category 2), H361

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

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

|                                   |   |
|-----------------------------------|---|
| <b>Hazard statement(s)</b>        |   |
| H315                              | Causes skin irritation.   |
| H341                              | Suspected of causing genetic defects.   |
| H350                              | May cause cancer.   |
| H361                              | Suspected of damaging fertility or the unborn child.                          |
| <b>Precautionary statement(s)</b> |   |
| <b>Prevention</b>                 |   |
| P201                              | Obtain special instructions before use.                                       |
| P202                              | Do not handle until all safety precautions have been read and understood.     |
| P264                              | Wash skin thoroughly after handling.  |
| P280                              | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| <b>Response</b>                   |   |
| P302 + P352                       | IF ON SKIN: Wash with plenty of water.  |
| P308 + P313                       | IF exposed or concerned: Get medical advice/ attention.                       |
| P332 + P313                       | If skin irritation occurs: Get medical advice/ attention.                     |
| P362 + P364                       | Take off contaminated clothing and wash it before reuse.                      |
| <b>Storage</b>                    |   |
| P405                              | Store locked up.  |
| <b>Disposal</b>                   |   |
| P501                              | Dispose of contents/ container to an approved waste disposal plant.           |

### 2.3 Other hazards - none

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## SECTION 3: Composition/information on ingredients

Substance / Mixture : Substance

### 3.1 Substances

Formula : C<sub>20</sub>H<sub>14</sub>O<sub>4</sub>  
Molecular weight : 318.33 g/mol  
CAS-No. : 77-09-8  
EC-No. : 201-004-7  
Index-No. : 604-076-00-1

#### Hazardous ingredients

| Component              | Classification  | Concentration |
|------------------------|---|---------------|
| <b>phenolphthalein</b> | Skin Corr./Irrit. 2; Muta. 2; Carc. 1B; Repr. 2; H315, H341, H350, H361 | <= 100 %      |

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. Call in physician.

#### 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. Call in ophthalmologist. 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

Carbon oxides

Combustible.

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 generation and inhalation of dusts in all circumstances. 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 carefully. 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**

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

Work under hood. Do not inhale substance/mixture.

#### **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**

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Recommended storage temperature see product label.

#### **Storage class**

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

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

Apart from the uses mentioned in section 1.3 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**

Contains no substances with occupational exposure limit values.

### **8.2 Exposure controls**

#### **Appropriate engineering controls**

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

## 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 EN374 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

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 EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

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.

### 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               | solid  |
| b) Color                        | white  |
| c) Odor                         | odorless   |
| d) Melting point/freezing point | Melting point: ca.263.7 °C at ca.1,013 hPa - OECD Test Guideline 102 |
| e) Initial boiling point        | > 450 °C at 1,013 hPa - OECD Test Guideline 103                      |

|    |  |   |
|----|--|---|
|    | and boiling range                            |   |
| f) | Flammability (solid, gas)                    | No data available   |
| g) | Upper/lower flammability or explosive limits | No data available   |
| h) | Flash point                                  | Not applicable  |
| i) | Autoignition temperature                     | 397 °C<br>- Relative self-ignition temperature for solids                             |
| 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                             | 0.00336 g/l at 20 °C - OECD Test Guideline 105- slightly soluble                      |
| n) | Partition coefficient: n-octanol/water       | log Pow: 0.9 at 25 °C - OECD Test Guideline 117 -<br>Bioaccumulation is not expected. |
| o) | Vapor pressure                               | < 0.1 hPa at 50 °C - OECD Test Guideline 104  |
| p) | Density                                      | No data available   |
|    | Relative density                             | ca.1.29 at 20.6 °C - OECD Test Guideline 109  |
| q) | Relative vapor density                       |   |
| r) | Particle characteristics                     | No data available   |
| s) | Explosive properties                         | No data available   |
| t) | Oxidizing properties                         | none  |

## 9.2 Other safety information

|                 |  |
|-----------------|--|
| Bulk density    | 350 - 450 kg/m <sup>3</sup>                            |
| Surface tension | 71.8 mN/m at 20 °C<br>- OECD Test Guideline 115        |
| Particle size   | 56.6 µm - OECD Test Guideline 110 - Mean particle size |

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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:  
Strong oxidizing agents

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

Strong oxidizing agents

### 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

#### Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

#### Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)

Result: irritating - 42 min

(OECD Test Guideline 439)

#### Serious eye damage/eye irritation

Eyes - In vitro study

Result: non-corrosive - 4 h

(OECD Test Guideline 437)

#### Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse

Result: Not a skin sensitizer.

(OECD Test Guideline 429)

#### Germ cell mutagenicity

Suspected of causing genetic defects.

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

#### Carcinogenicity

Presumed to have carcinogenic potential for humans

#### Reproductive toxicity

Suspected of damaging fertility.

#### 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**

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 800 mg/kg

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After uptake of large quantities:

Nausea  
Vomiting  
Gastrointestinal disturbance  
Fever  
cardiovascular disorders  
CNS disorders

The substance has a laxative effect.

Other dangerous properties can not be excluded.

This substance should be handled with particular care.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to daphnia and other aquatic invertebrates      static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae      static test ErC50 - Desmodesmus subspicatus (green algae) - > 3.33 mg/l - 72 h (OECD Test Guideline 201)

static test NOEC - Desmodesmus subspicatus (green algae) - 0.57 mg/l - 72 h (OECD Test Guideline 201)

**12.2 Persistence and degradability**

Biodegradability      aerobic - Exposure time 28 d  
Result: 76 % - Readily biodegradable.  
(OECD Test Guideline 301F)  
Remarks: The 10 day time window criterion is not fulfilled.

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available



## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Endocrine disrupting properties

No data available

## 12.7 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA-DGR: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA-DGR: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA-DGR: -

### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA-DGR: -

### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

### 14.6 Special precautions for user

### 14.7 Incompatible materials

Strong oxidizing agents

#### 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

No data available

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**SECTION 16: Other information****-Full text of H-Statements referred to under sections 2 and 3.**

|      |  |
|------|--|
| H315 | Causes skin irritation.                              |
| H341 | Suspected of causing genetic defects.                |
| H350 | May cause cancer.                                    |
| H361 | Suspected of damaging fertility or the unborn child. |

**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 [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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