

SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 08/03/2017

Version 1.4

SECTION 1. Identification**Product identifier**

Product number	107233
Product name	Phenolphthalein indicator ACS, Reag. Ph Eur
CAS-No.	77-09-8

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

Identified uses	Reagent for analysis
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Details of the supplier of the safety data sheet

Company	EMD Millipore Corporation 290 Concord Road, Billerica, MA 01821, United States of America General Inquiries: +1-978-715-4321 Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5) MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.
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Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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SECTION 2. Hazards identification**GHS Classification**

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.

GHS-Labeling*Hazard pictograms*

Signal Word
Danger

Hazard Statements

H350 May cause cancer.
H341 Suspected of causing genetic defects.
H361 Suspected of damaging fertility or the unborn child.

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Precautionary Statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P281 Use personal protective equipment as required.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Formula $C_{20}H_{14}O_4$ (Hill)
Molar mass 318.32 g/mol

Hazardous ingredients

Chemical name (Concentration)

CAS-No.

phenolphthalein ($\geq 90\%$ - $\leq 100\%$)

77-09-8

Exact percentages are being withheld as a trade secret.

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air. Call in physician.

Skin contact

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

Eye contact

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

Ingestion

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

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Fever, Gastrointestinal disturbance, Nausea, Vomiting, cardiovascular disorders, CNS disorders
The substance has a laxative effect.

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

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Suitable extinguishing media

Water, Foam, Carbon dioxide (CO₂), Dry powder

Unsuitable extinguishing media

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

Special hazards arising from the substance or mixture

Combustible.

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

Vapors are heavier than air and may spread along floors.

Advice for firefighters

Special protective equipment for fire-fighters

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

Further information

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

SECTION 6. Accidental release measures

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.

Advice for emergency responders:

Protective equipment see section 8.

Environmental precautions

Do not let product enter drains.

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.

SECTION 7. Handling and storage

Precautions for safe handling

Work under hood. Do not inhale substance/mixture.

Observe label precautions.

Conditions for safe storage, including any incompatibilities

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

Storage temperature: no restrictions.

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SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Contains no substances with occupational exposure limit values.

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

Eye/face protection

Safety glasses

Hand protection

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0.11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. 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).

Other protective equipment:

protective clothing

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter P 3 (acc. to DIN 3181) for solid and liquid particles of toxic and very toxic substances

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

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SECTION 9. Physical and chemical properties

Physical state	solid
Color	white
Odor	odorless
Odor Threshold	No information available.
pH	No information available.
Melting point	506.7 °F (263.7 °C) Method: OECD Test Guideline 102
Boiling point/boiling range	> 842 °F (> 450 °C) Method: OECD Test Guideline 103
Flash point	Not applicable
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable. Flammability (solids)
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	< 0.00001 Pa at 122 °F (50 °C) Method: OECD Test Guideline 104
Relative vapor density	No information available.
Density	1.296 g/cm ³ at 68 °F (20 °C) Method: OECD Test Guideline 109
Relative density	No information available.
Water solubility	3.36 mg/l at 68 °F (20 °C) Method: OECD Test Guideline 105
Partition coefficient: n-octanol/water	log Pow: 0.9 OECD Test Guideline 107 Bioaccumulation is not expected.

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Autoignition temperature	747 °F(397 °C) Method: Tested according to Annex V of Directive 67/548/EEC.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	none
Bulk density	350 - 450 kg/m ³
Particle size	Mean particle size 56.6 µm Method: OECD Test Guideline 110

SECTION 10. Stability and reactivity

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.

Chemical stability

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

Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Conditions to avoid

no information available

Incompatible materials

no information available

Hazardous decomposition products

no information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Inhalation, Eye contact, Skin contact, Ingestion

Skin irritation

In vitro study

Result: non-corrosive

OECD Test Guideline 431

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Eye irritation

Result: non-corrosive

OECD Test Guideline 437

Sensitization

Sensitization test: Mouse

Result: negative

Method: OECD Test Guideline 429

Genotoxicity in vivo

Mutagenicity (mammal cell test): micronucleus.

Mouse

Result: positive

(Lit.)

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

Mutagenicity (mammal cell test): chromosome aberration.

Result: positive

(Lit.)

sister chromatid exchange assay

Chinese hamster ovary cells

Result: negative

(National Toxicology Program)

CMR effects

Mutagenicity: Suspected of causing genetic defects.

Carcinogenicity: May cause cancer.

Teratogenicity / Reproductive toxicity: Suspected of damaging fertility or the unborn child.

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC

Group 2B: Possibly carcinogenic to humans

phenolphthalein

77-09-8

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

Anticipated carcinogen.

phenolphthalein

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ACGIH

No ingredient of this product present at levels greater than or

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equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

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.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): > 4.34 mg/l; 48 h

OECD Test Guideline 202 (above the solubility limit in the test medium)

Toxicity to algae

Growth inhibition EbC50 Desmodesmus subspicatus (green algae): 2.5 mg/l; 72 h

OECD Test Guideline 201

Growth inhibition ErC50 Desmodesmus subspicatus (green algae): > 3.33 mg/l; 72 h

OECD Test Guideline 201

Persistence and degradability

Biodegradability

76 %; 28 d; aerobic

OECD Test Guideline 301F

The 10 day time window criterion is not fulfilled.

Readily biodegradable.

Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow: 0.9

OECD Test Guideline 107

Bioaccumulation is not expected.

Mobility in soil

No information available.

Other adverse effects

Surface tension

71.8 mN/m

at 68 °F(20 °C)

Method: OECD Test Guideline 115

Additional ecological information

Discharge into the environment must be avoided.

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SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. Regulatory information

United States of America

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

phenolphthalein

77-09-8

100 %

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

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Remarks

No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know

Ingredients

phenolphthalein

California Prop 65 Components

WARNING: this product contains a chemical known in the State of California to cause cancer.

Ingredients

phenolphthalein

Notification status

TSCA:

All components of the product are listed in the TSCA-inventory.

DSL:

All components of this product are on the Canadian DSL

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Labeling

Hazard pictograms



Signal Word

Danger

Hazard Statements

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H361 Suspected of damaging fertility or the unborn child.

Precautionary Statements

Prevention

P201 Obtain special instructions before use.

P260 Do not breathe dust.

Response

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Restricted to professional users.

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Full text of H-Statements referred to under sections 2 and 3.

H341

Suspected of causing genetic defects.

H350

May cause cancer.

H361

Suspected of damaging fertility or the unborn child.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 08/03/2017

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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