

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 31.07.2018

Version 10.3

SECTION 1. Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Catalogue No. 107233

Product name Phenolphthalein indicator ACS, Reag. Ph Eur

REACH Registration Number 01-2119498295-24-XXXX

CAS-No. 77-09-8

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

Identified uses Reagent for analysis

For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).

1.3 Details of the supplier of the safety data sheet

Company Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0

Responsible Department LS-QHC * e-mail: prodsafe@merckgroup.com

1.4 Emergency telephone number Please contact the regional company representation in your country.

SECTION 2. Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Germ cell mutagenicity, Category 2, H341

Carcinogenicity, Category 1B, H350

Reproductive toxicity, Category 2, H361f

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.

107233

Product name

Phenolphthalein indicator ACS, Reag. Ph Eur

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

Danger

Hazard statements

H350 May cause cancer.

H341 Suspected of causing genetic defects.

H361f Suspected of damaging fertility.

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.

Reduced labelling (≤125 ml)

Hazard pictograms



Signal word

Danger

Hazard statements

H350 May cause cancer.

H341 Suspected of causing genetic defects.

H361f Suspected of damaging fertility.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

Precautionary statements

P201 Obtain special instructions before use.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Index-No. 604-076-00-1

2.3 Other hazards

None known.

SECTION 3. Composition/information on ingredients

3.1 Substance

Formula $C_{20}H_{14}O_4$ (Hill)
Index-No. 604-076-00-1
EC-No. 201-004-7
Molar mass 318,32 g/mol

Hazardous components (REGULATION (EC) No 1272/2008)

Chemical name (Concentration)

CAS-No.	Registration number	Classification
phenolphthalein (<= 100 %)		
77-09-8	01-2119498295-24-XXXX	Germ cell mutagenicity, Category 2, H341 Carcinogenicity, Category 1B, H350 Reproductive toxicity, Category 2, H361f

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

3.2 Mixture

Not applicable

SECTION 4. First aid measures

4.1 Description of first aid measures

After inhalation: fresh air. Call in physician.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

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

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

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

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

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, Foam, Carbon dioxide (CO₂), 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

Combustible.

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

Vapours are heavier than air and may spread along floors.

5.3 Advice for firefighters

Special protective equipment 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.

Further information

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

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.

Advice for emergency responders:

Protective equipment 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

Indications about waste treatment see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Observe label precautions.

Hygiene measures

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

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 authorised persons.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

Recommended storage temperature see product label.

7.3 Specific end use(s)

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

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Engineering measures

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

See section 7.1.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

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 (>,<) 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).

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 carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

Do not let product enter drains.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	solid
Colour	white
Odour	odourless
Odour Threshold	No information available.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

pH	No information available.
Melting point	263,7 °C Method: OECD Test Guideline 102
Boiling point/boiling range	> 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.
Vapour pressure	< 0,00001 Pa at 50 °C Method: OECD Test Guideline 104
Relative vapour density	No information available.
Density	1,296 g/cm ³ at 20 °C Method: OECD Test Guideline 109
Relative density	No information available.
Water solubility	3,36 mg/l at 20 °C Method: OECD Test Guideline 105

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

Partition coefficient: n-octanol/water log Pow: 0,9
OECD Test Guideline 107
Bioaccumulation is not expected.

Auto-ignition temperature 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

9.2 Other data

Bulk density 350 - 450 kg/m³

Particle size Mean particle size
56,6 µm
Method: OECD Test Guideline 110

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233

Product name Phenolphthalein indicator ACS, Reag. Ph Eur

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

no information available

10.6 Hazardous decomposition products

no information available

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

This information is not available.

Acute inhalation toxicity

This information is not available.

Acute dermal toxicity

This information is not available.

Skin irritation

In vitro study

Result: non-corrosive

OECD Test Guideline 431

Eye irritation

Result: non-corrosive

OECD Test Guideline 437

Sensitisation

Sensitisation test: Mouse

Result: negative

Method: OECD Test Guideline 429

Germ cell mutagenicity

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233

Product name Phenolphthalein indicator ACS, Reag. Ph Eur

Genotoxicity in vivo

Mutagenicity (mammal cell test): micronucleus.

Mouse

male

Bone marrow

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)

Carcinogenicity

This information is not available.

Reproductive toxicity

This information is not available.

Teratogenicity

This information is not available.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

CMR effects

Carcinogenicity:

May cause cancer.

Mutagenicity:

Suspected of causing genetic defects.

Reproductive toxicity:

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

This information is not available.

Specific target organ toxicity - repeated exposure

This information is not available.

Aspiration hazard

This information is not available.

11.2 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

12.1 Toxicity

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233

Product name Phenolphthalein indicator ACS, Reag. Ph Eur

12.2 Persistence and degradability

Biodegradability

76 %; 28 d; aerobic

OECD Test Guideline 301F

The 10 day time window criterion is not fulfilled.

Readily biodegradable

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

log Pow: 0,9

OECD Test Guideline 107

Bioaccumulation is not expected.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

Surface tension

71,8 mN/m

at 20 °C

Method: OECD Test Guideline 115

Additional ecological information

Discharge into the environment must be avoided.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

SECTION 13. Disposal considerations

Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. Transport information

Land transport (ADR/RID)

14.1 - 14.6 Not classified as dangerous in the meaning of transport regulations.

Inland waterway transport (ADN)

Not relevant

Air transport (IATA)

14.1 - 14.6 Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

14.1 - 14.6 Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Major Accident Hazard SEVESO III
Legislation Not applicable

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work. Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 107233
Product name Phenolphthalein indicator ACS, Reag. Ph Eur

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 59 above the respective regulatory concentration limit of > 0.1 % (w/w).

Contains: phenolphthalein

National legislation

Storage class 6.1C

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16. Other information

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

H341 Suspected of causing genetic defects.
H350 May cause cancer.
H361f Suspected of damaging fertility.

Training advice

Provide adequate information, instruction and training for operators.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.

107233

Product name

Phenolphthalein indicator ACS, Reag. Ph Eur

Labelling

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.

Further information

Restricted to professional users.

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.

Regional representation

This information is given on the authorised Safety Data Sheet for your country.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No.	107233
Product name	Phenolphthalein indicator ACS,Reag. Ph Eur

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.