

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 18.12.2015

Version 2.4

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Catalogue No.	800918
Product name	Dimethyl phthalate for synthesis
REACH Registration Number	A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
CAS-No.	131-11-3

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

Identified uses	Chemical for synthesis For additional information on uses please refer to the Merck Chemicals portal ( <a href="http://www.merckgroup.com">www.merckgroup.com</a> ).
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### 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: <a href="mailto:prodsafe@merckgroup.com">prodsafe@merckgroup.com</a>

1.4 Emergency telephone number	Please contact the regional company representation in your country.
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## SECTION 2. Hazards identification

### 2.1 Classification of the substance or mixture

This substance is not classified as dangerous according to European Union legislation.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.3 Other hazards

None known.

## SECTION 3. Composition/information on ingredients

### 3.1 Substance

Formula	$\text{C}_6\text{H}_4\text{-1,2-(COOCH}_3)_2$	$\text{C}_{10}\text{H}_{10}\text{O}_4$ (Hill)
EC-No.	205-011-6	
Molar mass	194,18 g/mol	
Remarks	No disclosure requirement according to Regulation (EC) No. 1907/2006	

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**3.2 Mixture**

Not applicable

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**SECTION 4. First aid measures**

**4.1 Description of first aid measures**

After inhalation: fresh air.

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

After eye contact: rinse out with plenty of water.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

**4.2 Most important symptoms and effects, both acute and delayed**

gastric pain, Diarrhoea, Vomiting

**4.3 Indication of any immediate medical attention and special treatment needed**

No information 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**

Combustible.

Vapours are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

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

**5.3 Advice for firefighters**

*Special protective equipment for firefighters*

In the event of fire, wear self-contained breathing apparatus.

*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: Do not breathe vapours, aerosols. 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**

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Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

Indications about waste treatment see section 13.

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### SECTION 7. Handling and storage

#### 7.1 Precautions for safe handling

*Advice on safe handling*

Observe label precautions.

*Hygiene measures*

Change contaminated clothing. Wash hands after working with substance.

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

*Storage conditions*

Tightly closed.

Protected from light.

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.

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### 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:	polychloroprene
Glove thickness:	0,65 mm
Break through time:	> 480 min

splash contact:

Glove material:	natural latex
Glove thickness:	0,6 mm
Break through time:	> 60 min

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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 720 Camapren® (full contact), KCL 706 Lapren® (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](http://www.kcl.de)).

*Respiratory protection*

required when vapours/aerosols are generated.

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

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.

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**SECTION 9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Form	liquid
Colour	colourless
Odour	odourless
Odour Threshold	Not applicable
pH	7 at 20 °C
Melting point	6 °C
Solidification point	0,36 °C
Boiling point/boiling range	283 °C at 1.013 hPa
Flash point	150 °C Method: DIN 51758
Evaporation rate	No information available.
Flammability (solid, gas)	Not applicable
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	1,33 hPa at 100 °C

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	0,008 hPa at 20 °C
Relative vapour density	6,69
Density	1,19 g/cm <sup>3</sup> at 20 °C
Relative density	No information available.
Water solubility	4,0 g/l at 25 °C
Partition coefficient: n-octanol/water	log Pow: 1,54 (25 °C) OECD Test Guideline 107 Bioaccumulation is not expected.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	17,2 mPa.s at 25 °C
Explosive properties	Not classified as explosive.
Oxidizing properties	none

**9.2 Other data**

Ignition temperature	460 °C DIN 51794
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**SECTION 10. Stability and reactivity**

**10.1 Reactivity**

Forms explosive mixtures with air on intense heating.  
A range from approx. 15 Kelvin below the flash point is to be rated as critical.

**10.2 Chemical stability**

Sensitivity to light

**10.3 Possibility of hazardous reactions**

Exothermic reaction with:  
strong oxidising agents, Strong acids, nitrates, Bases

**10.4 Conditions to avoid**

Strong heating.

**10.5 Incompatible materials**

no information available

**10.6 Hazardous decomposition products**

no information available

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**SECTION 11. Toxicological information**

**11.1 Information on toxicological effects**

*Acute oral toxicity*

LD50 Rat: 5.120 mg/kg  
OECD Test Guideline 401

*Acute inhalation toxicity*

LC50 Rat: > 10,4 mg/l; 6 h ; vapour  
(External MSDS)

*Acute dermal toxicity*

LD50 Rabbit: > 12.000 mg/kg  
(IUCLID)

*Skin irritation*

Rabbit  
Result: No irritation  
Draize Test

(IUCLID)

*Eye irritation*

Rabbit  
Result: No eye irritation  
OECD Test Guideline 405

*Sensitisation*

Sensitisation test: Guinea pig  
Result: negative

(IUCLID)

Patch test: human  
Result: negative

(IUCLID)

*Germ cell mutagenicity*

*Genotoxicity in vitro*

Ames test  
Result: negative

(IUCLID)

*Carcinogenicity*

This information is not available.

*Reproductive toxicity*

This information is not available.

*Teratogenicity*

This information is not available.

*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.

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### 11.2 Further information

After uptake of large quantities:

Vomiting, Diarrhoea, gastric pain

Further data:

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 12. Ecological information

### 12.1 Toxicity

*Toxicity to fish*

LC50 Pimephales promelas (fathead minnow): 39 mg/l; 96 h  
(IUCLID)

*Toxicity to daphnia and other aquatic invertebrates*

EC50 Daphnia magna (Water flea): > 52 mg/l; 48 h  
(IUCLID)

*Toxicity to algae*

IC50 Desmodesmus subspicatus (green algae): 204 mg/l; 72 h  
(IUCLID)

*Toxicity to bacteria*

EC50 Pseudomonas putida: 4.100 mg/l; 30 min  
(IUCLID)

EC20 activated sludge: ca. 400 mg/l; 30 min

OECD Test Guideline 209

*Toxicity to fish (Chronic toxicity)*

NOEC Oncorhynchus mykiss (rainbow trout): 11 mg/l; 102 d

Analytical monitoring: yes  
(External MSDS)

*Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)*

NOEC Daphnia magna (Water flea): 9,6 mg/l; 21 d

Analytical monitoring: yes

(External MSDS)

### 12.2 Persistence and degradability

*Biodegradability*

91 %; 11 d

OECD Test Guideline 301E

Readily biodegradable

### 12.3 Bioaccumulative potential

*Partition coefficient: n-octanol/water*

log Pow: 1,54 (25 °C)

OECD Test Guideline 107

Bioaccumulation is not expected.

*Bioaccumulation*

Bioconcentration factor (BCF): 57

Lepomis macrochirus (Bluegill sunfish); 21 d

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

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

**12.6 Other adverse effects**

Discharge into the environment must be avoided.

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**SECTION 13. Disposal considerations**

*Waste treatment methods*

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

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**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

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**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

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 not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of  $\geq 0.1\%$  (w/w).

*National legislation*

Storage class 10 - 13

**15.2 Chemical Safety Assessment**



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

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**SECTION 16. Other information**

**Training advice**

Provide adequate information, instruction and training for operators.

**Labelling (67/548/EEC or 1999/45/EC)**

The product does not need to be labelled in accordance with EC directives or respective national laws.

**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](http://www.wikipedia.org).

**Regional representation**

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

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*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.*