

EC safety data sheet

Trade name: phthalic anhydride

Version: KEINE / GB

Status: 04.01.2011

Date of printing: 20.10.2015

1.) Identification of the substance/mixture and of the company/undertaking

Trade name

phthalic anhydride

Product identifier

Substance name phthalic-anhydride
REACH registration no. 01-2119457017-41-0008

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

Relevant identified uses of the substance or mixture

Use of phthalic anhydride as an intermediate:
For the production of for example: plasticizers, dyestuffs, pharmaceuticals.
Use of phthalic anhydride as a monomer:
For the production of for example: alkyd resins and general mechanical rubber goods.

Details of the supplier of the safety data sheet

Address

JSC "Lakokraska"
Ignatov Street 71
231300 Lida
Republic of Belarus

Telephone no. +375 154 522 340

Fax no. +375 154 522 755

Emergency telephone

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

Advice on Safety Data Sheet

kozlov@belneftekhim.pl

Only representative according to art. 8 Regulation (EC) 1907/2006

Address

BNH-OIL Polska Sp. z o.o.
al. Wilanowska 313a
PL-02-665 Warszawa
Tel.:+48 2250801 11
Fax: +48 2250801 12
Email: info@belneftekhim.pl

2.) Hazards identification

Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008

Acute Tox. 4; H302
Eye Dam. 1; H318
Resp. Sens. 1; H334
Skin Irrit. 2; H315
Skin Sens. 1; H317
STOT SE 3; H335

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Classification in accordance with Regulation 67/548/EEC or 1999/45/EC

R42/43
Xi; R37/38
Xi; R41
Xn; R22

Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Product identifier

607-009-00-4 (phthalic-anhydride)

Hazard pictograms



GHS05



GHS07



GHS08

Signal word

Danger

Hazard statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

Precautionary statements

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362	Take off contaminated clothing and wash before reuse.
P405	Store locked up.
P501	Dispose of contents/container to hazardous or special waste collection point.

3.) Composition / information on ingredients

Chemical characterization

phthalic-anhydride

Substance / product identification

Index no.	607-009-00-4
CAS no.	85-44-9
EC no.	201-607-5

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4.) First aid measures

General information

Take affected person to fresh air. Remove soiled or soaked clothing immediately.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact

In case of contact with skin wash off immediately with soap and water.

After eye contact

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical assistance.

After ingestion

Summon a doctor immediately. Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person.

5.) Fire-fighting measures

Suitable extinguishing media

extinguishing powder; Water; Foam; Carbon dioxide

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Combustion products of this material have to be classed invariably as respiratory poison. In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO)

Special protective equipment for fire-fighters

Use self-contained breathing apparatus.

6.) Accidental release measures

Personal precautions

Refer to protective measures listed in sections 7 and 8. Avoid dust formation. Keep away sources of ignition.

Environmental precautions

Do not allow to enter drains or waterways.

Methods for cleaning up/taking up

Take up mechanically and send for disposal.

7.) Handling and storage

Handling

Advice on safe handling

Product inherent handling risks must be minimised taking the appropriate measures for protection and preventive actions. The working process should be designed to rule out the release of hazardous substances or skin contact as far it is possible by the state of the art.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of heat and ignition.

Classification of fires

A

Storage

Requirements for storage rooms and vessels

No special measures required.

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Further information on storage conditions

Keep container tightly closed in a cool, well-ventilated place.

8.) Exposure controls / personal protection

Exposure limit values

phthalic-anhydride

CAS no. 85-44-9
EC no. 201-607-5

List of approved workplace exposure limits (WELs) / EH40

Phthalic anhydride
TWA 4 mg/m³
STEL 12 mg/m³
Skin resorption /
sensibilisation Sen

Exposure controls

Personal protective equipment

Respiratory protection

In case of dust formation, use a fine dust face mask. Short term: filter apparatus, Filter A/P2

Hand protection

Protective gloves (EN 374); Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Appropriate Material	nitrile		
Material thickness	>	0,3	mm
Breakthrough time	<	480	min.
Appropriate Material	rubber		
Material thickness	>	0,5	mm
Breakthrough time	>	240	min.

Eye protection

Tightly fitting safety glasses (EN 166).

Skin protection

Normal chemical work clothing.

General protective and hygiene measures

Use barrier skin cream. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Wash hands before breaks and after work. Keep away from foodstuffs and beverages. Do not inhale dust.

9.) Physical and chemical properties

General information

Form solid
Colour colourless

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Important health, safety and environmental information

Changes in physical state

Type	Melting point		
Value	131,6		°C
Type	Boiling point		
Value	284,5		°C

Flash point

Value	152		°C
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Ignition temperature

Value	580		°C
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Explosion limits

Upper explosion limit	10,5		% vol
Lower explosion limit	1,7		% vol

Vapour pressure

Value	0,0006		hPa
Reference temperature	26,6	°C	

Density

Value	1,527		g/cm ³
Reference temperature	20	°C	

Bulk density

Value	500	- 700	kg/m ³
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Viscosity

Type	dynamic		
Value	1,19		mPa*s
Reference temperature	132	°C	

Solubility in water

Value	6	- 16,4	g/l
Reference temperature	20	°C	

Octanol/water partition coefficient (log Pow)

Value	0,7		
Method	Calculation	Hansch/Leo	

10.) Stability and reactivity

Conditions to avoid

reaction with nitric acid; Reaction with water in case of raised temperature. Moisture

Materials to avoid

Metals

Hazardous decomposition products

No hazardous decomposition products known.

Thermal decomposition

Remarks At normal pressure may be distilled without decomposition.

11.) Toxicological information

Acute toxicity

Acute oral toxicity

LD50	1530		mg/kg
Species	rat		

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Acute dermal toxicity

>	3160	mg/kg
Species	rabbit	

Acute inhalational toxicity

>	2,14	mg/l
Duration of exposure	4	h
Species	rat	

Irritant/corrosive effects

Irritant effect on skin

Species	rabbit
Evaluation	slightly irritant
Method	OECD 404

Irritant effect on eyes

Species	rabbit eye
Evaluation	irritant

Sensitisation

Species	guinea pig
Evaluation	sensitizing

Experience in practice

Irritates the mucous membrane.

12.) Ecological information

Ecotoxicity

Fish toxicity

>	500	g/m ³
LC50		
Species	Cyprinus carpio	
Duration of exposure	48	h

Daphnia toxicity

	71	mg/l
EC50		
Species	Daphnia magna	
Duration of exposure	48	h

Algae toxicity

	68	mg/l
EC50		
Species	Selenastrum capricornutum	
Duration of exposure	72	h
Method	OECD 201	

Bacteria toxicity

>	1000	g/m ³
EC50		
Species	activated sludge	
Duration of exposure	3	h
Method	ISO 8192	

Persistence and degradability

Biodegradability

Evaluation	readily biodegradable
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Other adverse effects

General information	Adverse effect due to pH-shifting.
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Other information

Do not discharge product unmonitored into the environment.

13.) Disposal considerations

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

14.) Transport information

Other information (chapter 14.)

No hazardous material as defined by the transport regulations.

15.) Regulatory information

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

EU regulations

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks

Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

16.) Other information

Further information

The information is based on our current knowledge however it does not represent a guarantee of product properties nor does it create any legal obligation.

Authors responsible for the compilation of the material safety data sheet: UMCO Umwelt Consult GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 183b, Tel.: +49(40)41921300, Fax: +49(40)41921378, e-mail: umco@umco.de.

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EC

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.