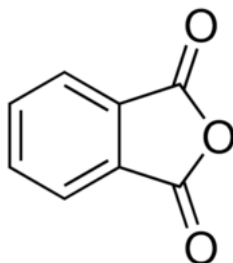


### MATERIAL SAFETY DATA SHEET (MSDS)

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

##### 1.1. Product identifier

Product form : Substance  
:  
EC Index-No. : 607-009-00-4  
EC-No. : 201-607-5  
CAS-No. : 85-44-9  
Product code : 05277  
Chemical structure :



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

###### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only

###### 1.2.2. Uses advised against

No additional information available

##### 1.3. Details of the supplier of the safety data sheet

SPAN LAB  
UNIT NO. 14, SKY INDUSTRIAL ESTATE, WALIV, VASAI (E)  
401208 Mumbai - INDIA  
PH: +91 9820509929  
[info@spanlab.in](mailto:info@spanlab.in) [www.spanlab.in](http://www.spanlab.in)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 1 H318  
Respiratory sensitisation, Category 1 H334  
Acute toxicity (oral), Category 4 H302

# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

Skin corrosion/irritation, Category 2 H315  
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation H335  
Skin sensitisation, Category 1 H317

Full text of H statements : see section 16

### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xn; R22  
R42  
Xi; R41  
Xi; R37/38  
R43

Full text of R-phrases: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS08

GHS07

Signal word (CLP) : Danger

Hazard statements (CLP) : 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 (CLP) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...

## 2.3. Other hazards

No additional information available

# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Name	: PHTHALIC ANHYDRIDE FOR SYNTHESIS
CAS-No.	: 85-44-9
EC-No.	: 201-607-5
EC Index-No.	: 607-009-00-4

Full text of R- and H-statements: see section 16

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
First-aid measures after skin contact	: Wash with plenty of water/.... Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs:
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media	: Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

No additional information available

#### 5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment.
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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel.
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# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

### 6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.  
Emergency procedures : Stop release.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clear up rapidly by scoop or vacuum.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.  
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

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

Storage conditions : Keep container tightly closed. Store in original container. Store in a dry place. Protect from moisture.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection : protective gloves  
Eye protection : Chemical goggles or safety glasses  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : In case of inadequate ventilation wear respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Molecular mass : 148.12 g/mol  
Colour : White crystalline.  
Odour : characteristic choking odor.  
Odour threshold : No data available  
pH : 2 at 6 g/l at 20 °C

# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 131 - 134
Freezing point	: No data available
Boiling point	: 284 °C
Flash point	: 152 °C
Auto-ignition temperature	: 570 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.01 hPa at 20°C
Relative vapour density at 20 °C	: 6.6
Relative density	: No data available
Density	: 1.53 g/cm <sup>3</sup>
Solubility	: Water: 0.62 g/100ml @ 200C
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 0.017 - 0.104 vol %

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity	: Oral: Harmful if swallowed.
Skin corrosion/irritation	: Causes skin irritation. pH: 2 at 6 g/l at 20 °C
Serious eye damage/irritation	: Causes serious eye damage. pH: 2 at 6 g/l at 20 °C
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Harmful if swallowed.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR) : 2214  
UN-No. (IMDG) : 2214  
UN-No. (IATA) : 2214  
UN-No. (ADN) : 2214  
UN-No. (RID) : 2214

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : PHTHALIC ANHYDRIDE  
Proper Shipping Name (IMDG) : PHTHALIC ANHYDRIDE  
Proper Shipping Name (IATA) : Phthalic anhydride  
Proper Shipping Name (ADN) : PHTHALIC ANHYDRIDE  
Proper Shipping Name (RID) : PHTHALIC ANHYDRIDE  
Transport document description (ADR) : UN 2214 PHTHALIC ANHYDRIDE, 8, III, (E)  
Transport document description (IMDG) : UN 2214 PHTHALIC ANHYDRIDE, 8, III  
Transport document description (IATA) : UN 2214 Phthalic anhydride, 8, III  
Transport document description (ADN) : UN 2214 PHTHALIC ANHYDRIDE, 8, III  
Transport document description (RID) : UN 2214 PHTHALIC ANHYDRIDE, 8, III

#### 14.3. Transport hazard class(es)

##### ADR

Transport hazard class(es) (ADR) : 8  
Danger labels (ADR) : 8



##### IMDG

Transport hazard class(es) (IMDG) : 8  
Danger labels (IMDG) : 8



##### IATA

Transport hazard class(es) (IATA) : 8  
Hazard labels (IATA) : 8

# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet



### ADN

Transport hazard class(es) (ADN) : 8

Danger labels (ADN) : 8



### RID

Transport hazard class(es) (RID) : 8

Danger labels (RID) : 8



### 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

### 14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : C4

Special provisions (ADR) : 169

Limited quantities (ADR) : 5kg

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

Special packing provisions (ADR) : B3

Mixed packing provisions (ADR) : MP10

Portable tank and bulk container instructions (ADR) : T1

Portable tank and bulk container special provisions (ADR) : TP33

Tank code (ADR) : SGAV, L4BN

Vehicle for tank carriage : AT

Transport category (ADR) : 3

Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7

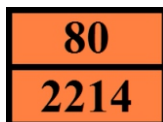


# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

Hazard identification number (Kemler No.) : 80

Orange plates :



Tunnel restriction code (ADR) : E

EAC code : 2X

### - Transport by sea

Special provisions (IMDG) : 169, 939

Limited quantities (IMDG) : 5 kg

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : P002, LP02

IBC packing instructions (IMDG) : IBC08

IBC special provisions (IMDG) : B3

Tank instructions (IMDG) : T1

Tank special provisions (IMDG) : TP33

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-B

Stowage category (IMDG) : A

### - Air transport

PCA Excepted quantities (IATA) : E1

PCA Limited quantities (IATA) : Y845

PCA limited quantity max net quantity (IATA) : 5kg

PCA packing instructions (IATA) : 860

PCA max net quantity (IATA) : 25kg

CAO packing instructions (IATA) : 864

CAO max net quantity (IATA) : 100kg

Special provisions (IATA) : A74

ERG code (IATA) : 8L

### - Inland waterway transport

Classification code (ADN) : C4

Special provisions (ADN) : 169

Limited quantities (ADN) : 5 kg

Excepted quantities (ADN) : E1

Equipment required (ADN) : PP, EP

Number of blue cones/lights (ADN) : 0

### - Rail transport

Classification code (RID) : C4

Special provisions (RID) : 169

Limited quantities (RID) : 5kg

Excepted quantities (RID) : E1

Packing instructions (RID) : P002, IBC08, LP02, R001

Special packing provisions (RID) : B3

Mixed packing provisions (RID) : MP10

Portable tank and bulk container instructions (RID) : T1

Portable tank and bulk container special provisions (RID) : TP33

Tank codes for RID tanks (RID) : SGAV, L4BN

Transport category (RID) : 3

# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

Special provisions for carriage – Bulk (RID) : VC1, VC2, AP7  
Colis express (express parcels) (RID) : CE11  
Hazard identification number (RID) : 80

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

PHTHALIC ANHYDRIDE FOR SYNTHESIS is not on the REACH Candidate List

PHTHALIC ANHYDRIDE FOR SYNTHESIS is not on the REACH Annex XIV List

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV; ID No. 732)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

##### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

# PHTHALIC ANHYDRIDE FOR SYNTHESIS

## Safety Data Sheet

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Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
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.
R22	Harmful if swallowed
R37/38	Irritating to respiratory system and skin
R41	Risk of serious damage to eyes
R42	May cause sensitization by inhalation
R43	May cause sensitisation by skin contact
Xi	Irritant
Xn	Harmful

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*