



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : P 13749  
Product Name : PHTHALIC ANHYDRIDE  
.  
Manufacturer / supplier identification  
Company : NICE Chemicals (P) Ltd. , Cochin , India  
Tel - 0484 2800212 , 2802755  
Contact For Information : Tel . No. – 0484 2802536 Fax : 0484 2802483  
Emergency Telephone No. : 0484 2801583 Tele fax No. : 0484 2802483

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms: 1,2- Benzene dicarbonic acid anhydride

CAS-No. : 85-44-9 EC-No. : 201-607-5  
EC-Index-No. : 607-009-00-4 M : 148.12 g/mol  
Formula Hill :  $C_8H_4O_3$  Chemical formula : -----

## 3. HAZARDS

Harmful by inhalation and if swallowed. Irritating to eyes, respiratory system and skin. Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact.

## 4. FIRST AID MEASURES

After skin contact : Wash off with plenty of water.  
Remove contaminated clothing.  
After eye contact : rinse out with plenty of water for at least 10 minutes  
with the eyelid held wide open. Call in ophtalmologist.  
After inhalation : Fresh air.  
After swallowing : Make victim drink plenty of water. Induce vomiting.  
Call in physician.

## 5. FIRE – FIGHTING MEASURES

Suitable extinguishing media : Powder, foam, water,  $CO_2$ .

Special risks : Combustible. Formation of explosive mixtures possible with air.  
Danger of dust explosion.

Special protective equipment for fire fighting : Do not stay in dangerous zone  
without self-contained breathing apparatus.

Other information: Take measures to prevent electrostatic charging. Beware of back firing. Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or ground water.

## 6. ACCIDENTAL RELEASE MEASURES

Person-related precautionary measures: Avoid substance contact.  
Avoid inhalation of dusts.



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Environmental-protection measures : Do not allow to enter sewerage system.

Procedures for cleaning/absorption: Take up dry. Forward for disposal. Clean up effected area. Avoid generation of dusts.

7. **HANDLING AND STORAGE** : Handling : No further requirements.  
Storage : Tightly closed .  
Storage temperature : No restrictions.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Specific control parameter

EC Name : Phthalic anhydride  
Sensitization : Danger of sensitisation of the airways and the skin.

Personal protective equipment : Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled . The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection : Required when dusts are generated. Filter A(acc. To DIN 3181) for vapours of organic compounds.

Eye protection : Required  
Hand protection : Required

Industrial hygiene : Immediately change contaminated clothing. Apply skin-protective barrier cream. Wash hands after working with substance.

## 9. PHYSICAL & CHEMICAL PROPERTIES

Form : Crystals  
Colour : Colourless  
Odour : Weakly aromatic  
pH value at 6 g/l H<sub>2</sub>O (20° C) : 2  
Melting temperature : 131 ° C  
Boiling temperature (1013hPa) : 285 °C  
Ignition temperature : 580 ° C  
Flash point : 152 °C c.c.  
Explosion limits lower : 1.7 vol%  
Upper : 10.5 vol%  
Vapour pressure (20°C) : <0.01 hPa  
Relative vapour density : 6.6  
Density (20° C) : 1.527 g/cm<sup>3</sup>  
Bulk density : 500-700 kg/m<sup>3</sup>  
Solubility in water(20°C) : 6 g/l  
Ethanol (20 °C) : Soluble  
Log Pow : 0.73 (calculated on the free acid (experimental)).

10. **STABILITY AND REACTIVITY** : Conditions to be avoided : No information available.  
Substance to be avoided : Water (heat), alkali hydroxides, nitric acid, alcohols



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(heat), glycerol(heat), metallic oxides(heat), air (heat), nitrites(heat), Oxidizing agent, metals+ Moisture.

Hazardous decomposition products : No information available.

Further information : Danger of dust explosion.

## 11. TOXICOLOGICAL INFORMATION:

Acute toxicity: LD<sub>50</sub> (oral, rat): 1530 mg/kg.  
LC 50 (inhalation, rat): > 0.21 mg/l/1 h.  
LD 50 (dermal, rabbit): > 10000 mg/kg.

Specific symptoms in animal studied:

Eye irritation test (rabbit): Irritations.

Skin irritation test (rabbit): No irritation (OECD 404)

The literature data available to us do not conform with the labelling prescribed by the EC. The EC has dossiers which have not been published.

Subacute to chronic toxicity :

Sensitization :

Sensitization test (guinea pig) : may cause sensitisation.

Experience in man : May cause sensitisation.

Bacterial mutagenicity : Ames test: negative.

Further toxicological information :

Decomposition of the substance with tissue moisture.

After swallowing : Irritations of mucous membrane in the mouth, pharynx, oesophagus and gastrointestinal tract.

Systemic effects : drop in blood pressure, collapse.

After inhalation of dust: mucosal irritations, dyspnoea, coughing. Risk of airways sensitisation.

After skin contact : Irritations. Risk of skin sensitisation.

After eye contact : Irritations, Risk of serious damage to eyes.

Further data :

The product should be handled with the care usual when dealing with chemicals.

## 12. ECOLOGICAL INFORMATION

Biologic degradation :

Biodegradation : 99% /14 d modified OECD screening test.

Readily biodegradable..

Ecotoxic effects : Biological effects : Toxic for aquatic organisms.

Harmful effect due to pH shift.

Fish toxicity : L. idus LC<sub>50</sub> : 313 mg/l/48 h.

Bacterial toxicity : activated sludge EC : > 1000 mg/l/3 h.

Further ecologic data : BOD 44-78 % from TOD/5 d. TOD: 1.62 g/g

No ecological problems are to be expected when the product is handled and



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used with due care and attention.

## 13. DISPOSAL METHOD

Chemicals must be disposed of in compliance with the respective national regulations. Under [www. retrologistik .de](http://www.retrologistik.de) you will find country- and substance-specific information as well as contact partners.

Nice product packaging must be disposed of in compliance with the county-specific regulations or must be passed to a packaging return system. Under [www. retrologistik. de](http://www.retrologistik.de) you will find special information on the respective national conditions as well as contact partners

## 14. TRANSPORT INFORMATION :

Land transport	:	GGVS, GGVE, ADR,RID
Classification	:	8/31 c
Name	:	2214 PHTHALSAEUREANHYDRID
Transport by sea	:	IMDG,GGVsee
Classification	:	8/UN 2214/PG 111
Ems	:	8-05
Name	:	PHTHALIC ANHYDRIDE
Transport by air	:	ICAO, IATA
Classification	:	8/UN 2214/PG 111
Name	:	PHTHALIC ANHYDRIDE

## 15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : Xn Harmful

R-phrases : 22-37/38-41-42/43 Harmful if swallowed. Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitisation by inhalation& skin contact.

S-phrase : 23-24/25-26-37/39-46 Do not breathe vapour . Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection. If swallowed, seek medical advice immediately and show this container or label.

EC-No : 201-607-5 EC label  
Water pollution class : -----



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### **16. OTHER INFORMATION**

Chapter 8 : specific control parameter.  
Chapter 11 : toxicological information.  
Chapter 12 : ecological information .

General update.

Regional representation

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

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 the properties of the product.