

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : B 13929

Product Name : **BENZOYL CHLORIDE**

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 Telefax No. : 0484 2802483

2. COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms : Benzoic Acid Chloride

CAS-No : 98-88-4

Ec-Index No. : 607-012-00-0

Molar Mass : 78.12

EC-No. : 202-710-8

Molecular Formula : C_7H_5CIO

3. HAZARDS INDEX : causes burns.

4. FIRST AID MEASURES

After inhalation: fresh air. Consult doctor if feeling unwell.

After skin contact: wash off with plenty of water

After eye contact: rinse out with plenty of water with eyelids held open.

After swallowing: make victim drink plenty of water, avoid vomiting, summon doctor. Do not

attempt to neutralize.



Product Name : BENZOYL CHLORIDE

5. FIRE - FIGHTING MEASURES

Suitable extinguishing media: powder foam, CO₂.

Special risks: Combustible. Vapours heavier than air. Hydrogen may form upon contact with metals do not allow the product to come in contact with water. Keep away from the sources of ignition. The following may develop in the event of fire: HCl, chlorine. Take measures to prevent electrostatic charging.

Special protective equipment for fire fighting: Do not stay in dangerous zone without suitable chemical protection clothing and self contained breathing apparatus.

Other Information: contain escaping vapours with water.

6. ACCIDENTAL RELEASE MEASURES

Person – related precautionary measures: Do not inhale vapours/aerosols. Avoid substance contact.

Environmental protection measures: Do not allow to enter sewage system.

Procedures for cleaning/absorption: Take up with liquid absorbent material (eg

chemizorb). Forward for disposal.

Clean up affected area.

7. HANDLING AND STORAGE

Handling: Keep work place dry. Do not allow the product to come into contact with water.

Storage: Tightly closed in a well ventilated place, away from sources of ignition and heat.

Storage temperature: No restrictions...



Product Name : BENZOYL CHLORIDE

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Personal protective equipment

Respiratory protection: required when vapours/Aerosols are generated.

Eye protection: required

Hand protection: required

Industrial hygiene: Change contaminated clothing. Application of skin protective barrier cream recommended. Wash hands after working with substance. Under no circumstances eat or drink at work place.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid

Colour : Colourless

Odour : Pungent

pH value at 1gm/lt. H_2O (20 $^{\circ}C$) : 2

Melting temperature : 0.6° C

Boiling temperaturen (1013 hPa) : 197.2° C

Ignition temperature : 600° C

Flash point : $72 \, ^{0}\text{C}$

Explosion limits lower : 2.5 Vol%

Upper : 27 Vol%

Relative vapour density : Not available Density (20° C) : 1.21 g/cm^{3}

Solubility in water (20° C) : Decomposition

Ether $(20 \, {}^{\circ}\text{C})$: Soluble

Log P(oct) : 2.2 (calculated)

Further information : Distillable in an undecomposed state at normal pressure.



Product Name : BENZOYL CHLORIDE

10. STABILITY AND REACTIVITY

Conditions to be avoided: strong heating.

Substance to be avoided: alcohols, sulphoxides alkali metals

alkaline earth metals, water, strong oxidising agents, amines.

Hazardous decomposition products: HCl, chlorine

Further information: Sensitive to moisture; incompatible with various metals. explosible

with air in a vaporous / gaseous state when heated.

11. TOXICOLOGICAL INFORMATION

Acute toxicity : LD_{50} (oral, rat) : 2460 mg/kg;

LD₅₀ (inhalation, rat): 1.45 mg/lt./4 h:

LD₅₀ (dermal, rabbit): 790 mg/kg;

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:

Noncarchnogenic in animal experiments. No indication of mutagenic activity.

Bacterial mutagenicity: Salmonella typhimurium: negative.

Escherichia coil : negative. Ames – Test : negative.

Further toxicological information: Decomposition of the substance with tissue moisture.

When vapours/aerosols are generated:

After inhalation: Irritations of the mucous membranes, coughing, and dyspnoea. Inhalation may lead to the formation of ocdemas in the respiratory tract. Latency time until onset of action.

After skin contact: Burns

After eye contact: Burns. Risk of blindness! Lacrimal irritation due to vapours.



Product Name : BENZOYL CHLORIDE

After swallowing: irritations of mucous membranes in the

mouth, pharynx, oesophagus and gastrointestinal tract. Risk

of perforation in the oesophagus and stomach.

Skin irritation test (rabbit) : Burns Eye irritation test (rabbit) : Burns

Further data: The product should be handled with the care usual when dealing with

chemicals.

12. ECOLOGICAL INFORMATION

Abiotic degradation: Rapid degradation

Biologic degradation: Readily biodegradable.

Behavior in environmental compartments. No appreciable

bioaccumulation potential is to be expected (log P(o/w) 1-3).

Ecotonic effects:

Biological effects: Harmfull effect on aquatic organisms.

Fish toxicity: P.promelas LC_{50} : 35 mg/lt./96 h; Bacterial toxicity: EC_{50} : >100 mg/lt./180 min;

Further ecological data: Product reacts with water. The following may develop after reaction of the product with water: hydrochloric

acid

The following applies to HCl in general: Harmful effect on

aquatic organisms. Harmful effect due to pH shift.



Product Name : BENZOYL CHLORIDE

Biological effects: hydrochloric acid (including such due to reaction): lethal for fish as from 25 mg/lt.; Leuciscus idus LC_{50} : 862 mg/lt. (1N – solution). Harmful effects begin at: plants 6 mg/lt. Does not cause biological oxygen deficit.

Do not allow to enter waters, waste water or soil!

13. DISPOSAL METHOD

There are no uniform EC regulations for the disposal of Chemicals/ residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste.

Disposal in compliance with official regulations. Handle contaminated packaging as in the same way as the substance itself. If not officially specified differently, non—contaminated packaging may be treated like household waste or recycled.

14. TRANSPORT INFORMATION

Transport over land ADR/RID and GGVS/GGVE:

GGVS/GGVE class: 8 Number and letter: 35b

ADR/RID class : 8 Number and letter : 35b

Product Name : BENZOYL CHLORIDE

Name of material : BENZOYL CHLORIDE

Sea transport :

IMDG class: 8 UN –No.:1736 Packaging group: II

Ems : 8-02 MFAG: 700

Correct technical name: BENZOYL CHLORIDE

Air transport

ICAO-TI and IATA-DGR:

ICAO/IATA class: 8 UN/ID-No.: 1736 Packaging group: II

Correct technical name: BENZOYL CHLORIDE

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : C Corrossive

R- Phrases : 34 Causes burns.

S-phrases : 26-45

In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice. In case of accident or if you feel unwell, seek

medical advice mmediately.

Water pollution class : 2 (polluting substance)



Product Name : BENZOYL CHLORIDE

16. OTHER INFORMATION

Reason for alteration

General update.

Change in transport classification.

Addition in the chapter ecology.

Addition in the chapter toxicology.

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.