



Specialized in chemicals

Hefei TNJ Chemical Industry Co.,Ltd.

B911 Xincheng Business Center,
Qianshan Rd. Hefei 230022 China

Tel : (0086) 551 5418695

Fax: (0086) 551 5418697

Email: info@tnjchem.com

Site: www.tnjchem.com

Material Safety Data Sheet

Benzoyl chloride

Section 1: Chemical Product and Company Identification

Product name: Benzoyl chloride

Molecular formula:C7H5ClO

CAS No.: 98-88-4

Molecular weight: 140.57

Synonyms: BENZOIC ACID CHLORIDE

Contact Information for Emergency: (0086) 551 5418696

Hefei TNJ Chemical Industry Co.,Ltd.

B911 Xincheng Business Center

Qianshan Road, Hefei

230004Anhui

China

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Section 2: Composition and Information on Ingredients

Substances

Formula : C7H5ClO

Molecular Weight : 140,57 g/mol

Component Concentration

Benzoyl chloride

CAS-No. 98-88-4

EC-No. 202-710-8

Index-No. 607-012-00-0

Section 3: Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 4)

Acute toxicity, Inhalation (Category 4)

Acute toxicity, Dermal (Category 4)

Skin corrosion (Category 1B)

Skin sensitization (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Causes burns. Harmful by inhalation, in contact with skin and if swallowed. May cause sensitization by skin Contact

Label elements

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

Pictogram

Signal word

Danger

Hazard statement(s)

H302 + H312 + H332

Harmful if swallowed, in contact with skin or if inhaled

H314

Causes severe skin burns and eye damage.

H317

May cause an allergic skin reaction.

Precautionary statement(s)

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.

P310

Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard

none

Statements

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)

R-phrase(s)

R20/21/22

Harmful by inhalation, in contact with skin and if swallowed.

R34

Causes burns.

R43

May cause sensitization by skin contact.

S-phrase(s)

S26

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39

Wear suitable protective clothing, gloves and eye/face protection.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other hazards

Lachrymator.

Lachrymator.

Section 4: First Aid Measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Lachrymation, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment needed

no data available

Section 5: Fire and Explosion Data

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Water hydrolyzes material liberating acidic gas which in contact with metal surfaces can generate flammable and/or explosive hydrogen gas. Use water spray to cool unopened containers.

Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

Section 7: Handling and Storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas. Moisture sensitive.

Specific end uses

no data available

Section 8: Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Immersion protection

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm

Break through time: > 480 min

Material tested: Vitoject® (Aldrich Z677698, Size M)

Splash protection

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm

Break through time: > 30 min

Material tested: Vitoject® (Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de,
test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

| | |
|---|---|
| a) Appearance | Form: clear, liquid Colour: colourless |
| b) Odour | Pungent |
| c) Odour Threshold | no data available |
| d) pH | 2 at 1 g/l |
| e) Melting point/freezing Point | Melting point/range: -1 ° C |
| f) Initial boiling point and boiling range | 198 ° C |
| g) Flash point | 72 ° C - closed cup |
| h) Evaporation rate | no data available |
| i) Flammability (solid, gas) | no data available |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 27 %(V) Lower explosion limit: 2,5 %(V) |
| k) Vapour pressure | 1 hPa at 32 ° C |
| l) Vapour density | 4,85 - (Air = 1.0) |
| m) Relative density | 1,211 g/mL at 25 ° C |
| n) Water solubility | 2 g/l |
| o) Partition coefficient: n- octanol/water | no data available |
| p) Autoignition temperature | 600 ° C at 1.013 hPaAuto-flammability |
| q) Decomposition temperature | no data available |
| r) Viscosity | no data available |
| s) Explosive properties | no data available |
| t) Oxidizing properties | no data available |

Other safety information

no data available

Section 10: Stability and Reactivity Data

Reactivity

no data available

Chemical stability

no data available

Possibility of hazardous reactions

no data available

Conditions to avoid

Exposure to moisture.

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents, Strong bases, Alcohols

Hazardous decomposition products

Other decomposition products - no data available

Section 11: Toxicological Information

Information on toxicological effects

Acute toxicity

LD50 Oral - rat - female - 1.900 mg/kg

LD50 Oral - rat - male - 3.619 mg/kg

LC50 Inhalation - rat - 2 h - 1.870 mg/m³

LD50 Dermal - rabbit - 790 mg/kg

Skin corrosion/irritation

Skin - rabbit - Severe skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation

Respiratory or skin sensitization

Maximisation Test - guinea pig - OECD Test Guideline 406 - May cause sensitization by skin contact.

Germ cell mutagenicity

no data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 2A - Group 2A: Probably carcinogenic to humans (Benzoyl chloride)

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion Harmful if swallowed. Causes burns.

Skin Harmful if absorbed through skin. Causes skin burns.

Eyes Causes eye burns.

Signs and Symptoms of Exposure

spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Lachrymation, Material is extremely

destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: DM6600000

Section 12: Ecological Information

Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 34,1 mg/l - 96 h
 LC0 - Danio rerio (zebra fish) - 7,5 mg/l - 96 h

Persistence and degradability

Biodegradability aerobic - Exposure time 20 d
 Result: 95 % - Readily biodegradable.
 Method: Closed Bottle test

Bioaccumulative potential

no data available

Mobility in soil

no data available

Results of PBT and vPvB assessment

no data available

Other adverse effects

Harmful to aquatic life.
 no data available

Section 13: Disposal Considerations

Waste treatment methods

Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14: Transport Information

UN number

ADR/RID: 1736 IMDG: 1736 IATA: 1736

UN proper shipping name

ADR/RID: BENZOYL CHLORIDE
 IMDG: BENZOYL CHLORIDE
 IATA: Benzoyl chloride

Transport hazard class(es)

ADR/RID: 8 IMDG: 8 IATA: 8

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

no data available

Section 15: Other Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

Chemical Safety Assessment

no data available

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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