



SAFETY DATA SHEET

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : N11579
Product Name : Nitrobenzene

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 :

CAS-No:	98-95-3	Ec-Index No.	:	609-003-00-7
Molar Mass :	123.11	EC-No.	:	202-716-0
Molecular Formula :	C ₆ H ₅ NO ₂			

3. HAZARDS IDENTIFICATION : Toxic by inhalation, in contact with skin and if swallowed. Possible risks of irreversible effects.
Toxic danger of serious damage to health by prolonged exposure through inhalation and in Contact with skin. Toxic to aquatic organisms, May cause long term adverse effects in the Aquatic environment. Possible risks of impaired fertility.

4. FIRST AID MEASURES : After inhalation: fresh air. Summon doctor
After skin contact: wash off with plenty of water. Remove contaminated clothing.
Dab with polyethylene glycol 400.
After eye contact: rinse out with plenty of water
With eyelids held open. Summon eye specialist.
After swallowing: make drink plenty of water,
Induce vomiting Summon doctor.



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5. **FIRE – FIGHTING MEASURES** : Suitable extinguishing media: powder foam, CO₂.
Special risks: Combustible. Vapours heavier than air. Formation of explosible mixtures possible with air. Take measures to prevent electrostatic charging. Development of hazardous combustion gases or vapours possible in the event of fire. The following may develop in the event of fire :nitrogen oxides, carbon monoxide.
Special protective equipment for fire fighting:
Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Other Information:

Prevent fire – fighting water from entering surface water or ground water.

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6. **ACCIDENTAL RELEASE MEASURES** : Do not inhale vapours / aerosols . Avoid Substance contact. Ensure supply of fresh air in enclosed rooms.
Environmental protection measures:
Do not allow entering sewage system.
Procedures for cleaning / absorption:
Take up with liquid absorbent material (Eg chemizorb).
Forward for disposal. Clean up affected area.

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7. **HANDLING AND STORAGE** : Handling: Ensure adequate exhaustion and ventilation . do not feed back exhausted air into working area.
Storage: Tightly closed in a well ventilated Place, away from sources of ignition and heat.
Accessible only for authorised persons.
Storage temperature : no restrictions.
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8. EXPOSURE CONTROLS /PERSONAL PROTECTIVE EQUIPMENT

Personal Protection

Respiratory protection: required when vapours / Aerosols are generated. Filter A (acc. to DIN 3181) for vapours of organic compounds.

Eye protection: required

Hand protection: required

Protective clothing should be selected for the Working place depending on concentration and quantity of the hazardous substance handled.

The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

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.

Other protective equipment: suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	liquid
Colour	:	yellow
Odour	:	bitter almond like
Melting temperature	:	5.7°C
Boiling temperature	:	211 °C
pHvalue		
at 1g/l H ₂ O(20°C)	:	~8.1
Ignition temperature	:	480 °C
Flash point	:	88 °C
Explosion limits lower	:	1.8 Vol%
Upper	:	40 Vol%
Relative vapour density	:	Not available
Density (20°C)	:	1.20 g/cm ³



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Solubility in

water (20⁰C) : 1.9 g/l
water (25⁰C) : 3.8g/l
water (25⁰C) : 1.78g/l
Refractive index : 1.55296

10. STABILITY AND REACTIVITY

Conditions to be avoided: Strong heating.

Substance to be avoided: strong oxidising agents,
explosive decomposition, nitric acid, reducing agents, aluminium halides,
alkali metals, nitrogen oxides,
peroxi compounds, organic nitro compounds,
chlorosulfonic acid

Hazardous decomposition products:

The following may develop in the event of fire

Nitrogen oxides, carbon monoxide.

Further information: Explosible with air in a vaporous/ gaseous state when heated, steam

Volatile, incompatible with various plastics.

11. TOXICOLOGICAL INFORMATION : Acute Toxicity

LD₅₀(dermal, rat):2100 mg/kg

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

Subacute to chronic toxicity

The carcinogenic potential requires further clarification.

Further toxicological information

After inhalation of vapour : toxic, absorption.

After skin contact: irritations, skin absorption.

After eye contact: irritations

The following applies to aromatic nitro compounds in general; systemic effect ;methaemoglobinaemia with headache, cardiac dysrhythmias, drop in blood pressure, dyspnoea, and spasms ;CNS disorders.



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12. ECOLOGICAL INFORMATION

Ecotoxic effects

Biological effects: Toxic for aquatic organisms.

Fish EC₁₀:10mg/l

Lidus LC₅₀:60mg/l

Bnrerio LC₅₀:110mg/l

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

Further ecological data

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

Biological degradation:

Readily degradable with water.

Behaviour in environmental compartments:

Distribution :logP(oct):0.8, Low bioaccumulation potential.

13. DISPOSAL METHOD

Product : There are no uniform EC regulations for the disposal of chemicals or 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 .

Packaging : 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 .



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14. TRANSPORT INFORMATION

Transport over land

ADR/RID and GGVs/GGVE : GGVs/GGVE class: 6.1 Number and letter: 12b
ADR/RID class : 6.1 Number and letter: 12b
Name of material : 1662 NITROBENZENE

River transport AND/ADNR: Not examined

Sea transport IMDG : IMDG class: 6.1 UN -No.: 1662 Packaging group: II
Ems : 6.1-02 MFAG: 335

Correct technical name: NITROBENZENE- MARINE POLLUTENT

Air transport

ICAO-TI and IATA-DGR: ICAO/IATA class: 6.1 UN/ID-No.: 1662 Packaging group: II
Correct technical name: NITROBENZENE

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : T Toxic
N Dangerous for the environment

R- Phrases : 23/24/25-40-48/23/24-51/53-62

Toxic by inhalation, in contact with skin and if swallowed. Possible risks of irreversible effects. Danger of serious damage to health by prolonged exposure through inhalation and in contact with skin. Toxic to aquatic organisms, May cause long term adverse effects in the aquatic environment. Possible risks of impaired fertility.

S-phrases : 28-36/37-45-61
After contact with skin wash immediately with plenty of water, if possible also with polyethylene glycol 400. wear suitable protective clothing and gloves. Avoid release to environment.

Water pollution class : 2 (polluting substance)

16. OTHER INFORMATION

Reason for alteration

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
