

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No.	:	M 11629
Product Name	:	CHLOROBENZENE(MONOCHLORO BENZENE)
Manufacturer / supplier identit	fication	
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 : Monochlorobenzene ; benzene chloride ; phenyl chloride

CAS-No.	:	108-90-7	EC-No.	:	203-628-5
EC-Index –No.	:	602-033-00-1	Molar mass	:	112.56
Molecular formula	:	C ₆ H ₅ Cl			

3. HAZARDS IDENTIFICATION :Flammable. Harmful by inhalation. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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 the eyelid held wide open.

 Summon eye specialist.

 After inhalation : Fresh air. If necessary, apply mouth-to-mouth

 resuscitation or mechanical ventilation.

 After swallowing : Administer liquid paraffin, avoid vomiting(risk of aspiration).

 Summon doctor. If victim is unconscious: lateral recumbent position.

5. FIRE – FIGHTING MEASURES

Suitable extinguishing media : Powder, foam.

NICE <u>safety data sheet</u>

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	Fire extinguisher : Powder, carbon dioxide.
	Special risks: Combustible. Vapours heavier than air. Development
	of hazardous combustion gases or vapours possible in the event
	of fire. Formation of explosive mixtures possible with air.
	The following may develop in event of fire: hydrochloric acid, phosgene.
	Special protective equipment for fire fighting : Do not stay
	in dangerous zone without suitable chemical protection clothing
	and self-contained breathing apparatus.
	Other information : Take measures to prevent electrostatic charging.
	Prevent fire-fighting water from entering surface water or groundwater.
6. ACCIDENTAL	RELEASE MEASURES
Person-related p	recautionary measures : Do not inhale vapours/aerosols.
	Ensure supply of fresh air in enclosed rooms.

Procedures for cleaning/absorption: Take up with liquid- absorbent material (e.g. Chemizorb). Forward for disposal. Clean up effected area.

Enviornmental-protection measure : Do not allow to enter sewerage system; risk of explosion.

7. HANDLING AND STORAGE

Handling : take measures to prevent electrostatic charging.

Storage : Tightly closed . In a well-ventilated place. Keep away from sources of ignition and heat. At $+15^{\circ}$ C to $+25^{\circ}$ C.

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8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Personal protective equipment

Protective clothing should be selected specifically for the working place,

depending on concentration and quantity of the hazardous substanceshandled . The resistance of the protective clothing to chemicals shouldbe ascertained with the respective supplier.Respiratory protection : Required when vapours/aerosols are generated.Eye protection : RequiredHand protection : Required

Industrial hygiene : Change contaminated clothing . Application of skinprotective barrier cream recommended. Wash hands after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	Liqu	id		
Colour	:	Colo	Colourless		
Odour	:	Benz	Benzene-like		
pH value (20° C)		:	Neutral		
Melting temperatur	e	:	45 ° C		
Boiling temperature	e	:	132 ° C		
Ignition temperatur	e	:	590 ° C		
Flash point		:	28 ° C		
Explosion limits lo	ower	:	1.3 Vol%		
Ul	oper	:	11 Vol%		
Vapour pressure (2	20° C)	:	12 hPa		
Relative vapour der	nsity	:	Not available		
Density (20° C)		:	1.11g/cm^{-3}		
Solubility in water(20°C)	:	0.5 g/l		
Ethanol	(20°C)	:	Freely soluble		
Log P(oct)		:	2.84		

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10. STABILITY & RE	ACTIVITY	: Conditions to be avoided : Strong heating.
	Subst	nnces to be avoided : alkali metals, alkaline earth metals,
		oxidizing agent, sulfoxides.
	Hazar	dous decomposition products:
		In the event of fire: hydrochloric acid, phosgene
	Furth	er information : Inflammable ; steam-volatile; Incompatible with rubber.
	Solve	nt for resins and oils. Explosible with air in a vapours/gaseous state.

11.TOXICOLOGICAL INFORMATION

Acute toxicity: LD₅₀ (oral, rat): 1100 mg/kg;

 LC_{50} (inhalation, rat) : 2965 ppm(V).

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 : An embryotoxic effect need not be feared when the threshold limit value is observed.

Further toxicological information:

After skin contact : Danger of skin absorption.

After inhalation : Headache.

After swallowing : pain, vomiting(Risk of aspiration), diarrhoea.

Systemic effects : CNS disorders, tachycardia, drop in a blood pressure, agitation, spasms, ataxia (impaired locomotor coordination). Further data : The product should be handled with the care usual when dealing with chemicals.

12. ECOLOGICAL INFORMATION

Biologic degradation : Biological degradability : poor.

Behavior in environmental compartments : Distribution : log P(oct): 2.84. Evaluation number (FRG) (mammal) : 1.0;

NICE

SAFETY DATA SHEET

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	Evaluation number (FRG) (bacteria) : 4.8;
	Evaluation number (FRG) (fish): 4.7.
	Law bioaccumalation potential.
	Ecotoxic effects : Biological effects: Toxic for aquatic organisms.
	Aquatic organisms: aquatic organisms LC 50: 1 mg/l/96 h;
	Fish toxicity : L. idus LC_{50} : 0.02 mg/l ; S. gairdnerii LC_{50} : 7mg/l/96 h;
	Daphnia toxicity : Daphnia magna EC ₅₀ : 195 mg/l ;
	Algeal toxicity : M. aeruginosa EC_0 : 120 mg/l;
	Bacterial toxicity : Sc. quadricauda EC_0 : >390 mg/l;
	Protozoa : E. sulcatum EC_0 : > 390 mg/l;
	Further ecologic data : BOD ₅ : 0.03g/g ; COD : 0.41g/g ; ThOD : 2.06g/g
	May cause long-term adverse effects in the aquatic environment. Do not
	allow to enter waters, waste water, or soil.

13. DISPOSAL METHOD

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 recommended 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 in the same way as the substance itself. If not officially specified differently, noncontaminated packaging may be treated like household waste or recycled.

14. TRANSPORT INFORMATION

GGVS, GGVE, class	: 3	Number and let			
Transport over land		ADR, RID class	: 3	Number and letter :	31c



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ADR/RID & GGV	S/GGVE :	Name of material : 1134 CHLOROBENZENE		
Sea transport IMDC) :	IMDG class: 3.3UN-No. : 1134Packaging group : 111Ems: 3-07MFAG: 340Correct technical name: CHLOROBENZENE		
Air transport ICAO-TI & IATA-I	: DGR	ICAO/IATA class : 3UN/ID-No. : 1134Packaging group : 111Correct technical name: CHLOROBENZENE		

15. REGULATORY INFORMATION

Symbol	:	Xn N		Harmful Dangerous for the environment
R-phrases	:	10-20-:	51/53	Flammable. Harmful by inhalation. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase	:	24/25-0	61	Avoid contact with skin and eyes. Avoid release to the environment. Refer to special instructions/safety data sheets.
Water pollution	class	:	2	(polluting substance)

Labelling according to EC Directives

16. OTHER INFORMATION

Reason for alteration :

Change in labelling. General update.

The information contained here in is based on the present state of our knowledge.

It characterizes the product with regard to the appropriate safety precautions. It

does not represent a guarantee of the properties of the product.