

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

Catalogue No. : C 11829

Product Name : CHLOROFORM

Manufacturer / supplier identification

Company : NICE Chemicals (P) Ltd., Cochin, India

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#### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms: tri chloro methane

CAS-No : 67-66-3 Ec-Index No.: 602-006-00-4

EC-No. : 200-663-8 Molecular Formula: CHCl<sub>3</sub>

Molar mass : 119.38

## 3. HAZARDS IDENTIFICATION

Harmful if swallowed. Irritating to skin. Possible risks of irreversible effects. Harmful . Danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

#### 4. FIRST AID MEASURES

After inhalation: fresh air. If necessary apply mouth to mouth resuscitation or mechanical ventilation.



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After skin contact: wash off with plenty of water .Remove contaminated clothing

After eye contact: rinse out with plenty of water if pain persists

consult an eye specialist

After swallowing: Keep airways free. Risk of aspiration!

Sodium sulphate (1 tablespoon /1/4l water ). activated charcoal. No milk. No alcohols.

Summon doctor. Gastric lavage.

#### 5. FIRE – FIGHTING MEASURES

Suitable extinguishing media: In adaption to materials stored in immediate neighbourhood.

Special risks: Development of hazardous combustion gases or vapours possible in the event of fire. The following may develop in event of fire: HCl, Chlorine, phosgene Special protective equipment for fire fighting: Do not stay in dangerous zone without 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

Procedures for cleaning / absorption

Take up with liquid absorbent material. Forward for disposal.

Clean up affected area.

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

Avoid substance contact.

Environmental protection measures: Do not allow to enter sewage

system.

## 7. HANDLING AND STORAGE

Handling: No further requirements.

Storage : Tightly closed Dry .In a well ventilated place. At +15  $^{0}$  C to +25  $^{0}$  C.

# 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection : required when vapours/ aerosols are generated .

Eye protection: required

Hand protection: required



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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.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid

Colour : Colourless

Odour : Characteristic

PH value at  $10 \text{ g/l H}_2\text{O} (20^{\circ}\text{C})$  : Not available

Melting temperature :  $\sim 63^{\circ}$  C

Boiling temperature :  $61^{\circ}$ C

Ignition temperature : Not available

Flash point : Not available

Explosion limits lower : Not available

Upper : Not available

Density  $(20^{\circ} \text{ C})$  :  $1.47 \text{ g/cm}^{3}$ 

Solubility in water ( $20^{\circ}$ C) : 8 g/l



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#### 10. STABILITY AND REACTIVITY

Conditions to be avoided: strong heating.

Substance to be avoided: alkali metals, alkaline earth metals, strong alkalis, peroxi compounds, fluorine, alcoholates, ketones/ alkalis, alkali hydroxides/ alcohols, organic nitro compounds, alkali amides, oxygen ,nitrogen oxides, oxygen/alkalis, nitrogen oxides, non-metallic hydrogen compound, bis dimethyl tin.

Stabilizer: ethanol.

Hazardous decomposition products: in the event of fire: HCl, chlorine, phosgene.

Further information: Light- sensitive, heat sensitive.

#### 11. TOXICOLOGICAL INFORMATION

Acute toxicity : LD <sub>50</sub> (oral, rat): 933 mg/Kg

LC <sub>50</sub> (inhalation, rat): 75 mg/l/1h.

LD L  $_{o}$  (oral, human): 140 mg/Kg

LDL  $_{o}$  (inhalation, rat): 25000ppm(V)/5min .

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: The carcinogenic potential requires

further clarification.



The information available to us suggests that the risk of an embryotoxic effect must be considered probable. Pregnant woman should not exposed of the product.

Further toxicological information

After inhalation of vapours: coughing, dyspnoea.

After absorption: agitation, spasms, narcosis.

After skin contact: irritant effect.

After eye contact: Irritant effect ( mucosal irritations)

After swallowing: nausea, vomiting.

Further data: Cannot be excluded: Damage of liver, kidneys.

#### 12. ECOLOGICAL INFORMATION

Biologic degradation: Not degradable in water.

Behaviour in environmental compartments: Distribution: LogP(oct):1.97;

Low bio accumulation potential.

Ecotoxic effects: Biologic effects:

Toxic for aquatic organisms. Endangers drinking water supplies

if allowed to enter soil and or waters in large quantities.

Fish toxicity: L.idus LC<sub>50</sub>: 162mg/l; L.idus LC<sub>100</sub>: 176mg/l

Bacterial toxicity: Ps.putida EC<sub>0</sub>: 125mg/l

Algeal toxicity: M.aeruginosa EC<sub>0</sub>: 185mg/l; Sc. quadricauda

EC<sub>0</sub>: 1100mg/l; Protozoa: E.sulcatum EC<sub>0</sub>: >6560mg/l;

Aquatic organisms LC<sub>50</sub>: 10mg/l/96h;

Further ecologic data: BOD5: 0.02g/g; ; ThOD: 1346mg/g

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



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#### 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 & 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: 6.1 Number and letter:15c

ADR/RID class : 6.1 Number and letter:15c

Name of material : CHLOROFORM

River transport AND/ADNR: Not examined

Sea transport IMDG: IMDG class:6.1 UN –No.:1888 Packaging group: III

Ems : 6.1-02 MFAG: 340

Correct technical name: CHLOROFORM

Air transport

ICAO-TI and IATA-DGR: ICAO/IATA class: 6.1UN/ID-No.: 1888 Packaging group: III

Correct technical name: CHLOROFORM



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# 15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : Xn Harmful

R- Phrases : 22-38-40-48/20/22 Harmful if swallowed. Irritating to skin. Possible

risks of irreversible effects. Harmful . danger of

serious damage to health by prolonged exposure

through inhalation and if swallowed.

S-phrases : 36/37 Wear suitable protective clothing and gloves.

Water pollution class : 3 (highly 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.