

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

Catalogue No. : B 20479

Product Name : BARIUM CHLORIDE SOLUTION 10%

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

CAS-No : 10326-27-9

Ec-Index No. : 056-004-00-8

EC-No. : 233-788-1

Molecular Formula : BaCl<sub>2</sub>\*H<sub>2</sub>O

**3. HAZARDS IDENTIFICATION**: Harmful by inhalation and if swallowed.

## 4. FIRST AID MEASURES

After inhalation: Fresh air. consult doctor if feeling unwell

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: Make victim drink plenty of water. Induce vomiting subsequently administer sodium sulphate (1 table spoon /1/4 l water). If breathing stops immediately apply mechanical ventilation. If necessary also oxygen consult doctor if feeling unwell.



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# 5. FIRE - FIGHTING MEASURES

Suitable extinguishing media: In adaption to materials available in immediate neighbourhood

Special risks: Ambient fire may liberate hazardous vapours.

The following may develop in the event of fire: hydrochloric acid, chlorine

Other information: Non combustible. Contains escaping vapours with water. Prevent fire fighting water

from entering surface water or ground water.

Special protective equipment for fire fighting: Do not stay in dangerous zone without self contained

breathing apparatus.

# 6. ACCIDENTAL RELEASE MEASURES

Procedures for cleaning / absorption : Take up dry. Forward for disposal.

Clean up affected area.

Person – related precautionary measures:

Avoid generation of dusts. Do not inhale dusts.

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

# 7. HANDLING AND STORAGE

Handling: No further requirements.

Storage: Tightly closed . Dry . At  $+15^{\circ}$  C to  $+25^{\circ}$  C.

The data on storage temperature apply to the entire pack.

Accessible only for authorised persons.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

Respiratory protection: Required when dusts 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 : Odourless

pH value at 50 g/l  $H_2O(20^0 C)$  : ~ 5.2-8.2

Boiling temperature : Not available Ignition temperature : Not available Flash point : Not available

Explosion limits lower : Not available

Upper : Not available

Relative vapour density : Not available Density  $(20^{\circ}\text{C})$  : Not available

Solubility in water ( $20^{\circ}$ C) : 357 g/l

water (  $100^{0}$ C) : 587 g/l

# 10. STABILITY AND REACTIVITY

Conditions to be avoided: heating

Substance to be avoided: halogen halogen compounds, furan-2-percarbonic acid Hazardous decomposition products: in the event of fire: Hydrochloric acid, chlorine

Further information: Releases water of crystallisation when heated.



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# 11. TOXICOLOGICAL INFORMATION

Acute toxicity : LD<sub>50</sub> (oral, rat): 118 mg/Kg

Further toxicological information:

The following applies to soluble barium compounds in general: after swallowing mucosal irritation, nausea, salivation, vomiting, dizziness, pain, colics and diarrhoea. Systemic effects include: cardiac dysrhythmiss, bardycardia( subdued cardiac activity), rise in blood pressure, shock and circulatory collapse as well as muscular rigidity

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

#### 12. ECOLOGICAL INFORMATION

Ecotoxic effects: biologic effects

Toxic for aquatic organisms . Endangers drinking water supplies if allowed to enter soil or water. Formation of health hazardous mixtures possible with water.

Behaviour in environmental compartments:

Evaluation number(FRG)(bacteria): 1.5: Evaluation number (FRG)(Fish):

3.1; Evaluation number(FRG)( mammal): 5

Further ecologic data: The following applies to barium compounds in general:

Biologic effects: fish; lethal as from 158 mg/l: Salmo lethal from 158 mg/l( as BaCl<sub>2</sub>);L, idusLC<sub>50</sub>: 870 mg/l (as BaCl<sub>2</sub>);barium ions toxic for aquatic organisms; algae:Sc quadricauda toxic as from 34 mg/l;

Crustaceans: toxic as from 29 mg/l; hazard for drinking water.

Do not allow to enter water, 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 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

GGVS/GGVE class : 6.1 Number and letter: 60 c

Transport over land ADR/RID class 6.1 Number and letter: 60 c

ADR/RID and GGVS/GGVE: Name of material: BARIUM CHLORIDE

River transport AND/ADNR: Not examined

Sea transport IMDG : IMDG class : 6.1 UN –No. : 1564 Packaging group: III

Ems : 6.1-04 MFAG : 120

Correct technical name : BARIUM CHLORIDE

Air transport

ICAO/IATA class : 6.1/5.1 UN/ID-No. : 1564

ICAO-TI and IATA-DGR: Packaging group: III

Correct technical name : BARIUM CHLORIDE

## 15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : T Toxic

R- Phrases : 20-25 Harmful if swallowed and by inhalation



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S-phrases : 28 In case of accident or if you feel unwell, seek

medical advice immediately

Water pollution class : 1 (slightly 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.