



SAFETY DATA SHEET

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : M 16029
Product Name : **MALEIC ACID**

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 : 110-16-7 Ec-Index No. : 607-095-00-3
Molar Mass : 116.07 EC-No. : 203-742-5
Molecular Formula : C₄H₄O₄

3. **HAZARDS INDEX** : Harmful if swallowed . irritating to eyes, respiratory system, skin.

4. **FIRST AID MEASURES** : After inhalation : fresh air.

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

After eye contact : rinse out with plenty of water
With eyelids held wide open.

After swallowing : make victim drink plenty of Water, induce vomiting, summon doctor.



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5. FIRE – FIGHTING MEASURES : Suitable extinguishing media : water, carbon dioxide, foam, powder.

Special risks : Development of hazardous combustion gases or vapours possible in the event of fire .

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.

6. ACCIDENTAL RELEASE MEASURES

Person – related precautionary measures :

Avoid generation of dusts , do not inhale dusts .

Ensure supply of fresh air in enclosed rooms.

Environmental protection measures:

Do not allow to enter sewage system

Procedures for cleaning / absorption :

Take up dry. Forward for disposal .

Clean up affected area. Avoid generation of dusts.



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7. **HANDLING AND STORAGE** : Handling : No further requirements .

Storage : Tightly closed . Dry . At +15⁰C to +25⁰C

8. **EXPOSURE CONTROLS / PERSONAL PROTECTION** : Personal protective equipment

Respiratory protection : required when dusts are generated .

Eye protection : required

Hand protection : not 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.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

Form : powder, fine crystalline

Colour : white

Odour : slightly sourish.

Melting temperature : 132-135⁰ C

Boiling temperature : Not available

Ignition temperature : Not available



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Flash point : 127 °C
Explosion limits lower : Not available
Upper : Not available
Vapour pressure (20°C) : <0.1 hPa
Relative vapour density (20°C) : 4.0
Density : Not available
Solubility in water (25°C) : 78 gm/lt.
Ethanol (20 °C) : Freely Soluble
Ether (20 °C) : Freely Soluble
Thermal decomposition : >135°C

10. STABILITY AND REACTIVITY

Conditions to be avoided : No information available.

Substance to be avoided : No information available.

Hazardous decomposition products : No information available

11. TOXICOLOGICAL INFORMATION

Acute toxicity : LD50 (oral,rat) : 708 mg/kg

LD50 (dermal, rabbit) : 1560 mg/kg

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.

Further toxicological information :

After inhalation : Irritations of the mucous membranes, coughing, and dyspnoea



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After skin contact : Irritations

After eye contact : Irritations

After swallowing : Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

No description of any further symptoms in available.

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

12. ECOLOGICAL INFORMATION : Ecotoxic effects : Quantitative data on the ecological effect of this product are not available.

Further ecologic data : BOD5 : 38 Gew%

No ecological problems are to be expected when the product is handled and used with due care and attention.

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 .



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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 : 8 Number and letter : 39c
ADR/RID class : 8 Number and letter : 39c
Name of material : MALEIC ACID

Sea transport :

IMDG class : 8 UN -No. : 3261 Packaging group: III
Ems : 8-15 MFAG: 760
Correct technical name : MALEIC ACID

Air transport :

ICAO-TI and IATA-DGR :

ICAO/IATA class : 8 UN/ID-No. : 3261 Packaging group: III
Correct technical name : MALEIC ACID



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15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : Xn Harmful

R- Phrases : 22-36/37/38 Harmful if swallowed. Irritating to eyes, respiratory system and skin.

S-phrases : 26-28-37 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Wear suitable gloves. .

Water pollution class : 1 (slightly polluting substance)

16. OTHER INFORMATION

Reason for alteration

General update.

Change in product name.

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.
