



SAFETY DATA SHEET

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : M 14029
Product Name : MALEIC ANHYDRIDE

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 Tele fax No. : 0484 2802483

2. COMPOSITION / INFORMATION ON INGREDIENTS

Synonyms : 2,5-Furandione

CAS-No : 108-31-6 EC Index No. : 007-096-00-9
Molar mass : 98.06
Molecular Formula : C₄H₂O₃ EC –No. : 203-571-6

3. HAZARDS IDENTIFICATION : Harmful if swallowed . Causes burns. May cause sensitisation by inhalation and skin contact.

4. FIRST AID MEASURES : After skin contact : Wash off with plenty of water . Dab with polyethylene glycol 400. Immediately remove contaminated clothing.
After eye contact : Rinse out with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately summon eye specialist.
After inhalation : Fresh air. Summon doctor.
After swallowing : Make victim drink plenty of water (if necessary several litres), avoid vomiting (risk of perforation !). Immediately summon doctor. Do not attempt to neutralize.

5. FIRE – FIGHTING MEASURES : Suitable extinguishing media : Powder, foam, spray water.
Fire extinguisher : powder for glowing fire, carbon dioxide.
Special risks : Combustible .Forms explosive mixtures with air on intense heating . Development of hazardous combustion gases or vapours possible



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in the event of fire.

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Other information : Prevent fire-fighting water from entering surface water or ground water. Contain escaping vapours with water. Cool container with spray water from a safe distance.

6. ACCIDENTAL RELEASE MEASURES : Person-related precautionary measures : Avoid generation of dusts; do not inhale

dusts. Avoid substance contact . Ensure supply of fresh air in enclosed rooms.

Environmental –protection measures : Do not allow to enter sewerage system

Procedures for cleaning /absorption : Take up dry. Forward for disposal. Clean up affected area . Avoid generation of dusts.

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

Storage : At+ 15°C to + 25° C. Tightly closed.

8. EXPOSURE CONTROLS/PERSONAL : Respiratory protection : Require when dusts are generated.

PROTECTION Eye protection : Required

Hand protection : Required

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances 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. Work under hood. Do not inhale substance.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Scales
Colour : White
Odour : Aromatic

pH value : Not available
Viscosity dynamic(60°C) : 1.6 mPa *s
Melting temperature : 51-53 ° C
Boiling temperature : 202 °C
Ignition temperature : 475°C
Flash point : 103 °C
Explosion limits lower : 1.4 vol%
Upper : 7.1 vol%
Vapour pressure (40°C) : 1.3 hPa
(52.9°C) : 2.8 hPa
Relative vapour density : Not available
Density (55°C) : 1.32 g/cm³
Bulk density : 700-800 kg/m³
Solubility in water (20°C) : (decomposition)
Acetone (20°C) : Soluble
Thermal decomposition : > 200° C
Evaporation enthalpy (54°C) : 157.2 kj/mol

10. STABILITY AND REACTIVITY

Conditions to be avoided : No information available.
Substance to be avoided : Alkali metals, amines and strong alkalis.
Hazardous decomposition :products : No information available.
Further information : Sensitive to moisture.



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11. TOXICOLOGICAL INFORMATION: Acute toxicity: LD₅₀ (oral, rat): 481 mg/kg.
LD₅₀ (dermal, rabbit) : 2620 mg/kg.

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Subacute to chronic toxicity : An embryotoxic effect need not be feared
when the threshold limit value is observed

Further toxicological information :

After eye contact : Irritations.

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

After skin contact :Irritations .Risk of sensitisation.

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

No description of any further symptoms is 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 : No ecological problems are to be expected when the
product is handled and used with due care and attention.

12. 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 speci-fied



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differently, non-contaminated packaging may be treated like household waste or recycled.

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13. TRANSPORT INFORMATION

GGVS/GGVE class : 8 Number and letter : 31c
Transport over land ADR/RID class : 8 Number and letter : 31 c
ADR/RID & GGVS/GGVE Name of material : 2215 MALEINSAEUREANHYDRID

Sea transport IMDG IMDG class : 8 UN-NO. : 2215 Packaging group : 111
Ems : 8-05 MFAG : 700
Correct technical name : MALEIC ANHYDRIDE

Air transport ICAO-TI & IATA-DGR ICAO/IATA : 8 UN/ID-No. : 2215
Packaging group : 111
Correct technical name : MALEIC ANHYDRIDE

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol : C Corrosive

R- Phrases : 22-34-42-43 Harmful if swallowed. Causes burns. May cause sensitisation by inhalation and skin contact.

S-phrases : 22-26-36/37/39-45 Do not breathe dust. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice . Wear suitable protective clothing, gloves and eye face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

EC-No. : 203-571-6 EC label



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Water pollution class : 1 (slightly polluting substance)

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16. OTHER INFORMATION

Reason for alteration

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.
