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MATERIAL SAFETY DATA SHEET (MSDS)

MALEIC ANHYDRIDE LR

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : MALEIC ANHYDRIDE LR

Product code : M0128300500

Identification of the product : Maleic anhydride
 CAS No: 108-31-6
 EC No :203-571-6
 Annex No :607-096-00-9

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification SUVCHEM
 Chaitanya Tower, 2nd Floor, Office # 206,
 Siddharth Nagar, S.V. Road,
 Goregaon (West), Mumbai - 400062,
 Maharashtra, India.
 Contact: +91 22 28725393 / 94 / 95
 Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : Xn; R22
 C; R34
 Xn ; R42/43

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Skin corrosion - Category 1B - Danger (CLP : Skin Corr. 1B) H314
 Serious eye damage - Category 1 - Danger (CLP : Eye Dam. 1) H318
 Skin sensitisation - Category 1 - Warning (CLP : Skin Sens. 1) H317
 Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302
 Respiratory sensitization - Category 1 - Danger (CLP : Resp. Sens. 1) H334

2.2. Label elements

MATERIAL SAFETY DATA SHEET (MSDS)
MALEIC ANHYDRIDE LR
2. Hazards identification -DSD (continued)
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

: C : Corrosive

R Phrase(s)

: R22 : Harmful if swallowed.

R34 : Causes burns.

R42/43 : May cause sensitization by inhalation and skin contact.

S Phrase(s)

: S2 : Keep out of the reach of children.

S22 : Do not breathe dust.

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.

S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

Contains

: Maleic anhydride

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Danger

Hazard statements

: H314 : Causes severe skin burns and eye damage.

H302 : Harmful if swallowed.

H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 : May cause an allergic skin reaction.

Precautionary statements
• General

: P102: Keep out of reach of children.

P103: Read label before use.

P101: If medical advice is needed, have product container or label at hand.

• Prevention

: P285: In case of inadequate ventilation wear respiratory protection.

P280: Wear protective gloves, protective clothing, eye protection, face protection.

P260: Do not breathe dust, fume, gas, mist, vapours, spray.

P264: Wash thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P272: Contaminated work clothing should not be allowed out of the workplace.

• Response

: P302+P352: IF ON SKIN : Wash with plenty of soap and water.

P301+P330+P331: IF SWALLOWED : Rinse mouth. Do NOT induce vomiting.

P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P304+P341: IF INHALED : If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

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MATERIAL SAFETY DATA SHEET (MSDS)

MALEIC ANHYDRIDE LR

2. Hazards identification -DSD (continued)

- P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.
 P333+P313: If skin irritation or rash occurs : Get medical advice.
 P342+P311: If experiencing respiratory symptoms : Call a POISON CENTER or doctor.
 P363: Wash contaminated clothing before reuse.
- **Storage** : P405: Store locked up.
- **Disposal considerations** : P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Contains** : Maleic anhydride

2.3. Other hazards

Other hazards : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation : Maleic anhydride

EC No :203-571-6
 Annex No :607-096-00-9
 Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Maleic anhydride	: 100 %	108-31-6	203-571-6	607-096-00-9	----	Xn; R22 C; R34 R42/43 Skin Corr. 1B _ H314 Eye Dam 1 _ H318 Resp. Sens. 1 _ H334 Acute Tox. 4 (oral) _ H302 Skin Sens. 1 _ H317

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1. Description of first aid measures

- Inhalation** : If experiencing respiratory symptoms : Immediately call a POISON CENTER or doctor. Remove to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Immediately call a POISON CENTER or doctor. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs : Specific treatment (see on this label). Get medical advice. Remove/Take off immediately all contaminated clothing.
- Eye contact** : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

MATERIAL SAFETY DATA SHEET (MSDS)
MALEIC ANHYDRIDE LR
4. First aid measures (continued)

Ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms relating to use : Causes severe skin burns and eye damage.
 Causes serious eye damage.
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 May cause an allergic skin reaction.
 Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures
5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.
Surrounding fires : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.
 Thermal decomposition generates : Corrosive vapours.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.
Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection.
 Ventilate area.
For non-emergency personnel : Evacuate unnecessary personnel.

MATERIAL SAFETY DATA SHEET (MSDS)
MALEIC ANHYDRIDE LR
6. Accidental release measures (continued)
6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage
7.1. Precautions for safe handling

Handling : Wash contaminated clothing before reuse. Wash thoroughly after handling. Do not breathe dust, fume, gas, mist, vapours, spray. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

Storage regulation : Comply with applicable regulations.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection : Avoid all unnecessary exposure.

- **Respiratory protection** : In case of inadequate ventilation wear respiratory protection.
- **Hand protection** : Wear protective gloves.

MATERIAL SAFETY DATA SHEET (MSDS)
MALEIC ANHYDRIDE LR
8. Exposure controls/personal protection (continued)

- Skin protection : Wear suitable protective clothing.
- Eye protection : Chemical goggles or face shield.
- Others : When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits : No data available.

9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Solid.
Colour	: White crystals
Odour	: Sharp irritating acrid odor
Odour threshold	: No data available.
pH value	: Not applicable.
Melting point [°C]	: 530C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 4770C
Flammability (solid, gas)	: N/A
Flash point [°C]	: 1020C
Boiling point [°C]	: 2020C
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: 0.16 mm Hg @ 200C
Vapour pressure mm/Hg	: 0.16 mm Hg @ 200C
Vapour density	: 3,38
Density [g/cm3]	: 1,48
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: 16.3 g/100ml water @
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm2/s]	: N/A

9.2. Other information

MATERIAL SAFETY DATA SHEET (MSDS)
MALEIC ANHYDRIDE LR
9. Physical and chemical properties (continued)

Explosive properties	: N/A
Explosion limits - upper [%]	: N/A
Explosion limits - lower [%]	: N/A
Oxidising properties	: No data available.

10. Stability and reactivity
10.1. Reactivity

Reactivity	: Not established.
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10.2. Chemical stability

Chemical stability	: Stable under recommended storage conditions.
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10.3. Possibility of hazardous reactions

Hazardous reactions	: Not established.
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10.4. Conditions to avoid

Conditions to avoid	: Direct sunlight. Extremely high or low temperatures.
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10.5. Incompatible materials

Materials to avoid	: Strong acids. Strong bases.
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10.6. Hazardous decomposition products

Hazardous decomposition products	: Fumes. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : Corrosive vapours.
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11. Toxicological information
11.1. Information on toxicological effects
Acute toxicity

- Inhalation : Based on available data, the classification criteria are not met.
- Dermal : Based on available data, the classification criteria are not met.
- Ingestion : Harmful if swallowed.

Corrosion

- : Causes severe skin burns and eye damage.
- : Causes serious eye damage.

MATERIAL SAFETY DATA SHEET (MSDS)
MALEIC ANHYDRIDE LR
11. Toxicological information (continued)

Irritation	: Based on available data, the classification criteria are not met.
Sensitization	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Toxic for reproduction	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

12. Ecological information
12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations
13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Dispose of this material and its container to hazardous or special waste collection

MATERIAL SAFETY DATA SHEET (MSDS)
MALEIC ANHYDRIDE LR
13. Disposal considerations (continued)

point, in accordance with local, regional, national and/or international regulation.

14. Transport information
14.1. Land transport (ADR-RID)

Proper shipping name : MALEIC ANHYDRIDE
 UN N° : 2215
 H.I. nr : 80
 ADR - Class : 8
 Labelling - Transport : 8 : Corrosive substance.



ADR - Classification code : C4
 ADR - Group : III
 ADR - Packing instructions : P002 R001
 ADR - Limited Quantity : 5 KG
 ADR - Tunnel code : E : Passage forbidden through tunnels of category E.


14.2. Sea transport (IMDG) [English only]

Proper shipping name : MALEIC ANHYDRIDE
 UN N° : 2215
 IMO-IMDG - Class or division : 8 : Corrosive substance.
 IMO-IMDG - Packing group : III
 IMO-IMDG - Packing instructions : P002
 IMO-IMDG - Limited quantities : 5 kg
 IMO-IMDG - Marine pollution : No
 EMS-Nr : F-A S-B

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : MALEIC ANHYDRIDE
 UN N° : 2215

MATERIAL SAFETY DATA SHEET (MSDS)
MALEIC ANHYDRIDE LR
14. Transport information (continued)

IATA - Class or division	: 8 : Corrosive substance.
IATA - Packing group	: III
IATA - Passenger and Cargo Aircraft	: ALLOWED
- Passenger and Cargo - Packing instruction	: 860
- Passenger and Cargo - Maximum Quantity/Packing	: 25 kg
IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 864
- Cargo only - Maximum Quantity/Packing	: 100 kg
IATA - Limited Quantities	: 5 kg
ERG-Nr	: 8L

15. Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety, health and environmental regulations/legislation specific for the substance or mixture	: Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII	: The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV	: The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment	: It has not been carried out.
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16. Other information

Revision	: Revision - See : *
Abbreviations and acronyms	: PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
Sources of key data used	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
List of relevant R phrases (heading 3)	: R22 : Harmful if swallowed. R34 : Causes burns. R42/43 : May cause sensitization by inhalation and skin contact.
List of full text of H-statements in section 3	: H302 : Harmful if swallowed. H314 : Causes severe skin burns and eye damage. H317 : May cause an allergic skin reaction. H318 : Causes serious eye damage.

MATERIAL SAFETY DATA SHEET (MSDS)

MALEIC ANHYDRIDE LR

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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