

**MATERIAL SAFETY DATA SHEET**

Product Name: Maleic anhydried

CAS No.: 108-31-6

Version: 0

**1. Identification**

**Product Code** : 91875  
**Company Name** : Advent Chembio Private Limited  
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**2. Hazards Identification****Hazard classification**

Acute toxicity, Oral : Category 4  
Skin corrosion : Category 1B  
Respiratory sensitisation : Category 1  
Skin sensitisation : Category 1  
Specific target organ toxicity - repeated exposure, Inhalation : Category 1  
Specific target organ toxicity - repeated exposure, Oral : Category 2

**Label elements****Hazard symbol**

**Signal word** : Danger

**Hazard statement**

: Harmful if swallowed.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Causes damage to organs (Respiratory system) through prolonged or repeated exposure if inhaled.  
May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

**Precautionary statement**

: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wear protective gloves/ protective clothing/ eye protection/ face protection. Wear respiratory protection.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing.

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Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements

: None.

**3. Composition/information on ingredients**

<b>Ingredient</b>	<b>CAS No</b>
Maleic anhydried	108-31-6

**4. First Aid Measures****Description of first aid measures****General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**Inhalation**

: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Skin contact**

: Wash off with soap and plenty of water. Consult a physician.

**Eye contact**

: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Swallowed**

: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

**Most important symptoms and effects, both acute and delayed  
Indication of any immediate medical attention and special treatment needed Treatment**: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11  
: No data available

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**5. Fire fighting measures****Extinguishing media****Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.**Special hazards arising from the substance or mixture** : Carbon oxides**Advice for firefighters** : Wear self contained breathing apparatus for fire fighting if necessary**Further information** : Use water spray to cool unopened containers**6. Accidental Release Measures****Personal precautions, protective equipment and emergency procedures** : Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.**Environmental precautions** : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.**Methods and materials for containment and cleaning up** : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.**Reference to other sections** : For disposal see section 13.**7. Handling and Storage****Precautions for safe handling** : Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.**Conditions for safe storage, including any incompatibilities** : Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive.  
Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects**Specific end use(s)** : No data available**8. Exposure Controls Personal Protection****Control parameters****Components with workplace control parameters****Exposure controls****Appropriate engineering** : Handle in accordance with good industrial hygiene and safety

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- controls** : practice. Wash hands before breaks and at the end of workday.
- Personal protective equipment**
- Eye/face protection** : Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin Protection Hand protection** : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.  
Wash and dry hands.
- Body Protection** : Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection** : Respiratory protection is required.

**9. Physical and Chemical Properties**

- Appearance** : White powder
- Odor** : No data available
- pH** : No data available
- Melting point/freezing point** : 52 - 54 °C
- Initial boiling point and boiling range** : 200 °C
- Flash Point** : No data available
- Vapor pressure** : 0.2 hPa at 22 °C
- Vapor density** : No data available
- Relative density** : 1.48 g/cm<sup>3</sup> at 20 °C -
- Solubility in water** : No data available
- Solubility (other)** : No data available
- Formula** : C<sub>4</sub>H<sub>2</sub>O<sub>3</sub>
- Molecular Weight** : 98.06 g/mol

**10. Stability and Reactivity**

- Reactivity** : No data available
- Chemical stability** : Stable under recommended storage conditions.
- Possibility of hazardous reactions** : No data available
- Conditions to avoid** : No data available
- Incompatible materials** : Strong oxidizing agents, Strong acids, Strong bases, Strong reducing agents, Alkali metals, Amines
- Hazardous decomposition products** : No data available

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- Acute toxicity** : LD50 Oral - Rat - male and female - 1.090 mg/kg  
(OECD Test Guideline 401)  
LC50 Inhalation - Rat - 1 h - > 4.35 mg/l  
LD50 Dermal - Rabbit - female - 2.620 mg/kg
- Skin corrosion/irritation** : Skin - Rabbit  
Result: Causes burns. - 4 h
- Serious eye damage/eye irritation** : Eyes - Rabbit  
Result: Corrosive
- Respiratory or skin sensitization** : Result: May cause sensitisation by inhalation.
- Germ cell mutagenicity** : Ames test  
Salmonella typhimurium  
Result: negative  
OECD Test Guideline 475  
Rat - male and female  
Result: negative
- Carcinogenicity** : IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- Reproductive toxicity** : No data available
- Specific target organ toxicity - single exposure** : No data available
- Specific target organ toxicity - repeated exposure** : Inhalation - Causes damage to organs through prolonged or repeated exposure. - Respiratory system Oral - May cause damage to organs through prolonged or repeated exposure. - Kidney
- Aspiration hazard** : No data available

**12. Ecological Information**

- Toxicity** : Toxicity to fish static test LC50 - Oncorhynchus mykiss (rainbow trout) - 75 mg/l - 96 h
- Persistence and degradability** : Biodegradability Biotic/Aerobic - Exposure time 28 d  
Result: 73 - 81 % - Readily biodegradable
- Bioaccumulative potential** : No data available
- Mobility in soil** : No data available
- Other adverse effects** : Harmful to aquatic life.

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- Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws.
- Contaminated packaging** : Offer rinsed packaging material to local recycling facilities. Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14. Transport Information**

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
<b>DOT</b>	2215	MALEIC ANHYDRIDE	8	III	No
<b>IMDG</b>	2215	MALEIC ANHYDRIDE	8	III	No
<b>IATA</b>	2215	MALEIC ANHYDRIDE	8	III	No

**15. Regulatory Information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture  
No Data Available.

**16. Other Information****Issue Date** :01/08/2014**Version** : 0

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**MATERIAL SAFETY DATA SHEET****Product Name:** Maleic anhydried**CAS No.:** 108-31-6**Version:** 0**THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT(S).**