



maple biotech pvt. ltd.

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MATERIAL SAFETY DATA SHEET

Carboxymethylcellulose Sodium Salt of Low D. S.

LOW D.S. SODIUM CMC (MYLCEL)

According to the European Directive 1907/2006/ EC

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Carboxymethylcellulose Low D. S.; LOW D.S. SODIUM CMC

Product Use: Excipient for Pharmaceuticals

Product Description: Powder of Carbohydrate

Manufacturer: Maple Biotech Pvt. Ltd.

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SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL FAMILY: Cellulose Derivative

MOLECULAR FORMULA: $[C_6H_7O_2(OH)_v(OCH_2COONa)_w(OCH_2COOH)_y(OCH_2COO)_z]_x$

SYNONYM(S): Low Substituted Sodium Carboxymethylcellulose , Low Substituted Carmellose Sodium.
Low D.S. Carmellose Sodium

BRAND NAME(S): MYLCEL

GENERAL USE: Disintegrant/Dispersant for dietary supplement tablets and capsules.

<u>Chemical Name</u>	<u>CAS#</u>	<u>EC Class</u>
Modified cellulose gum	9004-32-4	Not classified as hazardous



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SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS:

- Off-white, free-flowing, odorless powder.
- Accumulation of overhead settled dust may form explosive concentrations in air when disturbed and dispersed.

POTENTIAL HEALTH EFFECTS: Expected to be minimally irritating to the eyes and skin.

In accordance with the regulation (EC) No 1272/2008, which will enter into force on 1st December 2010 and the directive 67/548/EEC, which will be repealed on 1st June 2015 :
Substance is not classified as dangerous.

SECTION 4. FIRST AID MEASURES

EYES: Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION: Drink plenty of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.

NOTES TO MEDICAL DOCTOR: Accelerate Modified Cellulose Gum is expected to have very low toxicity. Treatment is symptomatic and supportive.

SECTION 5. FIRE FIGHTING MEASURES

FLASH POINT AND METHOD: Not applicable

FLAMMABLE LIMITS: Not applicable

AUTOIGNITION TEMPERATURE: Not available

EXTINGUISHING MEDIA: Water

FIRE / EXPLOSION HAZARDS: As with many organic materials, excessive accumulation of dust on overhead structures may produce explosive concentrations when disturbed and dispersed by a small explosion that shakes down accumulated dust and causes, momentarily, an ignitable concentration.

FIRE FIGHTING PROCEDURES:

Recommended fire-fighting agents: Dry powder, carbon dioxide, water spray, foam.
Cool the containers exposed to the fire with water spray.

Protective equipment: Wear a complete fire suit and respiratory protection (insulating self-contained



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breathing apparatus).

Combustion products: Do not let dust accumulate: high risk of dust explosion.

Do not breathe smoke (CO, CO₂).

Additional information Prevent fire extinguishing water from contaminating surface or ground waters. Do not spray water directly on container to prevent product spills.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

SECTION 6. ACCIDENTAL RELEASE MEASURES

Individual precautions: Consult protection measures cited in paragraphs 7 and 8.

Avoid contact with the product. Avoid dust formation.

If spill is large, evacuate the personnel and only allow intervention by trained personnel equipped with safety apparatus.

Measures for environmental protection: If the product has entered a waterway and/or drainage system or has contaminated the ground and/or the vegetation, notify the competent authorities.

Cleaning measures: Collect the dry product using mechanical equipment and rinse the contaminated surface with plenty of water. (Precaution: product becomes slippery when wet).

Keep in suitable and closed containers for recycling or disposal of collected spill according to applicable regulation

SECTION 7. HANDLING AND STORAGE

These recommendations are applicable to the working area where the product is handled.

Handling: Avoid dust formation. Avoid inhalation and skin or eye contact. Do not drink or eat in working area. See paragraph 8.

Provide ventilation and adequate equipment disposal.

Fire prevention: Store away from ignition sources.

Prevent access to unauthorized personnel.

Storage: Store tightly closed container in a cool, dry and well ventilated area.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT: Use individual protective equipment in accordance with Directive 89/686/EEC



Compulsory protective

Equipment Select personal protective equipment according to the concentration and quantity of hazardous substances and workplace. Consult supplier with regards to the chemical resistance of protective equipment.



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Respiratory protection Wear a dust mask type P2 in poorly ventilated area.



Hand protection: Recommended gloves: PVC, Neoprene



Eye protection Wear safety goggles (EN 166) when dust concentration in the atmosphere is excessive.

Hygiene measures: Immediately remove any contaminated clothing. Preventive protection of skin. Wash hands and face after work. Maintain local and work areas perfectly clean, aerate and clean frequently.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Odorless

APPEARANCE: Off-white, free-flowing powder

pH: (In solution) 5.0 - 7.5 (1% solids dispersion)

PERCENT VOLATILE: Not more than 6% water, by weight

VAPOR PRESSURE: Not applicable

VAPOR DENSITY: (Air = 1): Not applicable

BOILING POINT: Not applicable

MELTING POINT: Not applicable

SOLUBILITY IN WATER: (% by weight) 1 - 10%

EVAPORATION RATE: (Butyl Acetate = 1): Not applicable

DENSITY: (Bulk) (H₂O=1) Approx 0.4 g/cc

COEFF. OIL/WATER: (K_{ow}) Not applicable

OXIDIZING PROPERTIES: Not applicable

COMMENTS:



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EXPLOSIVE PROPERTIES : Not applicable

FAT SOLUBILITY : Not available

SECTION 10. STABILITY AND REACTIVITY

The preparation is stable under the handling and storage conditions recommended in paragraph 7 of the MSDS.

- **Conditions to avoid:** Intense heat (> 130°C) / Dust formation.
- **Substances to avoid:** Bases, acids and oxidizing agents.
- **Hazardous decomposition products:** None.

SECTION 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Minimally irritating (rabbit)

SKIN EFFECTS: Minimally irritating (rabbit)

Primary Irritation Index = 0.1/8.0

DERMAL LD₅₀: >2 g/kg (rabbit)

ORAL LD₅₀: >5050 mg/kg (rat)

INHALATION LC₅₀: >0.13 mg/L/4 hr. (rat) (maximum attainable concentration, no mortality)

SENSITIZATION: (Skin) Non-sensitizing (guinea pig)

ACUTE EFFECTS FROM OVEREXPOSURE: No significant hazard in animal toxicity tests.

CHRONIC EFFECTS FROM OVEREXPOSURE: Cel-Ca-Dissol Carboxymethylcellulose Low D. S., a similar product, was negative (non-mutagenic) in the Ames test, and did not induce chromosome aberrations in rats. A 90-day animal study showed no adverse effects when administered in the diet. No adverse human effects known.

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: ACGIH: Not listed

COMMENTS: No data available for this product. The data presented above are based on a similar product,

SECTION 12. ECOLOGICAL INFORMATION

Use the product sensibly. Avoid release to the environment.



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Product is non-biodegradable but there are no long term harmful effects on the environment or aquatic organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

Product: Chemical products should be disposed of or recycled in accordance with national regulations.

Packaging: Packaging should be disposed of in accordance with the regulations applicable in each country or should be disposed of through a recycling packaging program.

SECTION 14. TRANSPORT INFORMATION

Exempt from transport classification and labelling.

SECTION 15. REGULATORY INFORMATION

Classification in accordance with: Directive 67/548/EEC (Dangerous substances) and its versions.

Regulation (EC) N°1272/2008 and its modifications (453/2010 Annex I) were also taken into consideration.

SECTION 16.

OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of Maple Biotech Pvt. Ltd.. It relates only to the specific product designated herein, and does not relate to use in combination with any other material or in any process. Maple Biotech Pvt. Ltd assumes no legal responsibility for use of or reliance upon this information.

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