

Technical Leaflet : SCMC (refined CMC)

Product Description

SCMC is the sodium salt of carboxymethylcellulose, purified to a CMC content of 98% minimum. A water soluble polymer used as an adhesive, thickener, rheology control agent, binder, stabilizer, protective colloid, film former.

Odourless, light cream to white in colour. A free flowing powder or granulate.

Technical information

pH 5.5 - 8.5 (2% solution), SCMC (a.k.a. CMC) is completely soluble in water and insoluble in solvents.

SCMC has a viscosity range of 300 - 600 centipoise, producing a medium viscosity conservation paste when mixed with water.

Usage

Simply mix with cold water to produce a medium viscosity conservation paste.

We recommend 5 gms SCMC to every 100 ml of water. Gradually add the SCMC to the water stirring the mix thoroughly as you do to reduce any risk of lumps forming.

To increase viscosity add more water.

Storage information

A non perishable powder. This product is hygroscopic, best storage will be achieved by keeping in a dry container and away from heat.

Product Safety

According to EEC legislation on dangerous substances and preparations SCMC / CMC is not hazardous. For complete information and prior to use please see the Safety Data Sheet.

Order code : AD19B

Pack sizes : 250 gms , 1 & 5 kilo units .

Product Data Sheet

Gabrosa PAC EHP

Appearance

Creamy hygroscopic granular product

TEST	LIMITS	METHOD
Sodium CMC, dry basis	98% min	F.C.C. IV
Moisture, as packed	8% max	ASTM-D1439
Degree of Substitution	0.7-0.95	ASTM-D1439
Sodium Chloride, dry basis	1% max	ASTM-D1439
pH of 1% solution (25 °C)	6.0-8.5	U.S.P. - XXI
Viscosity, as received -1% solution in distilled water (25°C)	5000-12000 mPa.s	Akzo SAM: 662.01 Brf. LVF Spindle # 4/30 rpm
Sieve Limit, retained on: -18 mesh ASTM (1.00mm) through -200 mesh ASTM (0.074mm) 10% max	5% max	Akzo Nobel method
Bulk Density		
Poured	350-600 kg/m ³	Akzo Nobel Method
Vibrated	400-700kg/m ³	ASTM D-1439

Date Issued: March 1996

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Material Safety Data Sheet

Gabrosa (High Purity Grade)

1.1 Product Name

GABROSA (High Purity grades)

1.2 Company

1.3 Emergency Telephone No.

Twinstar Chemicals, Tel. 020 8907 2944

2. Composition

SODIUM CARBOXYMETHYL CELLULOSE CAS No. 9004-32-4
High purity grades >99% purity EINECS No.
Purified sodium carboxymethyl cellulose Sodium CMC

3. Hazard Identification

The product is considered to be harmless to health and the environment if handled in the correct manner.

The dust in high concentrations over prolonged periods may produce slight irritation of the eyes, skin, mouth and nose.

4. First Aid Measures

INHALATION	Remove patient to fresh air. Treat any irritation symptomatically.
SKIN	:May produce slight irritation on prolonged contact. Wash with soap and water. If irritation persists seek medical attention.
EYES	:Excessive contact with eyes may produce slight irritation. Flush with clean water for 10 minutes. If irritation persists seek medical attention.

INGESTION

Not considered a hazard in normal industrial use.
 Do not induce vomiting. If patient vomits turn into the recovery position.
 Give copious amounts of water to drink.
 Get medical aid.

5. Fire Fighting Measures

Not classified as flammable, but will burn. If involved in a fire, extinguish with alcohol resistant foam, water spray, dry chemical, carbon dioxide sand or earth. If involved in a fire harmful fumes may be evolved. Self contained breathing apparatus should be worn. Excessive concentrations of dust in air may be an explosion hazard and can be ignited by sparks or static discharge.

6. Accidental Release Measures

Avoid contact with skin and eyes. Do not inhale dust. Sweep or vacuum up, avoid raising dust clouds. Spillage on floors becomes slippery when wet

7. Handling and Storage

Avoid generation of dust as these may form a flammable atmosphere. Keep in tightly closed containers and in a dry area away from heat and sources of ignition. Ensure good ventilation, if dust may be generated. Wear suitable gloves and eye protection. Wear protective equipment. Spillage on floors becomes slippery when wet.

8. Exposure Controls / Personal Protection

Occupational Exposure Standard (OES) EH 40/99

No specific exposure limit has been assigned, however, personal exposure should be kept below: -

10 mg/m³ [8 hour TWA] Total inhalable dust.

4 mg/m³ [8 hour TWA] Respirable dust.

The airborne concentration should be kept below the above exposure standards by the use of appropriate ventilation and collection measures. If this is not practicable then personal protection must be worn.

Respiratory protection	Wear an approved mask.
Hand protection	Wear plastic or rubber gloves.
Eye protection	Wear safety goggles

9. Physical and Chemical Properties

Appearance	Off-white powder
Odour	Odourless
Density	1.5 (approx)
Bulk density	0.5-0.8 g/cc
Dust explosion class	ST I
Dust explosion const.	22 bar m/s (similar material)
Max. explosion over pressure	5 bar (similar material)
Max. rate of pressure rise	80 bar/s (similar material)
Auto ignition temp.	Approx. 250°C
pH (1% soln.)	6.5-8.5
Viscosity (1% soln. at 25°C)	10-12000 mPa.S depending upon grade.

Solubility in water

Completely soluble

10. Stability

Stable under normal conditions. Avoid dust generation. If heated to decomposition will evolve nitrogen oxides.

11. Toxicological Information

The dust may cause slight irritation of the skin, eyes, mouth and nose on prolonged or repeated exposure. LD50 > 15000-27000 mg/kg. (oral, rat)

12. Ecological Information

This material is not classified as harmful to fish and is environmentally inert. It is inherently biodegradable and does not present any long term ecological problems. If very large quantities are discharged into rivers or sewers the emergency services should be informed.

13. Disposal Considerations

If the waste material cannot be reclaimed, it should be shovelled up and placed in a suitably labelled container in a safe place. The waste should be disposed of in accordance with The Environmental Protection Act 1990 and The Special Waste Regulations 1996.

14. Transport Information.

This material is not classified as dangerous for transport under UK or International Regulations.

15. Regulatory Information

This material is not classified under the CHIP Regulations for supply.

The following label is suggested: -

Safety phrases.

S 37/39 Wear suitable gloves and eye protection.

S 38 In case of insufficient ventilation, wear suitable respiratory equipment.

16. Other information

Sources of data: Manufacturers information, current legislation and regulations, Sax - Dangerous properties of industrial materials.

These high purity grades of CMC fully meet the standards laid down by the various authorities for use as food additives, including FAO/WHO Expert Committee on Food Additives (UN), the European Community, the US Food Chemical Codex and all common Pharmacopoeia. In Europe they are given the designation E-466.

It is however, recommended that the suitability for a particular food use is verified.

This information is based upon current knowledge and is intended to satisfy health and safety requirements. It is not a technical or compositional specification. This information does not constitute an assessment of risk in the workplace.

This material has many industrial uses. Twinstar Chemicals Limited and its subsidiary companies do not accept any liability arising out of the use of this information or the use, application or processing of this product. If in doubt contact the supplier.

Changes made to sections 1, 2, 3, 8, 13 & 16

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