



Shanghai Huiguang Fine Chemical Industry Co., Ltd. Product

Name: Hydroxypropyl methyl cellulose

ISSUE DATE: 1st Jan. 2014

Material Safety Data Sheet

Shanghai Huiguang Fine Chemical Industry Co., Ltd. encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Product and Company Identification

Product Name: Hydroxypropyl methylcellulose (HPMC)

Brand Name : MEILOSE

REACH REGISTRATION NO.:01-2119486990-24-0000

Company Identification:

Shanghai Huiguang Fine Chemical Industry Co., Ltd.

No. 888

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Shanghai Chemical Industry Park

Zhalin Town

Fengxian

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2. Composition, Information on ingredients

Chemical name	CAS NO,	CONTECT %(BY WEIGHT)
Hydroxypropyl methylcellulose	9004-65-3	Min. 90%
Water	7732-18-5	Max. 5%
Sodium chloride	7647-14-5	Max.1.5%

3. Hazards Identification

Emergency Overview

Color: White to very faintly off-white.

Physical State: Powder.

Odor: Mild.

Target organs: None.

Hazards of product:

CAUTION! May form explosive dust-air mixture. Slipping hazard. Avoid temperatures above 130°C.

OSHA Hazard Communication Standard

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Health Effects:

Use appropriate procedures to prevent opportunities for direct contact with the skin or eyes and to prevent inhalation.

Eye Contact: Solid or dust may cause irritation or corneal injury due to mechanical action. Skin

Contact: Essentially nonirritating to skin.

Skin Absorption: No adverse effects anticipated by skin absorption.

Inhalation: No adverse effects are anticipated from single exposure to dust.

Ingestion: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

4. First-aid measures

Eye Contact: Immediately flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for at least 15 minutes, occasionally lifting the upper and lower lids. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.

Skin Contact: Wash skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. If effects occur, consult a physician, preferably a dermatologist.

Inhalation: Move person from exposure to fresh air immediately. If effects occur, consult a physician.

Ingestion: No emergency medical treatment necessary. If effects occur, consult a physician.

Notes to Physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

Extinguishing Media: Use water, chemical foam, dry chemical fire extinguishers or carbon dioxide fire extinguishers.

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires. Dust explosion hazard may result from forceful application of fire extinguishing agents.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Unusual Fire and Explosion Hazards: Do not permit dust to accumulate. When suspended in air dust can pose an explosion hazard. Minimize ignition sources. If dust layers are exposed to elevated temperatures, spontaneous combustion may occur. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge.

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide, Carbon dioxide, Nitrogen oxides and so on.

6. Accidental Release Measures

Steps to be taken if Material is Released or Spilled: Sweep up. Use care to minimize generation of airborne dust. Do not use water for clean up. Then collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

Personal Precautions: Material becomes slippery when wet. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

7. Handling and Storage

Handling

Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin and clothing. Avoid ingestion and inhalation. Keep container closed when not in use. Keep the formation and deposition of dust to a minimum.

General Handling: Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Electrically ground and bond all equipment. Good housekeeping and controlling of

dusts are necessary for safe handling of product. See Section 8, Exposure Controls and Personal Protection.

Storage

Store in a dry place. See Section 10 for more specific information.

Storage temperature: 5 - 35 °C.

8. Exposure Controls / Personal Protection

Exposure Limits

Component	Value
Hydroxypropyl methylcellulose	10 mg/m ³

Personal Protection

Eye/Face Protection: Use safety glasses. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

Skin Protection: No precautions other than clean body-covering clothing should be needed.

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Particulate filter.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls Ventilation: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

9. Physical and Chemical Properties

Physical State: Powder

Color: White to very faintly off-white

Odor: Mild

Flash Point-Closed Cup: No test data available

Flammable Limits In Air Lower: No test data available Upper:
No test data available

Autoignition Temperature: No test data available

Vapor Pressure: Not applicable

Boiling Point (760 mmHg): Not applicable.

Vapor Density (air = 1): Not applicable

Specific Gravity (H₂O = 1): No test data available

Freezing Point: 0°C

Melting Point: No test data available

Solubility in Water (by weight): soluble in water

Ignition temperature: 380°C.

pH: Not applicable

10. Stability and Reactivity

Stability/Instability: Stable under recommended storage conditions. See Storage, Section 7.

Conditions to Avoid: Avoid temperatures above 130°C, Exposure to elevated temperatures can cause product to decompose. Avoid static discharge.

Incompatible Materials: Avoid contact with oxidizing materials. Avoid contact with: Strong acids. Strong bases.

Hazardous Polymerization: Will not occur.

Thermal Decomposition: Decomposition products depend upon temperature, air supply and the presence of other materials.

11. Toxicological Information

Acute Toxicity Ingestion: Single dose oral LD50 has not been determined. For similar material(s): LD50, Rat > 10,000 mg/kg

Skin Absorption: The dermal LD50 has not been determined.

Repeated Dose Toxicity: Repeated ingestion of similar cellulose by humans has not resulted in known significant adverse effects.

Chronic Toxicity and Carcinogenicity: Similar cellulose did not cause cancer in long-term animal studies.

Developmental Toxicity: Similar cellulose did not cause birth defects or other toxic effects to the fetus in laboratory animal studies.

Reproductive Toxicity: In animal studies, a similar cellulose has been shown not to interfere with reproduction.

Genetic Toxicology: For the major component(s): Similar cellulose were negative in both in vitro and animal genetic toxicity studies.

12. Ecological Information

CHEMICAL FATE Movement & Partitioning

No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).

Persistence and Degradability

No appreciable biodegradation is expected.

ECOTOXICITY

Not expected to be acutely toxic to aquatic organisms.

13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. HUIGUANG HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler. Reclaimer. Incinerator or other thermal destruction device. Landfill. As a service to its customers, HUIGUANG can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone HUIGUANG's Customer Information Group at +86-021-57448208 or +86-021-57448209(China) for further details.

14. Transport Information

IMDG

NOT REGULATED

ICAO/IATA

NOT REGULATED

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. Regulatory Information

US FEDERAL

TSCA

CAS#9004-65-3 is listed on the TSCA inventory.

Health & Safety Reporting List:

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules:

None of the chemicals in this product are under a Chemical Test Rule.
Section 12b: None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule:
None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302(RQ): None of the chemicals in this material have a RQ.
Section 302(TPQ): None of the chemicals in this material have a TPQ.
Section 313: No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depleters.
This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

Hydroxypropyl methylcellulose is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level: None of the chemicals in the product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols: Not available.
Risk Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS#9004-65-3:1

CANADA

CAS#9004-65-3 is listed on Canada's DSL/NDSL List.
CAS#9004-65-3 is not listed on Canada's Ingredient Disclosure List.

16. Other Information

Additional information on this product may be obtained by visiting our web page at www.shhuiguang.com.