SAFETY DATA SHEET

Version 1.0

Revision Date 01.08.2017

SECTION 1: Identification of the substance/mixture and of the Company/ undertaking

Product identifier

Chemical name: Hydroxypropyl methyl cellulose
Trade name: HPMC 30D,30DD,55D

Details of the supplier of the safety data sheet

Maha Chemicals (Asia) Pte Ltd
51 Tuas West Drive
Singapore 638415

Emergency telephone number

+65 68631808

SECTION 2: Hazards identification

Emergency Overview

OSHA Hazard Communication Standard

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

Hazards of product: CAUTION! May form explosive dust-air mixture.

Slipping hazard.

Avoid temperatures above 130°C.

Potential Health Effects:

Use appropriate PPE to prevent direct contact with the skin or eyes.

Eye Contact: Solid or dust may cause irritation or corneal injury.

Skin Contact: No irritating to skin.

Skin Absorption: No adverse effect

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

Ingestion: Very low toxicity if swallowed. Harmful effect is not anticipated from swallowing small amount.

SECTION 3: Composition/Information on Ingredients

Chemical name	CAS NO.	Content,% (By Weight)
Hydroxypropyl methyl cellulose	9004-65-3	90-99%

SECTION 4: First aid measure

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.

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.

SECTION 5 : Fire fighting measure

Extinguishing Media: Use water, chemical foam, dry chemical 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.

SECTION 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.

SECTION 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.

SECTION 8: Exposure controls/personal protection

Exposure Limits

Component	Value
Hydroxypropyl methyl cellulose	10 mg/m3

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.

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.

SECTION 9: Physical and chemical properties

Physical State	Powder
Colour	White or off white
Odour	Odourless
Flash point-closed Cup	No test data available
Flammable Limits In Air Lower	No test data available
Upper	No test data available
Auto ignition temperature	No test data available
Vapor pressure	Not applicable
Boiling Point(760 mmHg)	Not applicable
Vapor Density(air=1)	Not applicable
Specific Gravity(H_2O=1)	No test data available
Freezing point	Not applicable
Melting point	No test data available
Solubility in water(by weight)	It swells in 90° C hot water, and dissolves into colloidal solution in cold water.
pH	4~9(at 2% water solution)

SECTION 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 on temperature, air supply and the presence of other materials.

SECTION 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 cellulosic material by humans has not resulted in known significant adverse effects.

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

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

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

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

SECTION 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.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: - IMDG: - IATA-DGR: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATADGR: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA-DGR: -

Packaging group

ADR/RID: - IMDG: - IATA-DGR: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant

Special precautions for user

No data available

SECTION 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 depletors. This material does not contain any Class 2 Ozone depletors.

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.

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SECTION 16: Other information

Further information
SDS Prepared by:
Maha Chemicals (Asia) Pte Ltd
Prepared on: 1st, Aug, 2017

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