



MATERIAL SAFETY DATA SHEET

Section 1 Product and Company Identification

Product Name: Hydroxypropyl Methyl Cellulose

Company: Shanghai Runkey Biotech Co., Ltd

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Section 2 Composition/information on ingredients

Description: Mixture of substances listed below with additions.

Components Number:	CAS Number	Approximate (%) by Wt.
Hydroxypropyl Methyl Cellulose	9004-65-3	96%
Water	7732-18-5	3%
Other	-----	1%

Section 3 Hazards identification

Potential Acute Health Effects:

Primary Entry Routes: Swallowed, Inhalation, Skin, and eye contact

Inhalation: Negligible at short term exposure to low levels, long term inhaled high concentrations of volatile odor or dust can be irritating to the upper respiratory tract.

Eyes: May cause slight eye irritation inflammation. Direct contact should be avoided to prevent physical damage.

Skin: No known acute effects of this product resulting from skin contact, but it will irritate the damaged skin and cause inflammation, in light of good industrial hygiene, exposure to any chemical should be kept to a minimum.

Swallowed: The product is expected to be harmful if ingested. Ingestion will irritate the mouth and digestive tract, after ingestion will have vomiting, fever, abdominal pain, loss of appetite.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4 First aid measures

Generally not hazardous in normal handling, however good laboratory practices should always be used. Avoid long term exposure to skin or by inhalation.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Eye: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid. If irritation develops or persists.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Medical conditions aggravated by exposure: No medical conditions are known to be aggravated by these products.

Notes to Physician: None

Section 5 Fire fighting measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

Flammable class: 0

Suitable extinguishing media: Water, CO₂, Dry Chemicals, Foam-Fog

Fire/Explosion Hazards: Negligible fire hazard when exposed to heat or flame.

Fire fighting procedure: Wear self contained breathing apparatus meeting NIOSH standards.

Other information: Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to products of combustion exists.

Section 6 Accidental release measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow evacuating through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7 Handling and storage

The regulations relating to storage remises apply to workshop where the product is handled:

Handling: removal of mobile products need to wear protective gloves when products for the brittle materials, handled with care when handling. Apply good manufacturing practice & industrial hygiene practices. Observe good personal hygiene, and do not eat, drink or smoke whilst handling. Wear protective goggles and gloves when handling material. Clean cloths, must be worn. Observe all warning and precautions listed for the product.

Storage: store in a cool & dry area away from heat sources & protected from light. Stored in relatively stable areas., to avoid collision occurred on a hard object avoid dust formation and

control ignition sources. Keep air contact to a minimum.

Further information about storage condition: None.

Section 8 Exposure controls/personal protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Protective Gloves: Protective gloves.

Eye protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN149. Use a NIOSH/MSHA or European Standard EN149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Healthmeasures: Local exhaust ventilations may be necessary for some operation.

PEL(OSHA): None Established

TLV(ACGIH): None Established

Section 9 Physical and chemical properties

General Information	
Form:	Powder
Color:	White
Odor:	Odorless
Change in condition	
Melting point/Melting range:	Not available
Boiling point/Boiling range:	Not available
Flash point:	Not available
Danger of explosion:	Product does not present an explosion hazard
Density:	
Relative density:	1.4 (Water=1)
Vapor density:	Not available
Evaporation rate:	Not available
Solubility in/Miscibility with Water	Soluble
PH-Value	5.0~7.5

Section 10 Stability and reactivity

Chemical stability: Stable under normal temperatures and pressures.

Solubility: Can be swollen in water, forming a transparent viscous milky white colloidal solution.

Insoluble in ethanol.

Materials with which substance is incompatible: incompatible with strong oxidizing agents.

Decomposition products: Not available.

Hazardous polymerizations: Will not occur.

Section 11 Toxicological information

Toxicity to Animals:

LD/LC50 values relevant for classification:	
9004-65-3 Hydroxypropyl methyl cellulose intraperitoneal	LD50: 5200mg/kg (rat)

Other Toxic Effects on Humans: Not available.

Special Remarks on Toxicity to Animals: Not available.

Special remarks on Chronic Effects on Humans: Not available

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12 Ecological information

Ecotoxicity: Not available

Products of Biodegradation: None Hazardous short term degradation products are not likely.

Water Danger/Protection: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Section 13 Disposal considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Waste Disposal Methods: Disposal must be done as territory and/or local government regulations. Waste management information will help to receive the best results.

Disposal of packaging: Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

Section 14 transport information

DOT Classification: Not a DOT controlled material (United States)

UN Number: Not available.

Packing Group: Not available

Special provisions for Transport: Not applicable

TDG Classification: Not controlled under TDG(Canada)

ADR/RID Classification: Not controlled under ADR (Europe)

IMO/IMDG Classification: Not Controlled under IMDG.

ICAO/IATAClassification: Not controlled under IATA.

Section 15 Regulatory information



US FEDERAL

TSCA: Not listed on the TSCA inventory. It is for research and development use only.

Health& Safety reporting list: None of the chemicals are on the Health & Safety reporting list.

CERCLAHazardous Substances and corresponding RQs: None of the chemicals in this material have an RQ.

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.

TSCASignificant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

SARASection 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

Section 313: No chemicals are reportable under Section 313.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling inAccordance with EC Directive

Risk Phrases:

22 Harmful if swallowed

36/37/38 Irritating to eyes, respiratory system and skin.

Safety Pharses:

2 Keep out of the reach of children.

24/25 Avoid contact with skin and eyes.

46 If swallowed, seek medical advice immediately and show this container or label.

Section 16 Other information

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handing, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may be applicable.