

MATERIAL SAFETY DATA SHEET

1 PRODUCT IDENTIFICATION

PRODUCT NAME:HYDROXYPROPYL METHYLCELLULOSE HS code: 39129000 CAS NUMBER: 9004-65-3

2 COMPOSITION / INFORMATION ON INGREDIENTS

This product is considered hazardous according to the OSHA Hazard Communication Standard 29CFR1910.1200 due to flammable dust potential.

If this product is used in a manner that could generate particulates (dust), refer to MSDS Section 7, Handling and Storage, and Section 8, Recommended Exposure Limits and Personal Protective Equipment.

3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW WARNING!

Static charges generated by emptying package in or near flammable vapors may cause flash fire. May form flammable dust-air mixtures. May cause eye irritation by mechanical abrasion. May cause skin irritation by mechanical abrasion. Inhalation of dust may cause respiratory tract irritation. Surfaces subject to spills may become slippery.

Refer to Section 5 for Hazardous Combustion Products, and Section 10 for Hazardous Decomposition/Hazardous Polymerization Products.

4 FIRST AID MEASURES

SKIN Wash with soap a

Wash with soap and water. Get medical attention if irritation develops or persists.

EYE

Hold eyelids apart.Immediately flush Remove contact lenses.eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation persists.



INHALATION
Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops.
INGESTION
No adverse health effects are expected from accidental ingestion of small amounts of this product. For ingestion of large amounts: If conscious, drink one to two glasses of water (8-16 oz.). Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Water spray, dry chemical, foam, carbon dioxide or clean extinguishing agents may be used on fires involving this product.

FIRE FIGHTING PROCEDURES

Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.

CONDITIONS TO AVOID None known.

HAZARDOUS COMBUSTION PRODUCTS

Combustion products include: carbon monoxide , carbon dioxide and smoke

6 ACCIDENTAL RELEASE MEASURES

If product is not contaminated, scoop into clean containers for use. If product is contaminated, scoop into containers, and dispose appropriately. Avoid wetting spills, as surfaces can become very slippery. Apply absorbent to wet spills and sweep up for disposal. In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.

7 HANDLING & STORAGE

GENERAL MEASURES

Ground all equipment.

Blanket vessel with inert gas when emptying bags where flammable vapors may be present. Ground operator and pour material slowly into conductive, grounded chute.

For large bags (1000 lbs or greater) a ground cable MUST be attached to the bag ground connection.



Store in a cool, dry, well-ventilated area at approximately 68° F (20° C).

Keep container closed when not in use.

MATERIALS OR CONDITIONS TO AVOID

Avoid conditions that generate dust; product may form flammable dust-air mixtures.

Avoid emptying package in or near flammable vapors; static charges may cause flash fire.

Keep away from heat, flame, sparks and other ignition sources.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

WORK PRACTICES & ENGINEERING CONTROLS

Eyewash fountains and safety showers should be easily accessible.

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Discharge from the ventilation system should comply with applicable air pollution control regulations. Clean up spills immediately.

Keep floors clean and dry.

GENERAL HYGIENIC PRACTICES

Avoid contact with eyes, skin, and clothing.

Avoid breathing dust.

Avoid contamination of food, beverages, or smoking materials.

Wash thoroughly after handling, and before eating, drinking or smoking.

Remove contaminated clothing promptly and clean thoroughly before reuse.

RECOMMENDED EXPOSURE LIMITS

PARTICULATES (dust): If used under conditions that generate particulates (dust), the ACGIH TLV-TWA of 3 mg/m3 respirable

fraction (10 mg/m3 total) should be observed.

PERSONAL PROTECTIVE EQUIPMENT

Safety glasses

Impervious gloves

Appropriate protective clothing

Appropriate respiratory protection is required when exposure to airborne contaminants may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134) and manufacturers recommendations.



PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE Eliminate ignition sources and prevent build-up of static electrical charges. Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs. Keep area clean. Product will burn.

9 PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE:	powder
COLOR:	white to off-white
ODOR:	odorless

Specific Gravity	0.25
Percent Volatile	negligible at 20 C
Solubility In Water	limited by viscosity
pH Value	5-7 (1% solution)

10 STABILITY & REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS None known.

HAZARDOUS POLYMERIZATION Not anticipated under normal or recommended handling and storage conditions.

GENERAL STABILITY CONSIDERATIONS Stable under recommended handling and storage conditions.

INCOMPATIBLE MATERIALS Incompatible with: acids , oxidizing agents , alkalies strong sunlight or ultraviolet light and free-radicals

11 TOXICOLOGICAL INFORMATION

CARCINOGENICITY INFORMATION Not listed as a carcinogen by NTP. Notregulated as a carcinogen by OSHA. Not evaluated by IARC.

REPORTED HUMAN EFFECTS

Laxative and constipating effects from ingestion of 1 gram or more. No skin irritation reported with application of 100% of product. Due to the physical nature of this material, may cause eye, skin and respiratory irritation.



REPORTED ANIMAL EFFECTS

Non-irritating to slightly irritating to rabbit eyes at 1-2% aqueous solutions. Non-irritating to slightly irritating to rabbit skin at 2% aqueous solution. No toxic effects reported in 90-day or lifetime rat feeding studies with 5% dietary concentrations; no toxic effects in 90-day dog feeding studies at 10% dietary concentrations. No reproductive effects in rats, mice or hamsters; no teratogenic effects in mice or hamsters.

MUTAGENICITY/GENOTOXICITY INFORMATION PRODUCT/SIMILAR PRODUCT - Not mutagenic in IN VITRO and IN VIVO studies.

12 ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION No ecological studies have been carried out on this product.

13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Landfilling in a permitted solid or hazardous waste facility is recommended. Handling, transportation, and disposal of material should be conducted in a manner to prevent a nuisance dust hazard. Fully containerize the material before handling, and protect from exposure to the outdoors. Ensure there are no restrictions on disposing of bulk or semi-bulk quantities of waste material. Disposal should be in accordance with all Federal, State and local regulations.

14 TRANSPORT INFORMATION

GENERAL

This product is not subject to DOT, ICAO, IMDG or ADR Regulations.

This product is safe to be transported by airplane.

For specific information regarding transportation of this product, please contact the **XI AN FORTA CHEM CO.,LTD** at +86-29-86109849

15 REGULATORY INFORMATION

CHEMICAL INVENTORIES U.S. TSCA: The components of this product are included on the TSCA Inventory. Canadian CEPA : Included on DSL Inventory. Korean KECL : Included on KECL Inventory.



SARA TITLE III - SECTIONS 302/304 This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.

SARA TITLE III - SECTION 311 AND 312 NHH: Not a health hazard HC-3: Fire hazard

SARA TITLE III - SECTION 313

This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act and 40CFR372.

CERCLA

This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.

RCRA

This product is not a hazardous waste as listed in 40CFR261.33. It does not exhibit any of the hazardous characteristics listed in 40CFR261, Subpart C.

16 OTHER INFORMATION

HMIS RATINGS:

Health	1 Slight Hazard
Fire	1 Slight Hazard
Reactivity	0 Minimal Hazard

LIST OF ACRONYMS

ACGIH: American Conferences of Governmental Industrial Hygienists

AIHA WEEL: American Industrial Hygienists Association - Workplace Environmental Exposure Level CASRN: Chemical Abstracts Service Registry Number CERCLA: Comprehensive Emergency Response, Compensation and Liability Act

HMIS: Hazardous Materials Identification System IARC: International Agency for Research on Cancer NTP: National Toxicology Program OSHA: Occupational Safety and Health Administration PEL: OSHA Permissible Exposure Limit RCRA: Resource Conservation and Recovery Act RQ: Reportable Quantity



SARA: Superfund Amendment Reauthorization Act STEL: Short-Term Exposure Limit TLV: Threshold Limit Values (registered trademark of ACGIH) TPQ: Threshold Planning Quantity TSCA: Toxic Substance Control Act TWA: Time Weighted Average

DISCLAIMER

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.