

MATERIAL SAFETY DATA SHEET

XD™ Hydroxypropyl Guar Gum

MSDS Ref. No.: XDHG-HGG-201101

Date Approved: 03/24/2011

Revision No.: 1

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the Canada's Workplace Hazardous Materials Information System (WHMIS) and, the EC Directive, 2001/58/EC.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	XD™ Hydroxypropyl Guar Gum
CHEMICAL FAMILY:	Polysaccharides
SYNONYMS:	Modified guar gum, hydroxypropyl guar gum powder
GENERAL USE:	Industrial application

MANUFACTURER

Dongying Xinde Chemicals Co., Ltd.

Xiliuqiao Development Zone
Dongying City, Shandong Province
China -257338

Tel: +0086-546-6412998

Fax: +0086-546-6413777
(General Information)

EMERGENCY TELEPHONE NUMBERS

+47 / 32 30 3500 (FMC Plant - Drammen, Norway)

(303) 595-9048 (Medical - U.S. - Call Collect)

For leak, fire, spill, or accident emergencies, call: (800)
424-9300 (CHEMTREC - U.S.A. & Canada) (703) 527-
3887 (CHEMTREC - All Other Countries)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

- Yellowish to white, almost odorless, powder.
- Powder becomes slippery when wet.
- Accumulation of overhead settled dust may form explosive concentrations in air when disturbed and dispersed.

POTENTIAL HEALTH EFFECTS: No significant health hazard expected.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt. %	EC No.	EC Class
Hydroxypropyl Guar Gum	39421-75-5			Not classified

4. FIRST AID MEASURES

EYES: Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

SKIN: Wash with plenty of soap and water.

INGESTION: Drink plenty of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.

NOTES TO MEDICAL DOCTOR: This product has low oral toxicity. It is minimally irritating to the eyes and non-irritating to the skin. Treatment is symptomatic and supportive.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water

FIRE / EXPLOSION HAZARDS: The accumulation of excessive dust on overhead structures may produce explosive concentrations when disturbed and dispersed.

FIRE FIGHTING PROCEDURES: For fires involving this material, do not enter any enclosed or confined fire space without wearing full protective clothing and self-contained breathing apparatus (SCBA) approved for firefighting. This is necessary to protect against the hazards of heat, products of combustion and oxygen deficiency. Do not breathe smoke, gases or vapors generated.

FLAMMABLE LIMITS: Not applicable

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Powder becomes slippery when wet. Maintain good housekeeping practices to minimize accumulation of settled dust, especially on overhead surfaces. Sweep up the spilled material and dispose of in accordance with the waste disposal method outlined in Section 13, "Disposal Considerations".

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Use local exhaust or general dilution ventilation to control exposure to dust. Always use safe lifting techniques when manually moving containers, especially when handling containers weighing more than 25kg. To protect the quality, store in a tight container in a dry place. Avoid exposure to excessive heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Whenever airborne dust concentrations are high, appropriate protective eyewear, such as mono-goggles, should be worn to prevent eye contact.

RESPIRATORY: Whenever dust in the worker's breathing zone cannot be controlled with ventilation or other engineering means, workers should wear respirators or dust masks approved by NIOSH/MSHA, EU CEN or comparable certification organization to protect them against airborne dust.

PROTECTIVE CLOTHING: No special clothing is required.

GLOVES: No special gloves are required.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	Almost odorless
APPEARANCE:	Yellowish to white powder
AUTOIGNITION TEMPERATURE:	Not applicable
BOILING POINT:	Not applicable
COEFFICIENT OF OIL / WATER:	(Octanol/Water) Not available
EVAPORATION RATE:	(Butyl acetate = 1) Not applicable
FLASH POINT:	Not applicable
MELTING POINT:	Not applicable
OXIDIZING PROPERTIES:	Not applicable
PERCENT VOLATILE:	Not available
pH:	6 - 8 (1% solution)
SOLUBILITY IN WATER:	(% by weight) 10% maximum
SPECIFIC GRAVITY:	(H ₂ O = 1) Approximately 1 g/cc
VAPOR DENSITY:	(Air = 1) Not applicable
VAPOR PRESSURE:	Not applicable

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	None known
STABILITY:	Stable
HAZARDOUS DECOMPOSITION PRODUCTS:	None known.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Minimally irritating (rabbit)

SKIN EFFECTS: Non-irritating (rabbit)

DERMAL LD₅₀: No data available for the product.

ORAL LD₅₀: No data available for the product

INHALATION LC₅₀: No data available for the product

SENSITIZATION: No data available for the product.

ACUTE EFFECTS FROM OVEREXPOSURE: This product has low oral toxicity. It is irritating to the eyes and non-irritating to the skin. No significant acute toxicological effects expected.

CHRONIC EFFECTS FROM OVEREXPOSURE: This product has tested negative in rat and mice carcinogenicity studies, and in reproductive and teratogenicity studies. Mixed results have been obtained in mutagenicity studies. No other significant chronic toxicological effects expected.

CARCINOGENICITY:

NTP:	Not listed
IARC:	Not listed
OSHA:	Not listed
OTHER:	Not Listed (ACGIH)

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA:

No data available for the product; however, it is not expected to have significant environmental effects.

ECOTOXICOLOGICAL INFORMATION:

No data available for the product; however, no significant effects on aquatic organisms are expected.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: No special disposal methods are suggested. It is the user's responsibility to comply with all applicable local, state, and federal laws, rules, regulations and standards.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

MARINE POLLUTANT:	None
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ADDITIONAL INFORMATION:

Not applicable

INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)

ADDITIONAL INFORMATION:

Not applicable

ADR - EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD

ADDITIONAL INFORMATION:

Not applicable

INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) / INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

ADDITIONAL INFORMATION:

Not applicable

OTHER INFORMATION:

Canada (TDG): Not applicable

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355, APPENDIX A):

Not applicable

SECTION 311 HAZARD CATEGORIES (40 CFR 370):

None

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM):

Not a controlled product under the Canadian Workplace Hazardous Materials Information System (WHMIS).

Domestic Substance List: Listed

16. OTHER INFORMATION

NFPA

Health	0
Flammability	1
Reactivity	0
Special	None

No special requirements

NFPA = National Fire Protection Association

Degree of Hazard Code:

4 = Extreme

3 = High

2 = Moderate

1 = Slight

0 = Insignificant

REVISION SUMMARY:

New MSDS