



MATERIAL SAFETY DATA SHEET

Guardian
22 March 2010

1. Product and Company Information

Product Name: GUARDIAN

Manufacturer/Supplier: Rantec Corporation
Address: 17 Kukuchka Lane
Ranchester, WY 82839

Phone Number: (307) 655-9565
Fax Number: (307) 655-9528
e-mail: rantec@ranteccorp.com

2. Composition / Information on Ingredients

Ingredient	CAS Number	% Weight	Exposure Limits
1. Guar Gum	9000-30-0	90 to 99	5 mg/m ³ (respirable) PEL-TWA 3 mg/m ³ (respirable) TLV-TWA 10 mg/m ³ (inhalable dust) TLV-TWA

OSHA Hazardous Material: Yes
OSHA Hazard Categories: Irritant, Sensitizer, Combustible Dust

2. Proprietary Dispersants 1 to 3 5 mg/m³ PEL-TWA-TLV

3. Hazards Identification

Emergency Overview:

Concentrations of dust suspended in the air present a fire and explosion hazard. Inhalation of dust may cause respiratory irritation and possible lung injury with symptoms of shortness of breath and reduced lung function. Guardian is very slippery when wet.

Acute Health Effects:

Eye Contact: Contact may cause irritation based on studies with laboratory animals.

Skin Contact: Contact may cause dryness.

Inhalation: Inhalation of dust may cause irritation of the nose, throat and respiratory passages. Symptoms include coughing, sore throat, nasal congestion, sneezing wheezing and shortness of breath. May cause life-threatening allergic reaction in susceptible individuals.

Ingestion: DO NOT INGEST. While this product is not toxic by ingestion, swallowing small amounts could cause complete blockage of the mouth, pharynx, trachea, esophagus and/or gastrointestinal system which may cause choking, suffocation and/or other life threatening medical conditions. Get medical attention immediately.



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3. Hazards Identification - continued

Chronic Health Effects: Overexposure to any nuisance dust may cause lung injury. Symptoms include cough, shortness of breath and reduced pulmonary function.

Carcinogenicity: None of the components of this product are listed as carcinogens or suspected carcinogens by OSHA, IARC or NTP.

Medical Conditions Aggravated by Exposure: Persons with pre-existing skin and respiratory disorders may be at an increased risk from exposure.

4. First Aid Measures

Eye: Flush immediately with large amounts of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. If irritation persists get medical attention.

Skin: First aid is not normally needed. Wash exposed skin with soap and water after use. If irritation or rash develops get medical attention. Use skin lotion if dryness occurs.

Inhalation: If symptoms of irritation or allergy develop, remove person from source of exposure to fresh air. If symptoms persist get medical attention.

Ingestion: Swallowing even small amounts may have serious, life-threatening effects. Get immediate medical attention.

5. Firefighting Measures

Flashpoint: Not Applicable

Lower Explosion Limit: 0.040 oz/cf

Autoignition Temperature: Not Determined

Upper Explosion Limit: Not determined

Extinguishing Media: Use water fog, dry chemical, carbon dioxide or foam. Do not use streams of water as dust dispersed by water streams can explode.

Special Fire Fighting Procedures: Wear positive pressure, self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards: Powder has the potential to form explosive mixtures with air. Avoid creating dust. Keep away from heat, sparks and open flames. As with all dusty materials, use preventative measures including spark proof motors and ventilation to control dust.

Combustion Products: Oxides of carbon and nitrogen.

6: Accidental Release Measures

Wear appropriate protective clothing and equipment. Caution: Guardian is **very slippery when wet**. Sweep up or vacuum, avoiding the creation of airborne dust, and collect into a suitable container for disposal. Keep spilled product away from flammable and combustible materials. Wash residual traces with hot water after sweep-up is complete. Test area for residual slippery conditions.



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7. Handling and Storage

Handling: Avoid generating and breathing dust. Avoid eye contact. Use with adequate local exhaust ventilation and dust collection to maintain the concentration of airborne dust below the exposure limits. If clothing becomes contaminated, remove and launder before re-use. Wash thoroughly after handling.

Storage: Keep product dry. Store in a cool, dry area. Keep containers closed to avoid moisture absorption.

8. Exposure Controls / Personal Protection

Engineering Controls: Use explosion proof local exhaust ventilation as needed to maintain exposure concentrations below the recommended limits.

Personal Protective Equipment (PPE): Eye Protection: Safety glasses or goggles recommended.

8. Exposure Controls / Personal Protection (continued)

Skin Protection: Rubber, plastic or leather gloves recommended.

Respiratory Protection: If the concentrations exceed the Threshold Value Limit (TLV), a NIOSH approved dust respirator, supplied air respirator or self-contained breathing apparatus is recommended. Select appropriate respiratory protection for respirable particulates based on consideration of the airborne workplace concentrations and duration of exposure. Select and use respirators in accordance with 29 CFR 1910.134

<http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html#page1>, ANSI Z88.2 <http://www.ansi.org/>, the NIOSH Respirator Decision Logic and good industrial hygiene practice. <http://www.cdc.gov/niosh/homepage.html>.

9. Physical and Chemical Properties

Boiling Point: Not Applicable

Melting Point: Decomposes

Vapor Pressure: Not Applicable

Vapor Density (Air=1): Not Applicable

% Solubility in Water: Complete

Odor/Appearance: Creamy white powder with a bean-like odor.

Specific Gravity: Not applicable

% Volatile: Not applicable

Evaporation Rate (Butyl Acetate=1): Not Applicable

pH: 5-8

Octanol/Water Partition Coefficient: Not Applicable

10. Stability and Reactivity

Stability: Material is stable.

Incompatibility: Avoid high temperatures, sparks, open flames and moisture. Avoid contact with strong oxidizing agents.

Hazardous Reactions-Decomposition Products: Combustion may produce carbon dioxide, carbon monoxide and oxides of nitrogen.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Guar Gum: Oral rat LD50: 9.4g/kg

Dispersant: Oral rat LD50: 1700 mg/kg

Guar gum is a natural food additive, although direct use in powder or pill form is banned by the FDA due to the risk of respiratory or gastrointestinal blockage.



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12. Ecological Information

No ecotoxicity data is available at this time. This product is not expected to present an environmental hazard.

13. Disposal Considerations

Dispose in compliance with all applicable federal, state and local regulations. Do not dump down sewers or drains as this may cause blockage.

14. Transport Information

U.S. Department of Transportation (DOT)

Proper Shipping Name: Not Regulated

Hazard Class: N/A

UN/NA Code: N/A

Packing Group: N/A

Labels Required: N/A

14. Transport Information (continued)

IMDG CODE

Proper Shipping Name: NOT REGULATED

Hazard Class: N/A

UN/NA Code: N/A

Packaging Group: N/A

Labels Required: N/A

15. Regulatory Information

Regulatory Information

The United States Food and Drug Administration, the European Economic Community and the World Health Organization accept guar gum as a food additive/ingredient providing it meets specified purity standards and dosage limitations. Maximum usage levels permitted may vary from country to country. Guar gum has been affirmed as GRAS by the United States Food & Drug Administration under title 21, CFR, part 184.1339; it is listed as item G.3 of Table IV, Division 16, of the Canadian Food and Drug Regulations and is referenced E-412 under the EEC Council Directives. Other proprietary polymers are also commonly used in food.

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA) Reportable Quantity:

This product is not subject to CERCLA reporting requirements as it is sold.

OSHA Hazard Categories: Irritant, Sensitizer, Combustible Dust

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 Hazard Categories: Fire Hazard, Acute Health

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313: None

California Proposition 65: This product is not known to contain chemical regulated under California Prop. 65.



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Toxic Substances Control Act (TSCA): All components of this product are listed on the TSCA inventory or exempt from notification requirements.

Canadian Environmental Protection Act: All of the components of this product are listed on the Canadian Domestic Substances List or exempt from notification requirements.

European Inventory of Existing Commercial Chemical Substances (EINECS): All of the components of this product are listed on the EINECS Inventory or exempt from notification requirements.

Japan MITI: All of the components of this product are existing chemical substances as defined in the Chemical Substance Control Law.

Australian Inventory of Chemical Substances: All of the components of this product are listed on the AICS Inventory or exempt from notification requirements.

Canadian WHMIS Classification: Class B, Division 4 (Flammable Solid). Class D, Division 2B (Toxic material causing other chronic effects)

16. Other Information

NFPA Hazard Ratings:

Health: 1 Flammability: 1 Reactivity: 0

HMIS Hazard Ratings:

Health: 1 Flammability: 1 Reactivity: 0

Abbreviations:

ACGIH	American Conference Of Governmental Industrial Hygienists
ANSI	American National Standards Institute
CAS	Chemical Abstracts Service
CDC	Centers for Disease Control and Prevention
CFR	The Code of Federal Regulations
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
EPA	United States Environmental Protection Agency
FDA	United States Food and Drug Administration
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
IMDG	International Maritime Dangerous Goods
LD50	Lethal Dose expected to cause death in 50% of the test animals
MITI	Ministry of International Trade and Industry
NFPA	National Fire Protection Association
NIOSH	CDC - National Institute for Occupational Safety
NTP	National Toxicological Program
OSHA	U.S. Department of Labor, Occupational safety and health administration
PEL	OSHA - permissible exposure limit
TLV	ACGIH - threshold limit value
TWA	Time weighted average
UN/NA	United Nations / North America
US	United States



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WHMIS

Workplace Hazardous Materials Information System

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