



MATERIAL SAFETY DATA SHEET

HF5000
02 April 2012

1. Product and Company Information

Product Name: HF5000

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. Hazards Identification

OSHA Hazardous Material: No

OSHA Hazard Categories:

1. Carcinogen – No
2. Corrosive – No
3. Highly Toxic – No
4. Irritant – No
5. Sensitizer – Yes
6. Toxic – No
7. Target Organ Effect Lung and Cutaneous -- Yes

Emergency Overview:

WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR (DURING PROCESSING) May cause eye irritation. Inhalation of dust may cause mucous membrane irritation and upper respiratory tract irritation with possible lung injury. May cause allergic respiratory reaction (asthma) in some individuals.

This product is very slippery when wet.

Acute Health Effects:

Eye Contact: Contact may produce mild eye irritation

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 allergic reaction in individuals who are allergic to grain dust.

Ingestion: Not known to cause adverse effects

Chronic (long-term exposure) Health Effects:

- **Inhalation:** Overexposure to any nuisance dust may cause lung injury. Symptoms include cough, shortness of breath, difficulty breathing and reduced pulmonary function. Repeated exposure to this product may cause allergic sensitization in some individuals.
- **Carcinogenicity:** None
- **Medical Conditions Aggravated by Exposure:** Persons with pre-existing skin and respiratory disorders may be at an increased risk from exposure.

Physical Hazards:

- **Slick Surfaces:** Powder or dust in combination with water on work platform, floor or stair, will result in a slippery surface.



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3. Composition / Information on Ingredients

Ingredient	CAS Number	Weight %
Proprietary Polymer Blend		100

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 plenty of water. If irritation or rash develops get medical attention.

Inhalation: Move to fresh air. If symptoms persist get medical attention.

Ingestion: Drink water as a precaution. Consult a physician if necessary.

5. Firefighting Measures

Flashpoint: Not Applicable

Auto-ignition Temperature: Not Determined

Lower Explosion Limit: No data available

Upper Explosion Limit: No data available

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. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

6: Accidental Release Measures

Wear appropriate protective clothing and equipment. Caution: **Very slippery when wet**. Do not flush with water. Sweep up or vacuum up and collect into a suitable container for disposal. Wash residual traces with hot water after sweep-up is complete. Test area for residual slippery conditions. Nonsparking tools should be used. Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

7. Handling and Storage

Handling: Keep moisture below 45%, when bags or super sacks are open. Avoid eye contact and breathing in dust. 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. Do not ingest. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Storage: Keep product dry. Store in a cool, dry area.

8. Exposure Controls / Personal Protection

Exposure Limits

Ingredient	Exposure Limits
Proprietary Polymer Blend	5 mg/m ³ (respirable), 15 mg/m ³ (Total) PEL-TWA,



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10 mg/m³ TLV-TWA

Engineering Controls: Use with adequate local exhaust ventilation to minimize exposures. Consider potential explosion hazards. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks. Consider potential explosion hazards.

Personal Protective Equipment (PPE):

- **Eye Protection:** In conditions where eye contact is possible, wear safety glasses or goggles.
- **Skin Protection:** Wear protective clothing if contact is likely. Wash thoroughly after handling.
- **Respiratory Protection:** None needed under normal use conditions. If the concentrations exceed the Threshold Value Limit (TLV), a NIOSH approved dust respirator may be used. 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>. To simplify selection of the appropriate respirator, OSHA has developed the Advisor Genius. Available online, the advisor genius allows a safety professional to input the conditions under which the respirator will be used and receive a recommendation of the type of respirator to use. The advisor also contains information about types of respirators and factors that affect respirator use. The online advisor contains a set of options as to the use of the respirator (firefighting, welding, escape purposes, confined areas) and then generates a report with the relevant OSHA standard indicated. The advisor is available at http://www.osha.gov/SLTC/etools/respiratory/respirator_selection.html.

9. Physical and Chemical Properties

Boiling Point: Not Applicable

Melting Point: No Data Available

Vapor Pressure: Not Applicable

Vapor Density (Air=1): Not Applicable

% Solubility in Water: No Data Available

Odor/Appearance: White to beige powder with slight odor

Specific Gravity: No Data Available

% Volatile: No Data available

Evaporation Rate (Butyl Acetate=1): Not Applicable

pH: No Data Available

Octanol/Water Partition Coefficient: No Data Available

10. Stability and Reactivity

Stability: Material is stable for 5 years

Incompatibility: Avoid contact with strong oxidizing agents.

Hazardous Reactions-Decomposition Products: Thermal decomposition may produce oxides of carbon

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Proprietary Polymer Blend: Oral rat LD50: 45,000 mg/kg. Eye irritation - Mild

12. Ecological Information

Proprietary Polymer Blend: LC50 rainbow trout 96 hr:: 420 mg/L

13. Disposal Considerations



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Dispose in compliance with all applicable federal, state and local regulations.

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

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

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

This product is not subject to CERCLA reporting requirements as it is sold. Many states have more stringent release reporting requirements. Report spills as required under federal, state and local regulations.

OSHA Hazard Categories: Target Organ Effects, Sensitizer

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

SARA Section 311/312 Hazard Categories: Acute Health

This product contains the following toxic chemical(s) subject to reporting requirements of SARA

Section 313: None

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity under the "Safe Drinking Water and Toxic Enforcement Act of 1986".

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

16. Other Information

NFPA Hazard Ratings:

Health: 1 Flammability: 1 Instability: 0

HMIS Hazard Ratings:

Health: 1* Flammability: 1 Physical Hazard: 0

Refer to NFPA 654, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*, for safe handling.

Abbreviations:



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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
WHMIS	Workplace Hazardous Materials Information System

NOTICE:

Information contained in the company's technical literature is believed to be accurate. It is a condition to any sale that buyer conduct an examination of the products under its own operating conditions within a reasonable time after the products have been delivered to buyer and determined to its own satisfaction that the products delivered hereunder are of acceptable quality and are suitable for buyer's contemplated use. The company makes no representation or warranty of any kind, express or implied, with respect to its products or to the use of its products by the buyer in combination with other substances, whether as to merchantability, fitness for a particular purpose, or any other matter. Statements concerning the possible use of the company's products are not intended as recommendations to use the company's products in the infringement of any patent.

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