

MATERIAL SAFETY DATA SHEET

Product Name: *Aspergillus flavus* AF36

Trade names/synonyms: None.
EPA Registration Number: 71693-1.
Primary Hazards: None known.

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Read attached pesticide label for this product.

SECTION 1: MATERIAL IDENTIFICATION

Cleaned 100% steam-sterilized whole-wheat seeds colonized by an atoxigenic (does not produce aflatoxins) strain of *Aspergillus flavus* called AF36. *Aspergillus flavus* AF36 is a strain of *Aspergillus flavus* that occurs naturally on the cotton crop. *Aspergillus flavus* AF36 reduces the quantity of aflatoxin contaminating the crop.

Common Name: *Aspergillus flavus* AF36
Chemical Name: Not applicable
Molecular Formula: Not applicable
CAS Number: Not applicable

OTHER INGREDIENTS: None

SECTION 2: PHYSICAL DATA

Physical Properties of this Product are Consistent with those of Whole-Grain Wheat

Boiling Point: Not applicable
Melting Point: Not applicable
Density: 45 lb/ft³
Solubility in Water: Not soluble in water.
Appearance: Whole grains of Wheat.
Color: Light greyish brown.
Odor: Steam-cooked wheat grains.

SECTION 3: FIRE AND EXPLOSION DATA

Flash Point: Not applicable.
Extinguishing Media: Class A Fire Extinguisher. Use extinguishing media appropriate for whole-wheat seed.
Special Fire Fighting Procedures: None.
Unusual Fire & Explosion Hazards: Product consists of cleaned, sterilized wheat seed that contains very low dust levels (grain dust LEL (Lower Explosion Limit) 55 g/m³).

SECTION 4: REACTIVITY

Stability: Stable (the same reactivity as whole-wheat seed).
Hazardous polymerization: Will not occur.
Incompatibility: None known.
Hazardous decomposition products: None known.
Conditions to avoid: None known.

SECTION 5: HEALTH HAZARDS

Primary Route of Entry: Oral, Inhalation, and Eye.
Exposure Limit: Not Established.
Corrosive: Not Corrosive.
Skin/Eye Irritation: May be irritating to skin and eyes for some individuals.
Inhalation: Product has a very low dust content. However, avoid breathing any dust associated with product. Dust may be irritating to respiratory tract for some individuals. The OSHA PEL (Permissible Exposure Limit) for grain dust is 10 mg/m³ (total dust) and the ACGIH TLV (Threshold Limit Value) is 4 mg/m³ (respirable dust).
Effects of Overexposure: If product comes in contact with eyes or skin, irritation may occur.
Toxicity: None known.
Acute Oral LD₅₀ (Rat): No toxicity detected. Not toxic at 5000 mg/kg
Carcinogenicity: None Known. Not listed in NTP and IARC.

Some strains of *Aspergillus flavus* are known to cause adventitious infections of compromised hosts. However, in animal (rat and quail) tests, strain AF36 of *Aspergillus flavus* was found to be not infective.

If this product is exposed to moisture and favorable temperatures, the fungus (*Aspergillus flavus* AF36) will grow on the wheat and produce spores. When the fungus produces spores, the wheat seed appears green, the color of the spores. Spores of the fungus, *Aspergillus flavus*, are known to be allergens.

SECTION 6: FIRST AID

The same as for handling wheat.

- If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.
- If on skin: Wash with soap and water. Get medical attention if irritation persists. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
- If inhaled: Inhalation toxicity has not been detected. If exposed, remove victim to fresh air. If not breathing, give artificial respiration. Get medical attention.
- If swallowed: Material was not toxic in animal tests. However, material should not be consumed. If swallowed, call a poison control center or physician. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

SECTION 7: SPILL LEAK AND DISPOSAL PROCEDURES

Steps to be taken in case material is released or spilled:

Wear suitable protective clothing such as long-sleeved shirt, pants, waterproof gloves and shoes with socks. Carefully sweep up spill and place in a closed container for disposal. Dispose of in accordance with all applicable federal, state, and local environmental regulations.

If the product gets wet and temperatures are favorable, the fungus will grow on the wheat and produce spores. These spores can be wet down and washed away with soapy water.

SECTION 8: SPECIAL HANDLING

- Respiratory: Use dust/mist filtering respirator with MSHA/NIOSH approval number prefix N-95, P-95, or R-95 or TC-21C or HE filter.
- Protective gloves: Gloves made of latex or other impervious material.
- Eye protection: Safety goggles or safety glasses with side shields recommended.
- Other protective clothes: Clothing to prevent prolonged skin contact as needed such as long-sleeved shirt, long pants and shoes with socks.

SECTION 9: SPECIAL PRECAUTIONS

Store in a dry area inaccessible to children. Store in original containers only. Keep container closed when not in use.

Send empty container to: Dr. Peter J. Cotty
c/o, Arizona Cotton Research and Protection Council
3721 East Wier Ave.
Phoenix, Arizona 85040-2933

Wash any contamination from skin or eyes immediately. Wash hands and exposed skin after work and before eating, drinking, using tobacco, chewing gum, or using the toilet.

SECTION 10: SHIPPING REGULATIONS

Proper shipping name: None

DOT Label (s) Required: None

Freight Classification: Insecticides, Fungicides N.O.I., Other than Poisons. NMFC 102120 Class 60

SARA Title III Status: None.

National Fire Protection Association Rating:

Health: 0

Flammability: 1

Reactivity: 0

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