ECOLOGICAL TOXICOLOGY Fish: Acute toxicity 30 day LC_{50} >167 mg *A. destruens*/l (measured activity $>3.04 \times 10^4$ CFU/ml) **Birds**: Nontoxic when tested at 6.0×10^8 CFU/kg/day. No sign of pathogenicity or infectivity were observed. **Aquatic invertebrates**: *Daphnia magna,* NOEC 84 mg/l or 1.5×10^4 CFU/ml. **Algae**: Not available. **Bees**: Although exposures to honeybees are likely, such temporary increases are not anticipated to adversely affect the nontarget species. **General comments**: Crop plants including potato, alfalfa, carrot, cranberry, celery, spearmint, maize, cucumber, tomato, squash, pumpkin, beet, spinach, turnip, broccoli, radish, pepper, tobacco, and lettuce are not hosts of *A. destruens* and consequently, would not be affected by the fungal pesticide. it is unlikely that intended applications of *A. destruens* will pose incremental hazards to crop plants of economic importance, or to plants related to the target weed.

ENVIRONMENTAL FATE *Alternaria destruens* 059 does not thrive in aquatic environments and there are no aquatic use sites for the pesticide. Although cranberry is listed as a use site, the product may only be applied to dry bogs. The test substance occurs naturally and is a known coloniser of dodder spp. Population levels of *A. destruens* 059 temporarily increase when used as a pesticide, and no other host or habitat has been identified in studies conducted on related and unrelated nontarget organisms.

Ampelomyces quisqualis M-10

A fungicide used in products against powdery mildews.

Resistance code: Not classified.

NOMENCLATURE Approved name: No approved name.
Common name: No common name.

BIOGEOGRAPHY A naturally occurring fungal hyperparasite of powdery mildews.

TARGETS *Oidium* spp.; *Sphaerotheca* spp.; Erysiphaceae (powdery mildew); *Podosphaera* spp.; *Leveillula taurica* (powdery mildew (cotton, guar)).

CROPS Tomato; Sweet pepper; Cucumber; Melon (except watermelon); Watermelon; Pumpkin (edible); Squash; Eggplant; Strawberry; Grape. *Indicative list only: always check the country-specific label for detailed list of registered crops.*

BIOLOGICAL ACTIVITY Mode of action: The fungal agent penetrates and invades the hyphae and conidiophores of fungi belonging to the family Erysiphaceae. It grows inside the target causing degradation of the cytoplasm, leading to the collapse of hyphal strands and death.

PRODUCTS AQ 10 (CBC (Europe) Srl).

MAMMALIAN TOXICOLOGY Acute oral LD_{50}: $>5.05 \times 10^{12}$ CFU/kg bw (rat). Nonpathogenic, noninfective. **Acute dermal LD_{50}**: >2020 mg/kg bw (rat). Nonpathogenic,

noninfective. **Acute inhalation LD_{50}**: Not available. **Acute intratracheal LD_{50}**: Nonpathogenic. Noninfective. **Irritancy**: Nonirritant to eyes and skin (rabbit). **Sensitisation**: Nonsensitising (guinea pig). **General comments**: Not genotoxic.

ECOLOGICAL TOXICOLOGY Fish: Acute toxicity 96 h LC_{50} NOEC 1.6×10^8 CFU/l. **Birds**: Acute LC_{50} for mallard duck and northern quail >8.335 mg/kg. No signs of pathogenicity or infectivity were observed. **Aquatic invertebrates**: EC_{50} *Daphnia magna,* test inconclusive. Reasoned case conclusion: any spores reaching the water, if they survive, will not have any effects on aquatic organisms. **Algae**: Reasoned case conclusion: spores will not remain viable for long enough to accumulate or to have any adverse effect.
General comments: Since the active substance is strictly specific to fungi of the family Erysiphaceae, there is no expected impact on nontarget organisms. All the tests performed on aquatic organisms, birds and bees gave negative results.

ENVIRONMENTAL FATE Soil: As the active substance can only survive or proliferate in the presence of the host plant pathogen and requires specific humidity and temperature conditions, it is expected that it will have no unacceptable effects in the soil environment nor have any adverse effects on soil micro-organisms. **Water**: Spores will not remain viable for long enough to accumulate or to have any adverse effects.

Aspergillus flavus AF36

A fungicide used in products against Aspergillus spp.

Resistance code: Not classified.

NOMENCLATURE Approved name: No approved name.
Common name: No common name.

BIOGEOGRAPHY *Aspergillus flavus* AF36 was initially isolated in Arizona, USA.

TARGETS *Aspergillus* spp.

CROPS Cotton (all varieties). *Indicative list only: always check the country-specific label for detailed list of registered crops.*

BIOLOGICAL ACTIVITY Mode of action: *Aspergillus flavus* AF36 is a nonaflatoxin-producing strain of the fungus. *Aspergillus flavus* AF36 is applied to the soil prebloom in the growing season. It then germinates and is considered to outcompete the aflatoxin-producing strains.

PRODUCTS Aspergillus flavus AF36 (Arizona Cotton Research and Protection Council).

MAMMALIAN TOXICOLOGY Acute oral LD_{50}: >5000 mg/kg (rat).
Acute dermal LD_{50}: Not available. **Acute inhalation LD_{50}**: Not available.
Acute intratracheal LD_{50}: Not available. **Irritancy**: May be irritating to eyes and skin in some individuals. Product dust may be irritating to the respiratory tract in some individuals.
Sensitisation: Not available. **General comments**: No reports of allergic incidents or other