

CYAZOFAMID

New selective fungicide

Cyazofamid is a new fungicide discovered by ISK. ISK has developed this new fungicide on a global basis. After the first launch in 2001, ISK has started its commercialization in various crops in many countries.

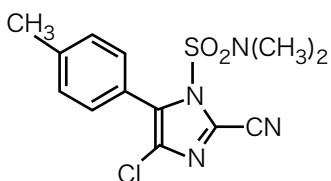
Cyazofamid, with its novel mode of action, is highly effective against Oomycetes diseases. Cyazofamid also has good persistence and offers excellent rainfastness in many crops at low dose rates.

Cyazofamid has no negative impact on beneficial insects and mites, and thus, it will be surely added to integrated pest management programs.

Cyazofamid has good toxicological, environmental and ecotoxicological profiles.

Physico-Chemical Properties

Chemical structure



Class: cyanoimidazole
IUPAC name :
4-chloro-2-cyano-N,N-dimethyl-5-p-tolylimidazole-1-sulfonamide
Mol weight : 324.8
Molecular formula : C₁₃H₁₃ClN₄O₂S
Vapour pressure : 1.3×10^{-2} mPa (35 °C)
Water solubility : 0.107 mg/L(20 °C)
Form : Ivory, odourless powder
Development Code : IKF-916

The efficacy of cyazofamid on potato late blight



Untreated



Cyazofamid 80 g a.i./ha

Application

Cyazofamid is applied at 80-100 g a.i./ha with foliar spray just before/after first disease symptom is observed to control *Oomycete* diseases, such as late blight in potatoes, tomatoes, pepper and other vegetables, and downy mildew in grapevine, cucumber, melon and others.

Mode of Action

Cyazofamid has proven to kill Oomycetes fungi by respiratory inhibition specifically at Complex III in the mitochondria of Oomycetes fungi. Cyazofamid inhibits Qi (ubiquinone-reducing sites) of Complex III of the said fungi, which has not been so far reported for other fungicide.

Characteristics

Very active against Oomycetes fungi, especially *Phytophthora*, *Pseudoperonospora*, *Plasmopara*, *Pythium*, *Albugo* and *Blemia*.

It inhibits all stages in fungus life cycle (in vitro).

Low fungi application rate: 80-100 g a.i./ha or 50-100 ppm conc.

Effective on fungi resistant to other chemical classes

Strong rainfastness

No phytotoxicity concerns

No adverse effects on yeast or microbial activity of fermentation system

Toxicology & Ecotoxicology

Rat LD₅₀ oral : >5000 mg/kg (m/f)
Rat LD₅₀ dermal : >2000 mg/kg (m/f)
Rat LC₅₀ inhalation : >5.5 mg/L (4h) (m/f)

Skin irritation : non irritant
Eye irritation : non irritant
Skin sensitization : not a sensitizer

Birds :
Acute toxicity : LD₅₀ (quail) >2000 mg/kg bw

Fish :
LC₅₀ : (trout, 96 h) 0.56 mg/L (400SC - Adjuvant)
NOEC : (carp, 96 h) > 0.14 mg/L

Bees :
Very low toxicity both orally and by contact

Daphnia magna :
EC₅₀ (48 h) > 0.18 mg/L (400 SC - Adjuvant)

ISHIHARA SANGYO KAISHA, LTD.

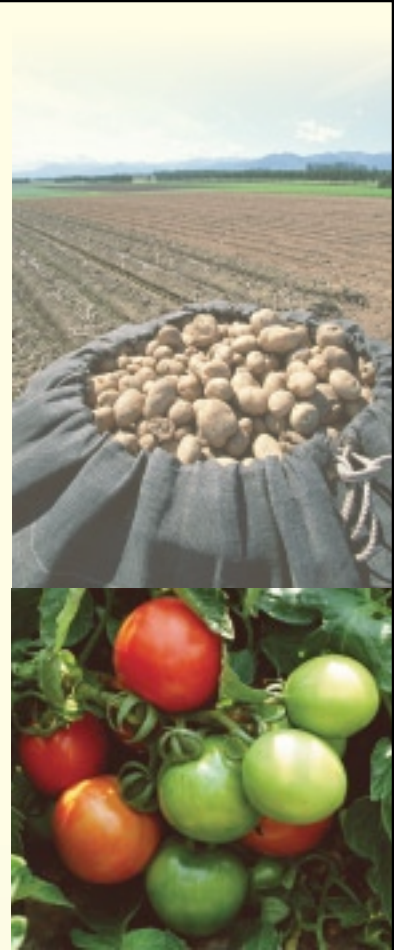
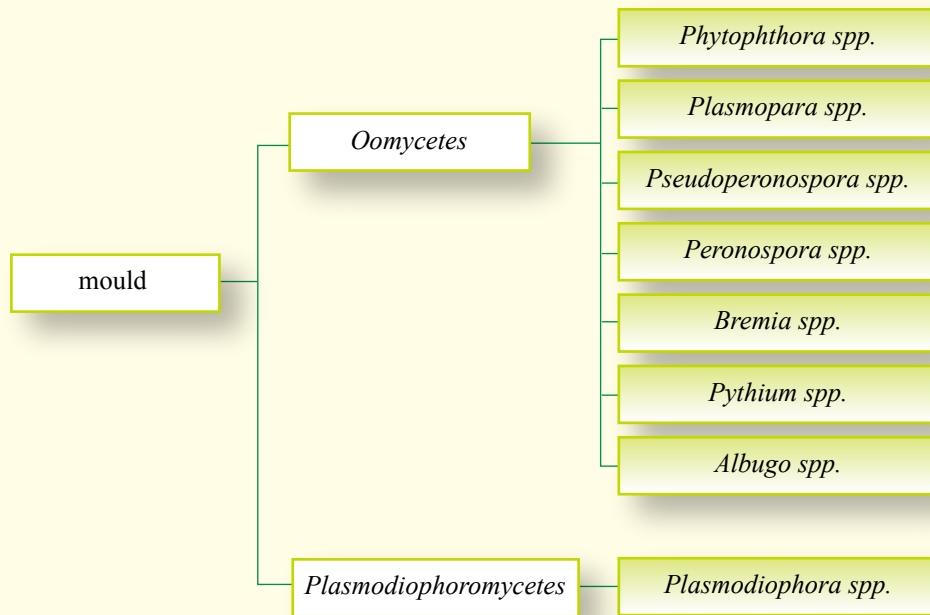
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Spectrum



Product

Trade names	Countries
RANMAN	France, Germany, Netherlands, Belgium, Luxembourg, UK, Ireland, North Ireland, Spain, Portugal, Austria, Switzerland, Italy, Greece, Sweden, Denmark, Finland, Latvia, Lithuania, Estonia, Romania, USA, Canada, Mexico, Costa Rica, Honduras, Chile, Peru, Brazil, Japan, Taiwan
MILDICUT	Germany, Spain, Austria, Italy, Romania, Bulgaria
科佳 (kejia)	China
Milicut	South Korea
Docious	Japan (TPN mixture)

● Formulation type : SC, WG

Control of Potato Tuber Blight

