



KOBE SC

A novel Bio-
Fungicide/Bactericide/ Viricide
for succesful Crop Protection



Sineria





Kobe SC is a highly bio-active plant-derived iopesticide newly developed by Sineria Holland BV of the Netherlands.

The key active ingredients in **Kobe SC** are natural substances extracted by a unique extraction process from the herbal plant *Rheum officinale* Baill and a patent protected isolation method from the roots of the plant *Rumex crispus*.

Kobe SC inhibits the metabolism of fungi cells and thereby prevents the growth of the mycelia (fungal cells) on the subsurface of the plant. **Kobe SC** also limits the growth of conidia (mitospores).

Kobe SC provides excellent and effective protection against powdery mildew, gray mold and various other diseases, on a wide range of crops; among them vegetables, ornamentals, and cereals. It also offers a reliable solution against downy mildew, alternaria, and anthracnose.

As a low toxicity product to humans and livestock, it is friendly to the environment and can be used in vegetable production. It is recommended to use **Kobe SC** before or upon the first sign of infection of the disease.



Mode of action

Kobe SC has a unique fold mode of actions. **Kobe SC** activates the plant immunity by eliciting the Systemic Acquired Resistance (SAR) of the attacked plant and by inducing systemic resistance mode of action, which causes plants to arm their own defense systems against attacking pathogens. One of the more effective resistance self immunity mechanism is manipulating the plant to regenerate phytoalexins that prevent spores and fungus from penetrating the plant.

Crops treated with **Kobe SC** produce and accumulate high ratio of self generated proteins, phytoalexins and other compounds known to inhibit fungal and bacterial diseases and effectively stop the disease or infection from migrating to neighboring cells.

When a crop is treated with **Kobe SC**, its natural defence system is "activated" to protect itself against attacking diseases.

KOBE SC was also found to inhibit sporulation by biosynthesis of existing hostile cells. It has a good preventative, moderate curative and eradicated action due to the rapid translocation of *Rheum officinale* Baill plant extract in the plant.

KOBE SC also works as an eradicator by fencing fungal haustoria, which are cut off from their nutrient supply and therefore die. The key active ingredients of **KOBE SC**, *Rheum officinale* Baill, can be produced from various plants as well as several fungi, among them *Aspergillus* spp. and *Penicillium* spp. Both are known to have anti-tumor activity, strong antioxidant and anti-mutagenic activity.

KOBE SC® Characteristics

- A new botanical extract with a unique mode of action.
- Attacks the fung at different target sites in their metabolic pathways.
- Low MRL (Maximum Residue Level) index.
- Highly effective against powdery mildew as well as downy mildew, gray mold, and anthracnose.
- Compatible with other pesticides.
- Unique mode of action as a translaminar acquired resistance elicitor and a low cross resistance with other types of fungicides.
- Observed to be safe to Phytoseiulus persimilis, honey bees, livestock, and the environment.
- An excellent IPM program compliance product.
- OMRI listed for use in Organic Agriculture

Known Toxicological Profile

	Acute oral toxicity to rat (LD ₅₀ mg/ka)	Acute dermal toxicity to rabbit (LD ₅₀ mg/ka)
Technical active ingredient	>5000	>2000
Kobe SC	>5000	>2000

Rates of Application

Recommended general application rate: 100 ml per 50-60 L of water.

Crop	Diseases	Application Rates	Rate per 16Lt water	Remarks
Tomatoes, Peppers, Potatoes, Onions, Eggplants, Okras, Cucumbers, Muskmelons, Strawberries	Powdery mildew	1.5 - 2.0 Lt in 1000 Lt water	50 - 100 ml	The higher rate is in case of actual introduction of powdery mildew in the field
	Gray mold, Downy mildew, Early and Late blight	2.0 Lt in 1000 Lt water	50 - 100 ml	
	Viral* and Bacterial** diseases	2.0 - 3.0 Lt in 1000 Lt water	50 - 100 ml	* TYLCV, TSWV, PVY ** Ralstonia, sp.
Wheat	Powdery mildew and Rust	1.0 - 1.5 Lt per Ha	50 - 100 ml	
Tobacco, Soyabean	Fungal diseases ⁺ , Viral diseases ⁺⁺ , and Bacterial diseases ⁺⁺⁺	1.0 - 2.0 Lt per Ha	100 - 150 ml	⁺ Powdery/ Downy mildew, Blue/ Gray mold, Frog-eye leaf spot, Black shank, Pythium root rot (PRR), Fusarium wilt. ⁺⁺ PVY, TMV, TNV, TSWV. ⁺⁺⁺ Wildfire / Angular leaf spot, Bacterial wilt

*The rates given are reference rates only. When using the product always test a small area first before commencing commercial use.

Apply evenly and thoroughly prior to the appearance of diseases or when a disease first appears. Repeat at 10 day intervals necessary.

User Precautions

- **Kobe SC** is a protective bio-pesticide. It is preferably applied prior to the appearance of the disease or upon the first symptoms. Good control of the disease is less effective when applied at a later stage.
- **Kobe SC** is non-systemic. Even and thoroughly spraying is necessary to obtain the anticipated protective effects.
- **Kobe SC** residual activity lasts approximately 10 days. Repeated applications are required to protect crops from disease infection during the entire growing season
- Even though **Kobe SC** is of low toxicity to humans and livestock, applicators and other handlers must take protective measures when they apply the fungicide as stipulated in the requirements of pesticide regulations.
- Store unused product in original containers only, in cool, dry area, out of reach of children and animals. Do not contaminate water, food, and feed by storage and disposal.



Important Note:

The indicated crops and recommended rate of application mentioned in this Product informative sheet may not be applicable in the country where the product is intended to be used. User must refer and use the product only as per the official registration at the country of use and the approved uses and rates by the authorized authorities. The supplier will not be responsible or liable if the product is used on crops which are not listed on the official label as approved by the ministry of agriculture at the country of use.

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