MAK ALL SEASON HMO

Environmentally Friendly Spray Oil for Effective Pest Management in Apple Orchards

MAK All Season HMO is a highly refined emulsifiable oil designed for pest management. It consists of refined petroleum oil with a very high paraffinic content, high unsulfonated residue, and optimal molecular weight, providing maximum pesticidal control while ensuring no harm to the plants.

It provides an environmentally friendly method of pest control by not relying on chemical toxicity. Instead, it works by creating an oil layer over the pests, suffocating them. This approach effectively eliminates pests without introducing toxicity to plants, fruits, soil, or water.

Applications:
MAK All Season HMO is available as an emulsifiable concentrate and is used by mixing it with water to create an emulsion. This emulsion is then sprayed using conventional spraying equipment.

MAK All Season HMO is a highly effective and reliable solution for controlling San Jose scale and European red spider mites in apple orchards.

The recommended dosage is 2%, which means spraying 2 liters of oil per 100 liters of water to control the pests in apple orchards as mentioned above. It is crucial to spray this oil during the dormancy period, from the silver tip stage to a maximum of the 1/4th green tip stage of the apple orchard. Using it at the recommended dosage enhances plant safety and reduces phytotoxicity.

This product is also approved and recommended for organic farming purposes.

Performance/ Benefits:

- Negligibly toxic compared to chemical pesticides, making it environmentally friendly.
- Does not lead to pest resistance.
- Safe for beneficial insects
- High paraffinic content (Cp > 70%) ensures strong pesticidal control.
- High Unsulfonated Residue (USR) indicates a high degree of refinement and purity, making it safer for plants.

Specification:

- Proprietary grade

Credentials/ Recommendations:

- Successful evaluations at Sher-E-Kashmir University of Agricultural Sciences & Technology, J&K
- Successfully evaluated at Y S Parmar Agricultural Institute, Shimla
- Approved for use in organic agriculture according to NPOP standards by IMO Control
- Allowed also for use in plant production under the IMO IN Organic Standard (equivalent to Regulation (EC) No. 834/2007 and Regulation (EC) No. 889/2008)

Typical Physico-Chemical Data: MAK All Season HMO

Characteristics	Method	Value
Appearance	--	Cl & Br
Density at 15° C	ASTM D1298	0.843
K.V at 40° C, cSt	ASTM D445	14.65
Pour Point, °C	ASTM D97	-12
Unsulphonated Residue, % Vol.	ASTM D 483	>96%
Hydrocarbon type, mass% Saturate hydrocarbons Aromatic carbons	-	 >99 <1%

All the mentioned values are typical which may vary from batch to batch.

Storage & Handling:
The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing and store under protected storage conditions.

Health & Safety:
This grade is not hazardous under normal conditions of use. For further guidance Material Safety Data Sheet (MSDS) may be referred.

Advice:
For any further advice on applications or otherwise, please contact the nearest Bharat Petroleum territory office or Technical Services department at the address given below.

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