



Date : 07/10/2004

Date de révision: 09/12/2009

PRODUCT DATA SHEET

Product: BIOX-M (MINT OIL)

Identification:

Type of product: raw material extracted from natural spear mint. (Mentha spicata L)

Technical name: essential oil, containing between 65 and 85% of L-carvone.

Protected crops:

Post-harvest treatment of potatoes against sprouting.

Physical-Chemical Characteristic of the mint oil:

Appearance: pale yellow liquid
Specific gravity: 0.944-0.954
Vapor pressure: comprised between 175 KPA and 300 KPA
Refractive index: 1.492-1.496
Miscibility:
 With water: insoluble
 With ethanol: soluble
Flash point: 94°C-closed cup.
Others properties: Fresh, candy, characteristic odor

Active ingredient:

L-Carvone

Physical-Chemical characteristic of the active ingredient:

Appearance: pale yellow liquid
Formula: $C_{10}H_{14}O$
Mw 150.21
Chemical name: 6,8 paramenthadiène-2-one
Specific gravity: 0.965
Boiling point: 230-231°C
Insoluble in water
Miscible with ethyl alcohol
nD 20°C: 1.4938

Principle of the Method:

In this process the MINT OIL is heated up to 185-190°C during a very short time in a fast flow of air, and is dispersed as a fog made of the very fine particles.

Date of treatment and application rate:

First application between 6 and 15 days after harvesting at a rate of 90g/ton. Then repeat application every 3 weeks at a rate of 30 g/ton

Application Method:

For the best results of the anti-sprouting treatment of potatoes, you have to obtain (through circulation of forced and recycled air) a good product penetration into the tubers heaps.

It is particularly important to verify that the sprouting of tubers has not occurred before treatment, that the potatoes are ripe, correctly de-earthed, and at temperatures comprised between 8°C and 10°C at the moment of treatment.

Refer to XEDA'S instructions n° 50.

Once the storage room is full:

Introduce the ELECTROFOG pipe into the technical corridor and beyond the fans, as far as possible from them. You can also introduce the pipe into the room through a hole in the wall or in the door higher than the heap. Protect the top of the heap closed to the machine in order to avoid excess of residues. The treatment is achieved by the circulation of the fog through the heap. Recirculation fans will be operate alternatively.

In order to operate XEDA'S ELECTROFOG, follow the technical sheet n°20 with an exit temperature between 185°C and 190°C.

After treatment stop ventilation and refrigeration to allow the fog to act minimum for 48 hours or better 72. Then reestablish automatic control.

IMPORTANT: Follow the treatment instruction contained in XEDA'S instructions "Recommendations for Thermal Fogging, Anti-Sprouting Treatment" and instructions "Electrofog Xeda" (Ref 50 and 20).

Specific Risks:

Harmful R 43 S 60-62

Fire hazards and recommended means of extinction:

CO₂, powder, foam, halogen, extinguishers.

Avoid Water

Administrative Situation:

FEMA: 3032

FDA: 182.20

CEE: 285

Conformity I.F.R.A

RIFM: Vol.16 p.871

EINCS: 283-656-2

CAS: 8008-79-5

Precautions: In order to obtain the best results, strictly follow the instructions reported in these Data Sheets and in the packaging labels, which are both in accordance with the vigorous legislation inherent to the use of all pesticides, are modeled after the results of official and private experimentation. These results of the activity of BIOX M, despite always being constant in our experimentation, are not an absolute guarantee against all potato sprouting. Agro-technical factors, and the storage conditions of the potatoes play a main role in sprouting development.

XEDA rejects any liability concerning the consequences of this use, granting only the supply of specialties legally registered and corresponding to the formula appearing on the packaging label.

Packaging and Storage:

20 kg net can, to be stored at a temperature between 0°C and 45°C. A shelf life up to 5 years will be assured in case the sealed container is stored in the respect on these recommendations.