

## TECHNICAL DATA BULLETIN

### PRODUCT TECHNICAL INFORMATION AND APPLICATIONS

## **BROMOX<sup>®</sup> 240EC**

*(BROMOXYNIL OCTANOATE 24% W/V)*

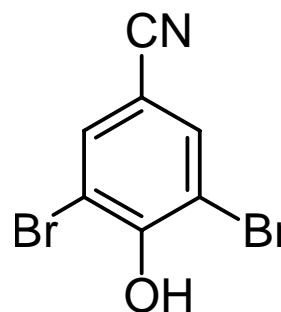
### 1. INTRODUCTION:

**Bromox** 240EC is an emulsifiable concentrate herbicide formulation of the *hydroxybenzonitrile* compound **Bromoxynil Octanoate**. It is used for the control of a number of broadleaf weeds in some agricultural crops including onion, garlic and established grasslands.

### 2. ACTIVE INGREDIENT:

<b>Common Name</b>	<b><i>Bromoxynil Octanoate</i></b>
Chemical Group	Hydroxybenzonitrile
CAS Registry No.	1689-84-5
Molecular Formula	C <sub>15</sub> H <sub>17</sub> Br <sub>2</sub> NO <sub>2</sub>

Structural Formula



Molecular weight	403.0
Vapour Pressure	1.9 10 <sup>-1</sup> mPa (25 °C)
K <sub>ow</sub> log P	5.4
Acute oral LD <sub>50</sub> , Male rat	365 mg/kg



### 3. PHYSIOCHEMICAL PROPERTIES OF THE PRODUCT:

Assay	:	"Bromoxynil Octanoate" 240 ± 12 g/L
Appearance	:	Clear brown liquid free of visible impurities
Odour	:	Aromatic
Density	:	0.98 – 1.10
Water contents	:	0.2% w/w max.
Acidity as H <sub>2</sub> SO <sub>4</sub> :		Max 0.2 ml (Of 1NH <sub>2</sub> SO <sub>4</sub> / g of Bromoxynil Octanoate)

### 4. MODE OF ACTION:

**Bromox** 240EC inhibits photosynthesis and uncouples oxidative phosphorylation. It acts as a selective contact herbicide with some systemic activity. It is readily absorbed into the leaves with little movement to the other parts of the plants.

### 5. USES:

**Bromox** 240EC is used for post-emergence control of annual broadleaf weeds especially young seedlings in a number of crops. The most important annual broadleaf weeds controlled by Bromox 240EC include lambsquarters, chickweeds, pigweed, saw thistle, wild spinach, mallow, mustard, knot weed, buckwheat and many others. Bromox 240EC can be used in a number of crops such as wheat, barley, seedling alfalfa, onion, garlic, corn, sorghum, oats, rye, peppermint, and other established grassland.

### 6. PHYTOTOXICITY:

**Bromox** 240EC is not phytotoxic to target crops when applied accordingly to the label recommendation..



## 7. COMPATIBILITY:

**Bromox** 240EC can be tank-mixed with a number of herbicides including loxynil, Atrazine, MCPA, 2, 4-D, Mecoprop and many others.

## 8. APPLICATION:

**Bromox** 240EC is applied as a spray after being diluted with water. It is applied at the rate of 400 – 600 g a.i/ha i.e. 1.4 – 2.1 L / ha. The application rate depends on the stage of the target weeds and crop to be treated. The best results are obtained when cereals are in the 2 – 3 stage and weeds are past the 3 – 4 leaf stage. Bromox 240 EC should not be applied on crops stressed from lack of moisture.

On wheat and barley, Bromox 240EC is applied on the emergence of the flag-leaf and when the weeds are on the 1-4 leaves stage. It is applied at the rate of 2.0 L/ha using boom sprayers. It is recommended to use a spray volume of 200 – 300 L/ha

When Bromox 240EC is applied on wheat and barley, the application rate should be increased to 2.5 L/ha, the central pivot should be operated at the fastest speed and the water depth should not exceed 8 mm.

On onions and garlic Bromox 240EC is applied at the rate of 1.5 L/ha

On alfalfa, Bromox 240EC is used when the crop is the 2-4 trifoliate stage. It is applied at the rate of 1 – 2 L/ha.

The following table can be used as a guide for the application of Bromox 240EC

### *Recommendations for Use*

Crop	Weeds	Application Rate	Withholding period
Wheat and Barley	Broadleaved Weeds	1.75 – 2.3 L/ha in 200 - 400 L of water	42 Days
Corn and Sorghum	Broadleaved Weeds	1.75 – 2.3 L/ha in 200 - 400 L of water	42 Days
Green lawns & noncrop lands		1.75 – 2.3 L/ha	



**9. HARVEST INTERVALS:**

Harvest intervals varies with the treated crop.

**10. WITHHOLDING PERIOD**

All livestock should be kept out of the treated area for six weeks.

**11. HANDLING, STORAGE AND TRANSPORTATION:**

**Bromox** 240EC should be transported its original labeled, tightly closed container and stored in a dry well ventilated store at room temperature and away from direct sunlight. It should also be kept away from children, animals, food, feed and drinks and unauthorized personnel. Personnel involved in handling this material should wear protective gloves, clean protective clothing and a facemask.