THIAMETHOXAM TECHNICAL

Description of Technical

Thiamethoxam is a nicotinoid compound with broad-spectrum insecticidal properties. It is registered for use on numerous crops in many countries against sucking and chewing insects in vegetables, ornamentals, field crops, deciduous fruits, citrus, cotton and rice. It possesses contact and stomach activity. Its systemic properties has resulted in its use against foliar feeding insects via seed treatment, soil application, through irrigation systems, or applied to the trunks of trees. It is also registered for direct foliar application.

Common Name : Thiamethoxam
IUPAC Name : (EZ)-3-(2-chloro-1,3-thiazol-5-ylmethyl)-5-methyl-1,3,5-oxadiazinan-4-ylidene(nitro)amine
C.A. Name : 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro-4H-1,3,5-oxadiazin-4-imine
Chemical Family : Neonicotinoid

Structural Formula

Empirical formula : \( \text{C}_8\text{H}_{10}\text{ClN}_5\text{O}_3\text{S} \)
Molecular Weight (g mol\(^{-1}\)) : 291.71
C.A.S. No. : 153719-23-4
Physical State : Crystalline powder
Melting Point : 139.1 ºC
Odour : Moldy odor
Density : 1.57 g/l at 20 ºC
Vapour Pressure : 6.60 X 10^{-06} mPa at 25 ºC
Flash Point : Not expected to self-ignite; Not highly flammable
Explosion Hazard : Not explosive
Solubility in water : 4100 mg/l at 20 ºC
Stability : Stable in water at pH 5

THIAMETHOXAM TECHNICAL
Sales Specification

Thiamethoxam content by mass : 97% min
Moisture content : 0.2% max
Packing : LDPE/HDPE sacks of capacity upto 200 kg which are further packed in MS drums

Transportation information : UN No.3077
Class 9
IMDG code
UN 3077 Environmentally Hazardous Substance, Solid, N.O.S. 9 PG III
marine pollutant
Packing Group III
# TOXICOLOGICAL PROFILE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Acute oral</td>
<td>Rat</td>
<td>1563 mg/kg</td>
</tr>
<tr>
<td>LD50 acute Percutaneous</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation (4hr)</td>
<td>Rat</td>
<td>&gt;3.720 mg/l air</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Rabbit</td>
<td>Non-irritant</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>Rabbit</td>
<td>Non-irritant</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Rabbit</td>
<td>Not a skin sensitizer</td>
</tr>
</tbody>
</table>