

Technical Data Sheet

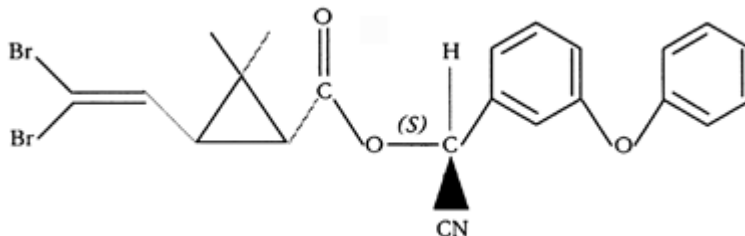
CHEMICAL IDENTIFICATION

Common Name:	DELTAMETHRIN
Chemical Names:	(S)-alpha-cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dibromovinyl) 2,2-dimethylcyclopropanecarboxylate,
Chemical Family:	Synthetic Pyrethroid.
CAS Number:	52918-63-5
Empirical Formula:	CH ₂₂ H ₁₉ B ₂ NO ₃
Purity:	98%

The material shall also comply with the requirements as given in following table:.

Sr.No	Characteristic	Requirement
i)	Deltamethrin content, percent by mass,	Min 98%
ii)	Melting Point	98°C - 101°C
iii)	Optical rotation of 1 percent solution in benzene at 20°C.	57+ 1.5°C
iv)	Acid chloride corresponding to Deltamethrin, percent by mass	Max. 0.2
v)	Acid + anhydride corresponding to Deltamethrin, percent by mass	Max. 1.0

Structural Formula:



Technical Data Sheet

PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight:	505.21
Appearance:	Colourless crystals
Odour:	Mild odour
Melting Point:	100-102°C
Density:	Bulk density 0.5 g/cm ³ (25°C)
Vapour Pressure:	1.24 x 10 ⁻⁵ mPa (25°C)
Flash Point:	> 98°C
Stability:	Relatively stable in neutral and weakly acidic media. More stable in acidic than alkaline media. Stable when exposed to air, uv irradiation and in sunlight. Stable in storage over one year at 25°C.
Solubility in water:	Insoluble in water < 0.00002 g/l @25°C
Solubility in Solvents:	Soluble in most organic solvent like, acetone, ethanol, methanol, benzene etc.
Explosiveness:	Non explosive
Oxidising Properties:	Shows no oxidising properties
Corrosive Properties:	Non corrosive

TOXICOLOGICAL INFORMATION

Acute Toxicity	
LD ₅₀ Oral (rat)	135->5000 mg/kg
LD ₅₀ Oral (dog)	> 300 mg/kg
LC ₅₀ Inhalation (rat)	2.2 mg/l (1h)
LD ₅₀ Dermal (rabbit)	> 2000 mg/kg
LC ₅₀ Mallard Duck	> 4640 mg/kg
LC ₅₀ Quail	> 5620 mg/kg
Irritancy	
Eye (rabbit):	Mild eye irritation
Skin (rabbit):	No skin irritation
Sensitisation (guinea pig):	No sensitisation

ENVIRONMENTAL INFORMATION

LC ₅₀ Rainbow Trout:	0.00056 mg/l (96 h)
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TOXICITY TOWARDS BENEFICIAL INSECTS

Bees	Highly Toxic
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Technical Data Sheet

PACKAGING DETAILS

Packed in polyethylene liners as primary packing to accommodate 5 and 25 kg material. Mild steel drums lacquered inside or in fibreboard drum as secondary packing.

LABELLING DETAILS

In accordance with the EEC norms relevant to the classification of and the labelling of dangerous goods. Deltamethrin is labelled with the following symbols and phrases:

Symbol:	T and N
Risk Phrases:	R23,25,50,53
Safety Phrases:	S24,28,36,37,38,39,45,60,61

The statements made in this Data Sheet are, to the best of our knowledge, as accurate as possible, are given only for information and are without guarantee or responsibility on our part regarding the various laws or patents in connection with the use of the product. Further information is available on request.