SHIVALIK RASAYAN LIMITED

DIMETHOATE TECHNICAL

Dimethoate technical is used in preparation of formulations used in the control of a broad range of insect and mites. Dimethoate is primarily and organophosphorous based systemic insecticide but also possesses properties of a contact insecticide and an acaricide. It is an insecticide of moderate mammalian toxicity which is widely used against piercing sucking insects, spider mites, chewing mining and boring insects on cereals, cotton, chilies, tobacco, vegetables, fruit crops, tea and coffee etc.

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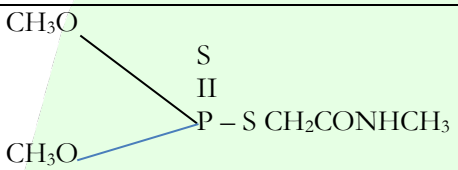
DIMETHOATE TECHNICAL

General Information

PHYSICAL-CHEMICAL PROPERTIES:			
1.	Primary Use	:	Insecticide
2.	Chemical Group	:	Organophosphorous compound
3.	Common Name	:	Dimethoate (ISO)
4.	Identity	:	O, O-dimethyl S-N-Methyl-carbbamolyethyl) phosphorodithioate
5.	Emperical Formula	:	$C_5H_{12}NO_3PS_2$
6.	Molecular Weight	:	229.2
7.	Structural Formula	:	
8.	Synopsis	:	An insecticide and acaricide of moderate mammalian toxicity which is used against a broad range of agricultural insects and mite pests. It is active after metabolism both as a systemic and as a contact insecticide

PHYSICAL-CHEMICAL PROPERTIES:			
1.	Physical Characteristics	:	Technical dimethoate is in the form of white to off-white solid to semi-solid mass
2.	Melting Point	:	Pure grade 51 – 52°C
3.	Vapour Pressure	:	8.5 x 10^{-6} mm Hg at 25°C
4.	Solubility	:	Water 25g/ 1 at 21°C. Soluble in most organic solvents except saturated hydrocarbons such as hexane
5.	Shelf Life	:	Technical grade : 6 months in case the material is stored at room temperature and $1^{1/2}$ year in case the material is stored in cold storage at a temperature of 10°C
6.	Stability	:	Stable in aqueous solution, but is readily hydrolysed by aqueous alkali heating converts it to the SCH_3 isomer
7.	Specifications	:	Dimethoate Technical conforms to the requirements of IS3902-1975, with latest amendments, if any

PACKING:
Packed in HDPE Barrels of 250kgs

SPECIFICATIONS:			
1.	Dimethoate content, percent by mass	:	90% min.
2.	Water content, percent by mass	:	1.0% max.
3.	Material insoluble in acetone, percent by mass	:	0.5% max.
4.	Acidity (As H2SO4), percent by mass	:	3.0% max.