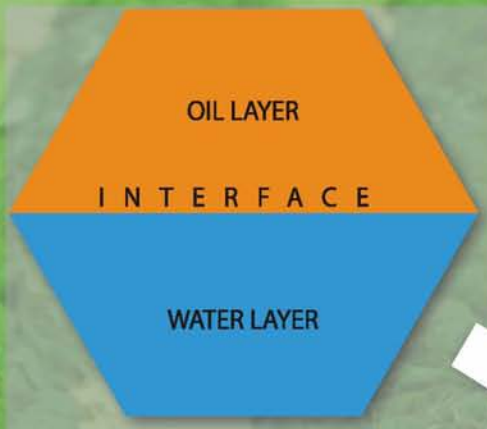
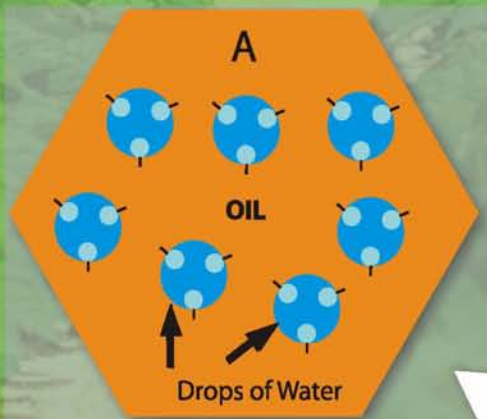
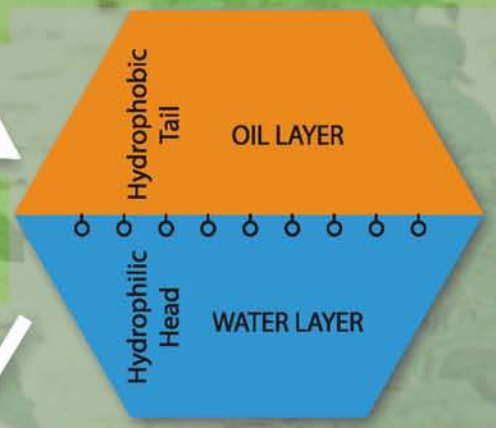


# Agro Emulsifiers



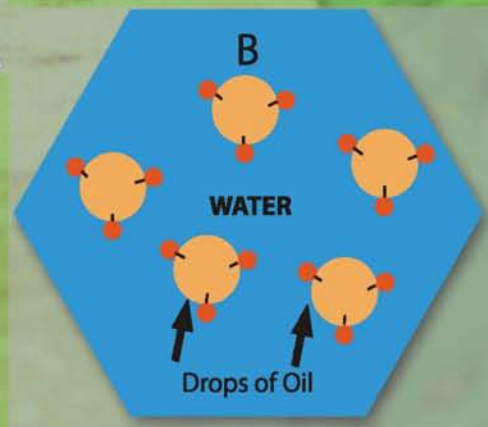
**Introduction of "VICAPEST".**  
 Each molecule consists of a hydrophobic "Tail" and a hydrophilic "Head"



*Emulsification to give*

**VICAPEST molecules align themselves with their hydrophobic "Tails" in the oil and their hydrophile "Heads" in water at the interface**

*A Water in oil emulsion*  
*B oil in water emulsion*



**Emulsification of oil and water to give oil-in-water and water-in-oil emulsions as produced with "VICAPEST"**



**VISWAAT**

# Emulsifiers



Vicapest Emulsifiers, manufactured by **Viswaat Chemicals Limited** are specially developed for top performance in a broad range of pesticides and give excellent stable emulsions to practically all of the major toxicants and solvents in water ranging from 40 to 500 ppm hardness. These Emulsifiers are non toxic and have been prepared by careful selection of blends of Surfactants to give thick milky emulsification of the concentrate, with excellent hot and cold storage stability. The emulsification of the concentrate passes all pesticide formulation standards.

Vicapest Emulsifiers are blends of Anionic and Nonionic surfactants or Blends of polyglycol ether's plus anionic, soluble in water, and aromatic and chlorinated solvents. The constituents of Vicapest Emulsifiers do not react in any way with the active pesticide ingredients. In many cases lower dosage of these emulsifiers show excellent exceptional spontaneity of emulsification, blooming thickness. Even when a new toxic system is to be considered, which may not be included in the list, one of the above or blend of them will definitely serve the purpose.

# EMULSIFIERS SELECTION PROCEDURE

Selection of correct Emulsifier is dependent on the nature of Toxicants, type of solvents and other additives if any. **Viswaat Chemicals Limited**, by virtue of its innovative approach offers user friendly, performance oriented Single Emulsifier, with the advantage of lower dosage and stability.

## Preparation Of Emulsifiable Concentrates (EC) :

i) Nine (9) stoppered cylinders taken to blend the Emulsifiers with Blank (solutions of liquid concentrate having toxicant and additives) as per the below chart to get the desired emulsifiable concentrates.

BLANK	91	92	93	94	95	96	97	98	99
VICAPEST EMULSIFIER	9	8	7	6	5	4	3	2	1

ii) The above various combinations were checked individually for Emulsion formation, Flowability, Opalescence as per BIS specifications of ECS.

iii) Two best combinations (eg 94:6 and 95:5) were further taken for fine tuning. The same exercise were carried out with 0.2% increase from these two combinations and accordingly best EC was selected.

iv) Such detailed exercise may not be required for the formulation as surfactant manufactures will provide specific dosage of emulsifiers for specific toxicant system.

v) As per our experience in developing emulsifiers for pesticide formulation 5 -10% dosage of Vicapest emulsifiers give satisfactory performance.

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*Above recommended ratio given from our experience and dosage of emulsifiers may vary due to difference in the purity of Technical and variance in compositions.*

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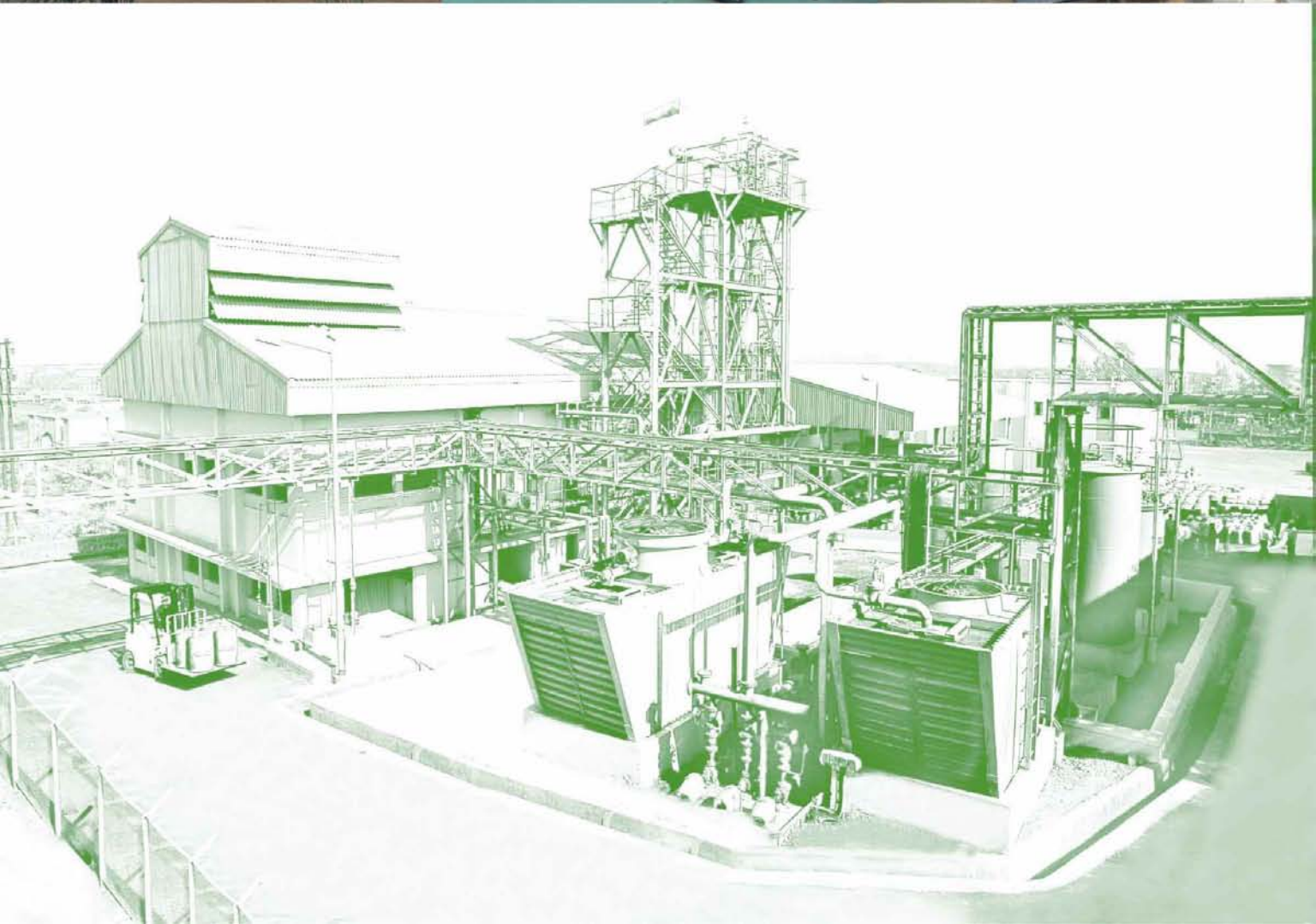
# VICAPEST EMULSIFIERS RECOMMEND FORMULATION CHART

SR. NO.	TECHNICAL	EMULSIFIER		% DOSAGE	SOLVENT
		A	B		
1.	<b>Butachlor 50% EC</b>	Vicapest VIS	Vicapest 1035	5 to 6	Kerosene
2.	<b>Cypermethrin 10% EC</b>	Vicapest DNA 30	Vicapest DNA 70	6 to 8	C9 / Re 9
3.	<b>Cypermethrin 25% EC</b>	Vicapest DNA 30	Vicapest DNA 70	8 to 10	C9 / Re 9
4.	<b>Chlorpyrifos 20% EC</b>	Vicapest BPC 400	Vicapest BPC 500	5 to 6	C9 / Re 9
5.	<b>Chlorpyrifos 50% EC</b>	Vicapest BPC 400	Vicapest BPC 500	6 to 7	C9 / Re 9
6.	<b>CPP 50% + Cyper 5% EC</b>	Vicapest DNA 30	Vicapest DNA 70	9 to 10	C9
7.	<b>Cartap</b>	Vicapest CAR	Vicapest RE 850	4 to 5	-
8.	<b>Dimethoat 30% EC</b>	Vicapest DIM 30	Vicapest DIM 70	8 to 10	C9
9.	<b>Endosulfan 35% EC</b>	Vicapest END 100	Vicapest END 200	5 to 6	C9 / Aromax
10.	<b>Endosulfan 50% EC</b>	Vicapest END 100	Vicapest END 200	6 to 7	C9 / Aromax
11.	<b>Endosultan 35% EC</b>	Vicapest ENX 100	Vicapest ENX 200	5 to 6	Xylene
12.	<b>Endosulfan 50% EC</b>	Vicapest ENX 100	Vicapest ENX 200	6 to 7	Xylene
13.	<b>Fenvelrate 20% EC</b>	Vicapest DNA 30	Vicapest DNA 70	7 to 8	C9 / Re 9
14.	<b>Glyphosate</b>	Vicapest GLF	-	8 to 10	C9
15.	<b>Hexaconizole 35% EC</b>	Vicapest JH 350	Vicapest JH 500	7 to 8	C9 / Xylene
16.	<b>Hexaconizole 50% EC</b>	Vicapest JH 350	Vicapest JH 500	8 to 10	C9 / Xylene
17.	<b>Lambdamethrin 2.5% EC</b>	Vicapest VIS	Vicapest RN 50	6 to 7	C9 / Re 9
18.	<b>Lambdamethrin 5% EC</b>	Vicapest VIS	Vicapest RN 50	7 to 8	C9 / Re 9
19.	<b>Methyl Parathion 50% EC</b>	Vicapest MLP 30	Vicapest MLP 70	8 to 10	C9
20.	<b>Neem Oil</b>	Vicapest NOE	-	7 to 8	C9
21.	<b>Neem Oil</b>	Vicapest NEM	-	4 to 6	IPA
22.	<b>Norton</b>	Vicapest NOE	-	7 to 8	C9
23.	<b>Profenofos 50% EC</b>	Vicapest DNP 100	Vicapest DNP 200	10 to 12	C9
24.	<b>Propiconizole 50% EC</b>	Vicapest JH 350	Vicapest JH 500	7 to 8	C9 / Xylene
25.	<b>Pretilachlor 50% EC</b>	Vicapest DNA 30	Vicapest DNA 70	6 to 7	C9 / Re 9
26.	<b>Pendimethalin 50% EC</b>	Vicapest DNA 30	Vicapest DNA 70	7 to 8	C9 / Re 9
27.	<b>Quinolphos 25% EC</b>	Vicapest DNA 30	Vicapest DNA 70	7 to 8	C9 / Re 9
28.	<b>Triazophos 40% EC</b>	Vicapest DNT 100	Vicapest DNT 200	14 to 15	C9
29.	<b>2, 4 Diethyl Ester 38% EC</b>	Vicapest DEE 30	Vicapest DEE 70	7 to 8	C9 / Re 9



**Viswaat Chemicals Ltd**, an ISO 9001: 2000 professionally managed company with a rare blend of global quality, capability and adaptability has emerged as a trusted supplier of performance chemicals to various industries like Agro, Pharmaceutical, Construction, Refinery, Personal Care, Paints, Leather, Textile to name a few.

Viswaat's state-of-the-art manufacturing plant is located at Ambernath, near Mumbai and is equipped with the latest machinery and sophisticated processes.





**VISWAAT**

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