

Laboratory **Hyderabad Chemical Private Limited Laboratory, A-24/25, A.P.I.E.,
Balanagar, Hyderabad, Telangana**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6512**

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Validity **15.11.2017 to 14.11.2019**

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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CHEMICAL TESTING

I.	PESTICIDE FORMULATIONS			
1.	Emulsifiable Concentrates (EC)			
a.	Anilophos 30%	Active Ingredient	Annex A-3 of IS 13402-1992	10 % to 40 %
		Description	Clause 3.2.1, From Amendment No.1 of IS 13403-1992	Qualitative
b.	Alphacypermethrin 10%	Active Ingredient	Annex A-2 of IS 15616-2006	5 % to 15 %
		Description	Clause 3.2.1 of IS: 15602-2005	Qualitative
c.	Butachlor 50%	Active Ingredient	Appendix A-1 from Amendment No.1 of IS 9355-1980	15 % to 60 %
		Description	Clause 2.2.1 of IS 9356-1980	Qualitative
d.	Cypermethrin 10%	Active Ingredient	Appendix A-2 from amendment No.3 of IS 12015-1987	5 % to 15 %
		Description	Clause 2.2.1 of IS 12016-1987	Qualitative
e.	Cypermethrin 25%	Active Ingredient	Appendix A-2 from amendment No.3 of IS 12015-1987	10 % to 35 %
		Description	Clause 2.2.1 of IS 12016-1987	Qualitative
f.	Chlorpyrifos 20%	Active Ingredient	Annex A-2 of IS 8963-2006 (First Revision)	10 % to 30 %
		Description	Clause 3.2.1 of IS 8944-2005 (First Revision)	Qualitative

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g.	Chlorpyrifos 50%	Active Ingredient	Annex A-2 of IS 8963-2006 (First Revision)	15 % to 60 %
		Description	Clause 3.2.1 of IS 8944-2005 (First Revision)	Qualitative
h.	Chlorpyrifos 50% + Cypermethrin 5%	Chlorpyrifos content & Cypermethrin Content	Annex A-0 of IS 15235-2002	15 % to 60 % 3 % to 10 %
		Description	Clause 3.2.1 of IS 15235-2002	Qualitative
i.	Dimethoate 30%	Active Ingredient	Appendix A-0 of IS 3903-1984	10 % to 40 %
		Description	Clause 2.2.1 of IS 3903-1984	Qualitative
j.	Dicofol 18.5%	Active Ingredient	Appendix- c (Clause 2.3.1) of IS 5279-1969	5 % to 25 %
		Description	Clause 2.2.1 of IS 5279-1969	Qualitative
k.	Dichlorvos 76%	Active ingredient	Appendix A from Amendment No.1 of IS 4929-1978	20 % to 80 %
		Description	Clause 2.2.1 of IS 5277-1978	Qualitative
l.	Ethion 50%	Active Ingredient	Appendix A-2 of IS 10369-1982	15 % to 60 %
		Description	Clause 2.2.1 of IS 10319-1982	Qualitative
m.	Ethion 40% + Cypermethrin 5%	Ethion content & Cypermethrin content	Appendix A-2 of IS 10369-1982 & Appendix A-2 from amendment No.3 of IS 12015-1987	13 % to 50 % 3 % to 10 %
		Description	Clause 3.2.1 of IS 15606-2005	Qualitative
n.	Fenvalerate 20%	Active Ingredient	Appendix A-2 of IS 12003-1987	10 % to 30 %

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		Description	Clause 2.2.1 of IS 11997-1987	Qualitative
o.	Hexaconazole 5%	Active Ingredient	Annex A of IS 14549-1998	3 % to 10 %
		Description	Clause 3.2.1 of IS 14550-1998	Qualitative
p.	Lambda cyhalothrin 2.5% & 5%	Active Ingredient	Annex A-1 of IS 14509-1997	1 % to 10 %
q.	Malathion 50%	Active Ingredient	Appendix A-0 of IS 1832-1978	15 % to 60 %
		Description	Clause 2.2.1 from Amendment 1 of IS 2567-1978	Qualitative
r.	Profenophos 50%	Active Ingredient	Annex A of IS 15238-2002	15 % to 60 %
		Description	Clause 3.2.1 of IS 15240-2002	Qualitative
s.	Profenophos 40% + Cypermethrin 4%	profenofos content & cypermethrin content	Annex A of IS 15238-2002 & Appendix A-2 from Amendment No. 3 of IS 12015-1987	15 % to 60 % 2 % to 6 %
		Description	Clause 3.2.1 of IS 15240-2002	Qualitative
t.	Pendimethalin 30%	Active Ingredient	Annex A of IS 12685-1989	10 % to 40 %
		Description	Clause 3.2.1 of IS 12751-1989	Qualitative
u.	Pretilachlor 50%	Active Ingredient	Annex A of IS 15158-2002	15 % to 60 %
		Description	Clause 3.2.1 of IS 15160-2002	Qualitative
v.	Quinalphos 25%	Active Ingredient	Appendix A FROM Amendment No.1 of IS 8072-1984	10 % to 30 %
		Description	Clause 2.2.1 of IS 8028-1987	Qualitative

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w.	Triazophos 40%	Active Ingredient	Annex a of IS 14936-2001	15 % to 50 %
		Description	Clause 3.2.1 of IS 14937-2001	Qualitative
x.	Isoprothiolane 40% EC	Active Ingredient	Annex A of IS 15163-2002	15 % to 50 %
		Description	Clause 3.2.1 of IS 15164-2002	Qualitative
		Other Tests for Emulsifiable Concentrates (EC)		
		Cold Test	Clause No. 13.1 of IS 6940-1982	Qualitative
		Flash Point	IS 1448 (Part 20): 1982	20 C to 540 C
		Emulsion Stability	Clause No. 13.3 of IS 6940-1982	0 to 5 ml
		Acidity	Clause No.13.5 of IS 6940-1982	0.01 % to 5 %
		Alkalinity	Clause No. 11.3 of IS 6940-1982	0.01 % to 5 %
		Specific Gravity	Clause No.5 of IS 6940-1982	0.880 g/ml to 1.18 g/ml
2.	Soluble Concentrate (SL)			
a.	Glyphosate 41%	Active Ingredient	Appendix a of IS 12502-1988	15 % to 50 %
b.	Imidacloprid 17.8%	Active Ingredient	Annex a of IS 15443-2004	5 % to 25 %
		Description	Clause 3.2.1 of IS 15335-2003	Qualitative
c.	Monocrotophos 36%	Active Ingredient	annex B of IS 8025-1990	10 % to 40 %
		Description	Clause 3.2.1 From Amendment No.1 of IS 8074-1990	Qualitative
d.	Paraquat Dichloride 24%	Active Ingredient	Appendix A of IS 8497-1982	10 % to 35 %
		Description	Clause 2.1 of IS 8497-1982	Qualitative

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e.	Phosphamidon 40%	Active Ingredient	Annex A of IS 6177-2005 (Second Revision)	15 % to 50 %
		Description	Clause 3.1 of IS 6177-2005	Qualitative
		Other Tests for Soluble Concentrate (SL)		
		Cold Test	Clause No13.1 of IS 6940-1982	Qualitative
		Flash Point	IS 1448 (Part 20): 1982	20 C to 720 C
		Acidity	Clause No.11.3 of IS 6940-1982	0.01 % to 5.0 %
		Alkalinity	Clause No.11.3 of IS 6940-1982	0.01 % to 5.0 %
		Specific Gravity	Clause No.5 of IS 6940-1982	0.80 g/ml to 1.18 g/ml
3.	Suspension Concentrate / Flowable Concentrate for Seed Treatment (SC / FC / FS)			
a.	Hexaconazole 5% SC	Active Ingredient	Annex A of IS: 14549-1998	2.5 % to 10 %
		Other Test s FOR SC / FC / FS		
		pH	IS 5741-1970	1 units to 14.0 units
		Specific Gravity	IS 6940-1982 CI No.5	0.90 g/ml to 1.64 g/ml
		Viscosity	CIPAC Vol F MT 22.1	250 poises cps to 1100 poises cps
		Suspensability	IS 6940-1982 CI No.11.2	25 % to 99 %
		Persistent Foam	CIPAC Vol F MT 47.1	0 to 50 ml
		Pourability	CIPAC Vol F MT 148	90 % to 100 %
		Wet Sieve Test	IS 6940-1982 CI No.11.1	75 % to 100 %
		Spontanity of Dispersion	CIPAC Vol F MT 160	Qualitative
		Alkalinity	IS 6940-1982 CI No. 11.3	0.01 % to 5.0 %
4.	Water Soluble Powder (SP)			
a.	Acephate 75%	Active Ingredient	Annex A of IS 12915-1990	20 % to 90 %
		Description	Clause 3.1 of IS 12916-1990	Qualitative
b.	Cartap Hydro Chloride 50%	Active Ingredient	Annex A-3 of IS 14159-1994	15 % to 60 %

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		Description	Clause 3.2 of IS 14183-1994	Qualitative
		Other Test for Water Soluble Powder (SP)		
		Material insoluble in water	IS 6940-1982 CI No13.9	0.05 % to 1.0 %
		pH	IS 5741-1970	1 Units to 14.0 Units
		Acidity / Alkalinity	IS 6940-1982 CI No11.3	0.01 % to 5.0 %
5.	Wettable Powder			
a.	Atrazine 50%	Active Ingredient	Annex B of IS 12932-1990	15 to 60 %
		Description	Clause 3.2 of IS 12931-1990	Qualitative
		Suspensability	Clause 11.2 of IS 6940-1982	25 to 95 %
b.	Carbendazim 50%	Active Ingredient	Annex B of IS 8445-1991	15 to 60 %
		Description	Clause 3.1 of IS 8446-1991	Qualitative
		Suspensability	Clause 11.2 of IS 6940-1982	25 to 95 %
c.	Copper Oxychloride 50%	Active Ingredient	Appendix A of IS 1506-1977	15 % to 60 %
		Description	Clause 2.1 of IS 1507-1977	Qualitative
		Suspensability	Clause 11.2 of IS 6940-1982	25 % to 95 %
d.	Carbendazim 12% + Mancozeb 63%	Carbendazim content & Mancozeb Content	Annex B of IS 8445-1991 & Appendix A of IS 8707-2013	5 % to 15 % 50 % to 70 %
		Description	Clause 3.1 of IS 8446-1991	Qualitative
		Suspensability	Clause 11.2 of IS 6940-1982	20 % to 90 %
g.	Mancozeb 75%	Active Ingredient	Appendix A of IS 8707:2013	20 % to 85 %

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		Description	Clause 3.2.1 of IS 8708-2006	Qualitative
		Suspensability	Clause 11.2 of IS 6940-1982	25 % to 95 %
h.	Mancozeb 64%+ Metalaxyl 8%	Mancozeb Content & Metalaxyl content	Annex B of IS 8707-2013 & Annex A of IS 13458-1992	20 % to 70 % 1 % to 15 %
		Description	Clause 3.2 of IS 13692-1993	Qualitative
		Suspensability	Clause 11.2 of IS 6940-1982	25 % to 100 %
i.	Clodinafop-Propargyl 15% WP	Description	Clause 1 of FAO Specification 683.225/WP (May 2008)	Qualitative
		Active Ingredient	683/WP/M/3, CIPAC Handbook, Note 1	5 % to 16.00 %
		Other Tests Wettable Powder		
		Sieving Requirement	IS 6940-1982 CI No.11.1	90 % to 100 %
		Wettability	IS 6940-1982 CI No. 11.4	1 s to 240 s
		Acidity	IS 6940-1982 CI No.11.3	0.01 % to 1.0 %
		Alkalinity	IS 6940-1982 CI No.11.3	0.01 % to 5.0 %
		pH	IS 5741-1970	1 Units to 14.0 Units
		Encapsulated Granule		
j.	Carbofuran 3% G	Active Ingredient	Appendix A of IS 9360-1980	1 % to 10 %
		Description	Clause 2.2.1 from Amendment No.1 of IS 9360-1980	Qualitative
k.	Cartap Hydro Chloride 4%	Active Ingredient	Annex A-3 of IS 14159-1994	1 % to 10 %
		Description	Clause 3.2.1 of IS 14184-1994	Qualitative
		Other Tests for Encapsulated Granule		
		Particle Size	IS 6940-1982 CI No. 12.1	90 % to 100 %

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		Dust	Clause 12.1 of IS 6940-1982	0.05 % to 100 %
		Attrition	IS 6940-1982 Cl No. 14.1.1	0.05 % to 100 %
		Water runoff test	IS 6940-1982 Cl No. 14.1.2	0.05 % to 10 %
		Moisture Content	IS 6940-1982 Cl No. 4	0.05 % to 5.0 %
		Acidity	IS 6940-1982 Cl No. 11.3	0.01 % to 5 %
		Technical Materials		
i.	Thiamethoxam	Description	Clause 3.1 of IS 15983-2013	Qualitative
		Active Ingredient	Annex A of IS 15983-2013	90 % to 100 %
m.	Isoprothiolane	Description	Clause 3.1 of IS 15163-2002	Qualitative
		Active Ingredient	Annex A or Annex B of IS 15163-2002	90 % to 100 %
n.	Acephate	Description	Clause 3.1 of IS 12915-1990	Qualitative
		Active Ingredient	Annex A of IS 12915-1990	90 % to 100 %
o.	Clodinafop-Propargyl	Description	Clause 1.0 of FAO specification 683.225/TC	Qualitative
		Active Ingredient	683/TC/M/3, CIPAC Handbook, Note 1)	90 % to 100 %
		Other Tests for Technical Materials		
		Material Insoluble in Water	Clause 9 of IS 6940-1982	0.01 % to 1.00 %
		Material Insoluble in Acetone	Clause 9 of IS 6940-1982	0.01 % to 1.00 %
		Acidity as H ₂ SO ₄	Clause 11.3 of IS 6940-1982	0.01 % to 4.00 %
		pH	IS 5741-1970	1 Units to 14.0 Units