

TOMICIDE™ ZPT- 50

1. Physic-Chemical Property

Assay	: 47.5~50.0%
Appearance	: White to pale white aqueous emulsion
Odor	: Slightly characteristic odor
pH	: 6.0 - 8.0
Zinc content	: 9.3-11.3%
Particle size	: Percentage not exceeding 1µm. Not less than 95% (D50 : Approximately 0.3~0.5µm)



2. Regulation

ENCS : Listed on, (5) — 3725、(9) — 1110

REACH : pre-registered

3. Packaging : UN3082 Class 9(P.G.3)

25kg/PEcan



2016/1/15

240kg/drum



1200kg/IBC



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4. Characteristic for TOMICIDE ZPT-50

【Fine Particle】

- ✓ ZPT particle size of TOMICIDE ZPT-50 is fine, it contribute long stability in shampoo formulation.

【Storage Stability 1; Long term(14Months)】

- ✓ TOMICIDE ZPT-50 has long term suspension stability. It contribute in good handling and longer storage stability at customer's place and warehouse.
- ✓ Storage stability for one (1) year has been proven under normal storage conditions
Light shaded place / temperature 0°C ~ 30°C

14 Months after at Room Temperature storage.



Tomicide ZPT-50



Competitor A



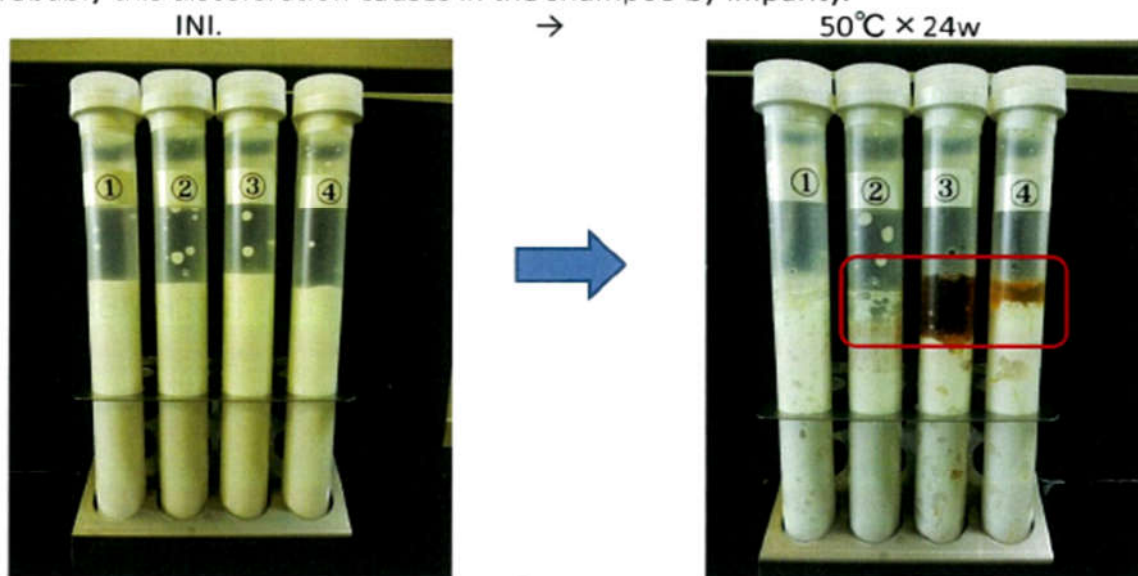
Competitor B

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【Storage Stability 2 ; High Temp. (50°C, 24weeks)】

- ✓ TOMICIDE ZPT-50 has high temp. suspension and color stability . It indicate that **TOMICIDE has fine particle and high purity.**
- ✓ Probably this discoloration causes in the shampoo by impurity.



①MCC(0.0/100.0mm) **Slightly Yellow**, ②Competitor C(15.0/100.0mm);**Yellow**,
 ③ Competitor B(22.0/117.0mm)**Dark Brown**, ④ Competitor A(8.0/110.0mm);**Brown**

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5.ZPT Antimicrobial Activity

MICROORGANISM	M.I.C mcg/ml(Minimal Inhibitory Concentration)
Staphylococcus aureus	6.3
E. Coli	12.5
Bacillus subtilis	6.3
Pityrosporum ovale	6.3
Tnchophyton mentogrophytes	12.5
M.furur	6.3 (vs. Climbazole >100)
C.lbicans	6.3 (vs. Climbazole >50)
M.S.aureus	6.3 (vs. Climbazole 100)
P.aeruginosa	6.3 (vs. Climbazole >100)

6.Toxic Information

Toxicity	DATA (The company's own testing data)
Acute Oral	LD50 RATS(MALE) 662mg/kg, LD50 RATS(FEMALE) 584mg/kg
Acute Dermal	3275mg/kg
Corrosivity / Irritation	No abnormality was observed at a skin corrsiveness test using rabbits.

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