

## Triameen® Y12D-30

### Guideline formulation with GLDA for surface disinfection

We are a leading producer of fatty amine based products. Triameen Y12D-30 represents a highly effective biocidal amine with broad spectrum microbiological properties. It is an aqueous dilution containing about 30% of N-(3-aminopropyl)-N-dodecylpropane-1,3- diamine (as "diamine", CAS 2372-82-9 in the review program of the Biocidal Product Regulation for disinfectant product types 2, 3, 4). It does not have an ionic charge like the quaternary ammonium compounds.

We also produce a wide array of chelating agents. Chelating agents are known to boost the efficacy of biocidal formulations by extracting metal ions from cell membranes of microorganisms, making them more vulnerable for biocidal attack. One of the best chelates to use for this purpose is GLDA (CAS 51981-21-6), a chelating agent with superior environmental and (eco)toxicological properties and sold under the name Dissolvine® GL-47-S.

This guideline formulation combines the outstanding properties of both products:

10%	Triameen Y12D-30
8%	Dissolvine GL-47-S
82%	water

### Specifically suitable for disinfection of food contact surfaces

- Usual concentrations are safe regarding indirect food contact
- On the "French positive list"
- No MRL (Maximum Residue Limit)

The formulation is highly effective versus different types of microorganisms, proven in appropriate EN standard tests

#### EN 14476

(Suspension test for virucidal efficacy)

Test strain: MVA (modified vaccinia virus Ankara, obligatory test organism to prove efficacy versus enveloped viruses);

Clean conditions: (0.3 g/l Albumin):

**Test passed at 2.5% in 5 minutes**

Test strain BCoV (bovine coronavirus, regarded as surrogate of members of coronaviridae family including MERS-CoV, SARS-CoV-1 and SARS-CoV-2);

Clean conditions (0.3 g/l Albumin):

**Test passed at 1.25% in 5 minutes**

#### EN 13697

(Surface test for bactericidal efficacy)

Test strains: Escherichia coli, Staphylococcus aureus, Enterococcus hirae, Pseudomonas aeruginosa;

Clean conditions: 0.3 g/l Albumin for all:

**Test passed at 1.5% in 5 minutes**

Clean conditions 8.5 g/l Skim milk for Pseudomonas aeruginosa:

**Test passed at 2.0% in 5 minutes**

#### EN 13697

(Surface test for yeasticidal efficacy)

Test strains: Candida albicans;

Clean conditions: 0.3 g/l Albumin:

**Test passed at 1.5% in 5 minutes**

#### EN 1276

(Suspension test for bactericidal efficacy)

Test strains: Escherichia coli, Staphylococcus aureus, Enterococcus hirae, Pseudomonas aeruginosa;

Clean conditions (0.3 g/l Albumin):

**Test passed at 0.4% in 5 minutes**

#### EN 1650

(Suspension test for yeasticidal efficacy)

Test strain: Candida albicans;

Clean conditions (0.3 g/l Albumin):

**Test passed at 0.3% in 15 minutes**

Phys-Chem Properties	As such	2% dilution*	1.3% dilution*	0.5% dilution*
Appearance at 20°C	clear liquid	clear liquid	clear liquid	clear liquid
Cloud point	55°C	>75°C	>75°C	>75°C
Density	1.02 g/cm	1.00 g/cm	1.00 g/cm	1.00 g/cm
pH	12.0	10.1	9.9	9.4
<b>Foam height**</b>				
immediately		157 mm	140 mm	128 mm
after 1 min		152 mm	138 mm	125 mm
after 5 min		145 mm	136 mm	121 mm
Surface Tension (Du Noüy)	31.0 mN/m	30.5 mN/m	30.6 mN/m	30.2 mN/m
CMC	17 mg/l			

\* Dilution is done in water 17° German Hardness (17dGH) = 300 mg/l as CaCO<sub>3</sub>

\*\* Foam height was measured in Vindan at 20°C

For more information and sample formulations contact us at [cleaning@nouryon.com](mailto:cleaning@nouryon.com).

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We are a global specialty chemicals leader. Markets worldwide rely on our essential chemistry in the manufacture of everyday products such as paper, plastics, building materials, food, pharmaceuticals, and personal care items. Building on our nearly 400-year history, the dedication of our 10,000 employees, and our shared commitment to business growth, strong financial performance, safety, sustainability, and innovation, we have established a world-class business and built strong partnerships with our customers.

We operate in over 80 countries around the world and our portfolio of industry-leading brands includes Eka, Dissolvine, Trigonox, and Berol.

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