

## Product Information

# Bardac-22<sup>0</sup>

The modern and safe biocide.

Broad spectrum of activity against both gram positive and gram negative bacteria.  
Fungicide and mildewcide.

Active against enveloped viruses (e.g. Hepatitis B, HIV).

High tolerance to hard water.

Maintains efficacy in presence of heavy organic soiling such as blood and protein.

Good surfactant and wetting properties.

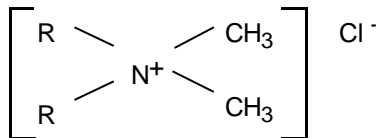
Worldwide acceptance based on registrations approval and official lists.

Toxicological and ecological documentation.

### 1. Active matter

N,N-Didecyl-N,N-dimethylammoniumchloride

Structural formula



R = C<sub>10</sub>H<sub>21</sub>

1.1	CAS No.:	7173-51-5
1.2	EINECS No.:	230-525-2
1.3	UN No.:	2920
1.4	INCI-Name	Didecyldimonium chloride

### 2. Specifications

2.1	Appearance at 20°C	clear liquid
2.2	Colour, Apha	100 max
2.3	pH 1% aqueous solution	6.5 - 8.0
2.4	Assay (Titration, MW 361)	50.0 - 52.0 %
2.5	free Amine + Amine HCl	1.0 % max
2.6	Ash	0.5 % max.
2.7	Water, KF	26.5 - 30.5 %
2.8	Isopropanol	19.5 - 24.5 %

### 3. Properties

3.1	Odour	aromatic, smell of IPA
3.2	Density	0.89 g/cm <sup>3</sup>
3.3	Viscosity (Brookfield, sp.1, 10 rpm, 20°C)	25 cps
3.4	Average Molecular weight	361
3.5	Flash Point (Abel Pensky cc)	29°C
3.6	Surface tension (1% aqueous solution)	27 mN/m
3.7	Ionogenicity	Cationic
3.8	Freeze thaw stability	good
3.9	Solubility	soluble in water
3.10	Compatibility	not compatible with anionics
3.11	Setting point	< - 30°C

## 4. Registrations

- 4.1 Europe European Inventory of Existing Chemical Substances (EINECS)
- 4.1.1 Switzerland As precaution against athlete's foot- October 19,1998 BAG-E Nr.1132  
BAG T- 23917 GK 4 – December 10,2001
- 4.1.2 Germany Approved with BgVV (former **bga**, Berlin) No. 6595.00.00 under the name of Azolat.  
Recorded in the XXXVIth recommendation of BgVV (former **bga**, Berlin)
- 4.1.3 France Specified in positive list for food and dairy industry.  
Approved as fungicide to prevent from mycoses (athlete's foot)
- 4.1.4 Netherlands Registered under No. 7086 N.
- 4.1.5 Spain Registered under No. 99-00-00318 for use in disinfectant cleaners for general purpose.  
Registered under No. 99-00-00318 HA for use in disinfectant cleaners for food industry.
- 4.2 U S A EPA registration No. 6836-18.  
Toxic Substances Control Act (TSCA) Inventory.  
FDA 21 CFR 178.1010 approval
- 4.3 Japan Japanese Handbook of Chemical Substances (MITI:9-1971).
- 4.4 Australia Australian Inventory of Chemical Substances (AICS).
- 4.5 Canada Canadian Core Domestic Substances List (CORE DSL).

## 5. Antimicrobial efficacy

### 5.1 BACTERIA

The bactericidal efficacy has been tested and shown according to the following test procedures:

DVG	(Germany)
DGHM	(Germany)
AFNOR	(France)
5-5-5-Test	(Netherlands)
Kelsey-Sykes	(UK)
AOAC	(USA)

### 5.2 FUNGI & YEAST

The fungicidal activity of BARDAC-22 has been demonstrated in presence of:

Aspergillus niger  
Penicillium glaucum  
Candida albicans  
Trichophyton mentagrophytes  
Microsporum canis  
Cladosporium cladosporoides  
Penicillium verrucosum  
Aspergillus versicolor

### 5.3 ALGAE

The algaestatic concentration of BARDAC-22 amounts to 0.5 ppm.  
The algaecidal concentration of BARDAC-22 was shown to be 1.0 ppm.

### 5.4 VIRUS

The virucidal efficacy of Bardac-22 has been demonstrated in presence of many enveloped viruses incl. Hepatitis B and HIV.

**6. Other investigations**

All raw materials used for the production of BARDAC-22 are of non animal origin.

**7. Use areas**

Disinfectant and disinfectant cleaner for hospitals, food industry, industrial kitchens and I+I applications.

Laundry disinfectant.

Fungicide (prevention from athlete's foot).

Wood treatment (sapstain and decay).

Water treatment (swimming pools, cooling towers etc).

Slimicide (paper industry).

Algaecide (walls, piles etc).

**8. Recommendations to formulate**

Incompatible with anionic detergents.

Synergistic effects in combination with aldehydes and complexing agents ( e.g. EDTA).

**9. Analytical procedures**

Titration (ISO 2871-2)

**10. Storage**

Product is supplied as follows:

Type:	iron drum	polyethylene drum	IBC-container	bulk
Weight net:	50 kgs	190 kgs	890 kgs	

It can be stored in the sealed original packaging over a period of two years.

**11. Regulatory information**

refer to MSDS

**12. Toxicological information**

refer to MSDS

**13. Ecological and ecotoxicological information**

refer to MSDS

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The information contained herein is believed to be correct as to the date hereof. However, no warranty is made, either expressed or implied, regarding its accuracy or the result to be obtained from the use of such information.