



microdx™-4 product information sheet



microdx™-4 is a mild organic disinfectant specifically formulated to conform to food-grade specifications.

disinfectant for the food and beverage industry

- hard surface disinfection
- process equipment
- clean in place [CIP]
- occupational health & safety hygiene

site of application examples

- breweries
- starch processing plants
- food processing plants
- abattoirs
- industrial kitchens & refectories
- fruit wash treatment facilities
- meat breaking plants
- sauce blenders
- canned food manufacturers

certifications

- SANS 636:2013: 10509/16606
- SANS 1853:2017: 10509/16608
- NRCS Act5GNR 529/263515/040/0827

advantages

- concentrated
- can be used cold
- non-corrosive to metals
- low-toxicity and non-mutagenic
- non-corrosive to surfaces at the prescribed dosage
- no rinse required in certain applications
- supports environmental sustainability
- opportunities for goodwill and publicity
- conforms to food grade specifications [SABS]
- reduces mould and yeasts microbial levels
- contains no chlorine, ethanol or aldehydes
- readily biodegradable
- cost-effective
- reduces effluent
- disrupts biofilm

typical surface disinfection

- band saws
- stainless steel tables
- cutting boards
- wash basins



typical surface disinfection

- knife sterilising units
- platform scales
- extractor fan housings
- walls
- manufacturing vessels
- stainless steel valves
- cat walks
- fridges
- transfer pumps
- drain covers
- conveyor belts
- dip baths

critical hygiene points

At a dilution of 20 millilitres microdx™-4 per litre, it is effective on equipment surfaces at critical hygiene points. Example: On pump inlets and outlets at sauce manufacturing plants.*

field trial hygiene level

Over a 30-day period the sauce production facility reached and maintained an accepted level of total hygiene.*

kill rate

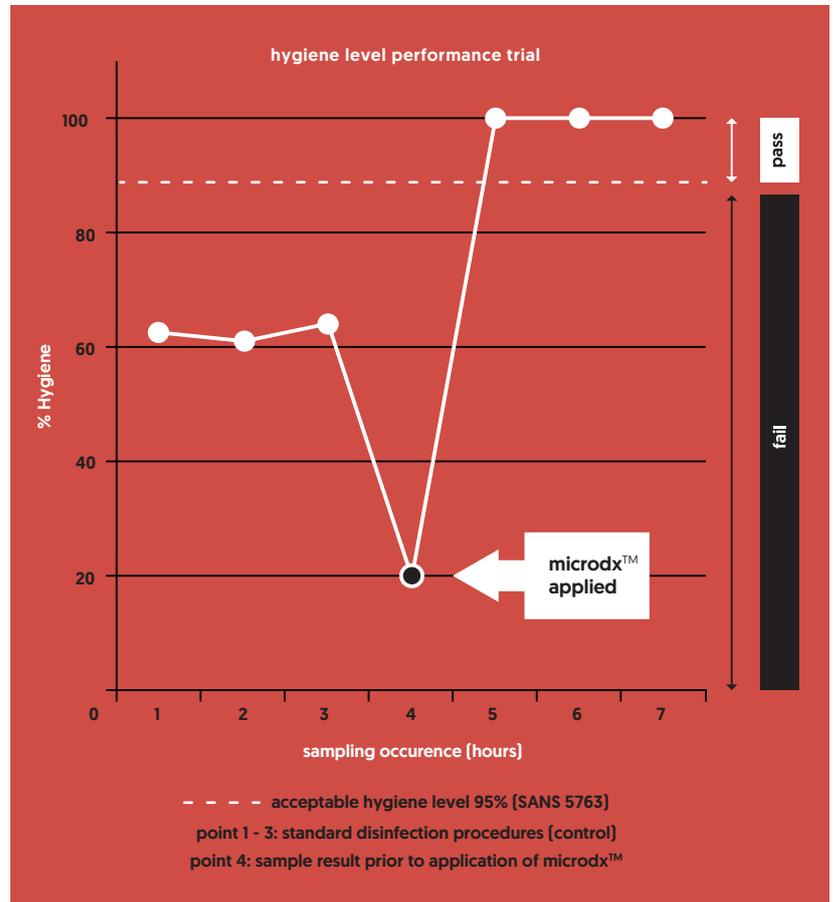
microdx™-4 at 20 millilitres per litre, will kill 99.9% of bacteria stipulated in SANS 636 within five minutes. In addition, at 20 millilitres per litre, microdx™-4 will meet the requirements stipulated in SANS 51276 with a kill rate of 99.999% within 5 minutes.

For non-rinse applications such as stainless-steel chutes, hygiene level was sustained for up to seven hours after application.*

In the adjacent graph illustrating the results the following features can be seen:

The first three samples represent the performance of the disinfectant regime used at the plant. The sample taken before application of microdx™-4 indicated that percentage hygiene had dropped to 20%.

The samples taken after the microdx™-4 product application all indicated a hygiene level above 95%, which is the desired hygiene pass rate.



*Field trial results: please contact Biodx directly for further information.

microdx™-4 efficacy

When tested using the tabulated test methods, the performance specifications were met at these dilutions:

Test method	Organism	Effective dilution for Conditions (millilitre/litre)	
		clean	dirty
SANS 51276	<i>Pseudomonas aeruginosa</i>	10	-
	<i>Enterococcus hirae</i>	10	-
	<i>Escherichia coli</i>	10	-
	<i>Staphylococcus aureus</i>	10	-
	<i>Campylobacter jejuni</i>	5	-
	<i>Lactobacillus plantarum</i>	5	-
	<i>Salmonella tranaroa</i>	10	-
	Lactic Acid Bacteria	10	-
	Coliforms	10	-
NEN-EN 1650	<i>Candida albicans</i>	10	20
NEN-EN 13623	<i>Legionella pneumophila</i>	2.5	N/A

test specifications

NEN-EN 1650:

Chemical disinfectants and antiseptics - quantitative suspension test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic, and institutional areas - test method and requirements [phase 2, step 1]

NEN-EN 13623:

Chemical disinfectants and antiseptics - quantitative suspension test for the evaluation of bactericidal activity against *Legionella* of chemical disinfectants for aqueous systems - test method and requirements [phase 2, step 1].

SANS 51276:

Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic, and institutional areas - test method and requirements [phase 2, step 1]

To achieve a minimum hygiene level of 75%, the below illustrative dilutions are recommended. [minimum contact period of 5 minutes required]

