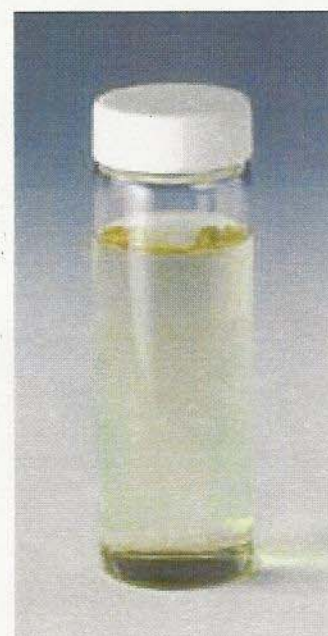


# Sugar Cane Extract MSX-245



## A 100% natural sugar cane extract creates Comfortable environments.

Sugar cane has been one of the best sources of sugar from the pre-Christian era in tropical and subtropical regions. It is known that 'Kokuto', which is Japanese brown sugar, has the effect of deodorizing fish and meat odors in cooking.

Shin Mitsui Sugar focuses on the deodorizing effect and then allows for good supply of the human-safe and high performance deodorizing material through the development of original manufacturing method.

Sugar cane extract MSX-245 is the 100% natural plant extract containing volatile components from sugar cane.

## The features of MSX-245

- 1) MSX-245 is the **natural and human-safe** material because of the natural product from sugar cane without the addition of chemical ingredients
- 2) MSX-245 has **high deodorizing performance** because of the synergy of sensuous and chemical deodorizing effect.
- 3) MSX-245 is **nonsticky type deodorizer** because of containing mainly volatile components from sugar cane.



# Deodorizing Mechanism of MSX-245

## Sensuous deodorizing effect

The sensuous deodorizing effect means that the aromatic sugarcane components mask odors.

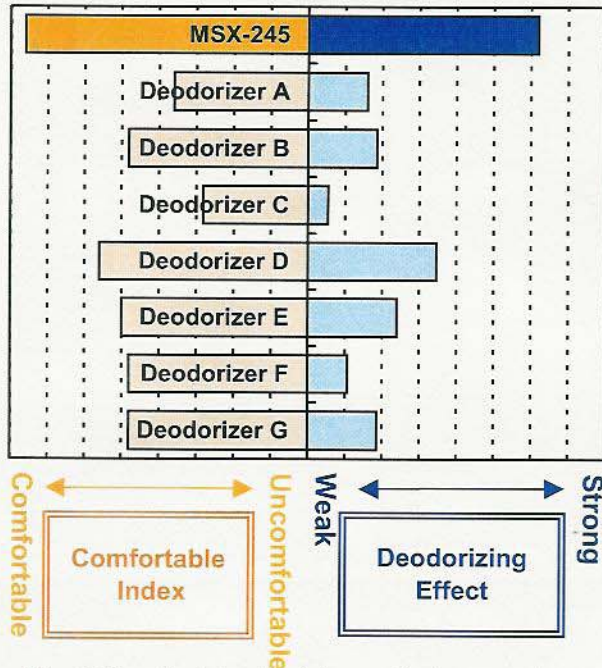


Fig.2 Deodorizing test for methylmercaptan (organoleptic test)

(Main ingredients of Deodorizers A-G)

- A : Green tea extract
- B : Green tea dry distillate
- C : Plants extracts mixture ( from over 10 species)
- D : Persimmon extract
- E : Apple extract
- F : Plants dry distillate ( from 35 species)
- G : Oak extract

Compared with other deodorizers, MSX-245 users can understand the strong deodorizing effect in practical use. Because MSX-245 has not only deodorizing effect, but High comfortable index.

## Chemical deodorizing effect

The chemical deodorizing effect means that the sugarcane components neutralize or decompose or non-volatilize odors.

Table 1. Deodorizing test detected using head-space gas detector tube analysis

	Initial Conc'n (ppm)	Deodorizing rate (%)	
		10 min	30 min
Trimethylamine	18	<b>57.1</b>	<b>66.7</b>
Ammonia	40	<b>71.4</b>	<b>80.0</b>

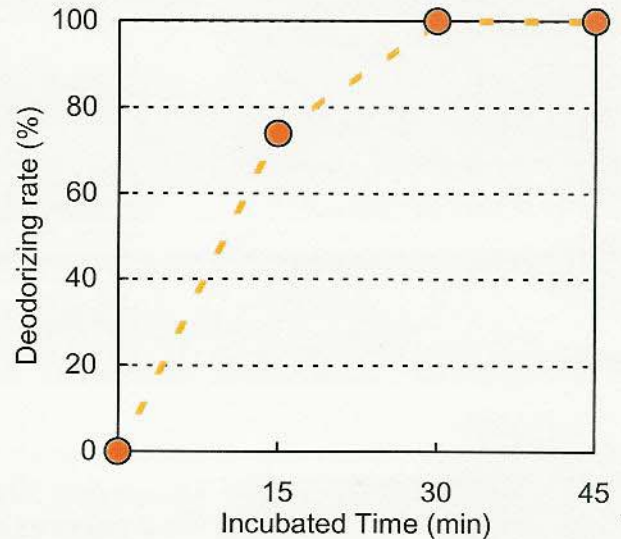
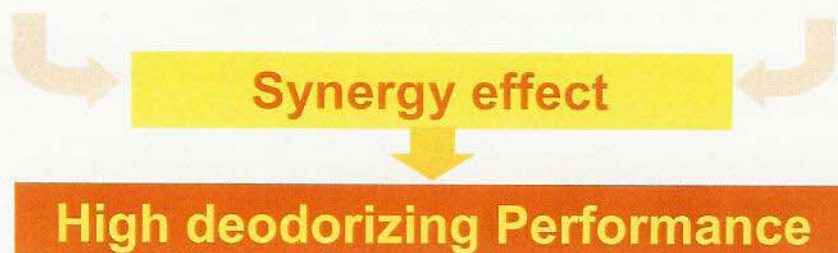


Fig.3 Deodorizing test for hydrogen sulfide using headspace gas chromatography analysis

MSX-245 eliminates the vaporizing nitrogenous odors (Trimethylamine, ammonia etc) , sulfurous odors (hydrogen sulfide, methylmercaptan etc) and other odors. These chemical effects allow for long-lasting deodorizing effects.





## Deodorizing tests for the odors trapped in fabrics

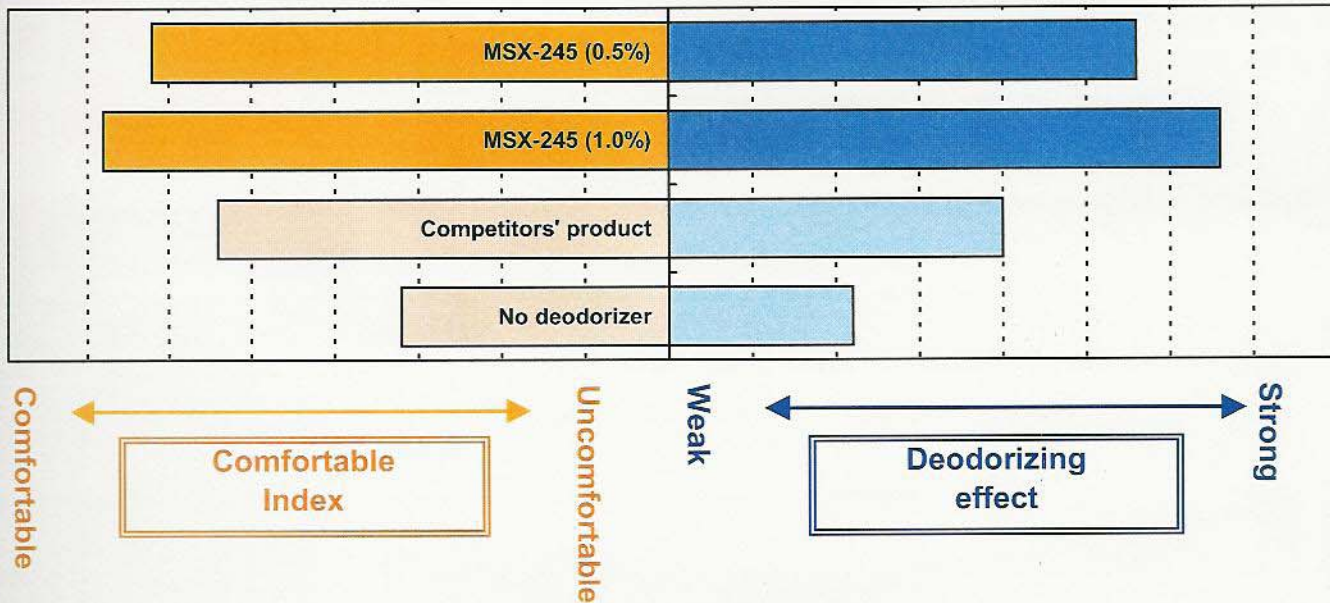


Fig.3 Deodorizing test for the smoking odors trapped in fabrics by organoleptic test.  
(Main ingredient of competitors' product is a cyclodextrin)

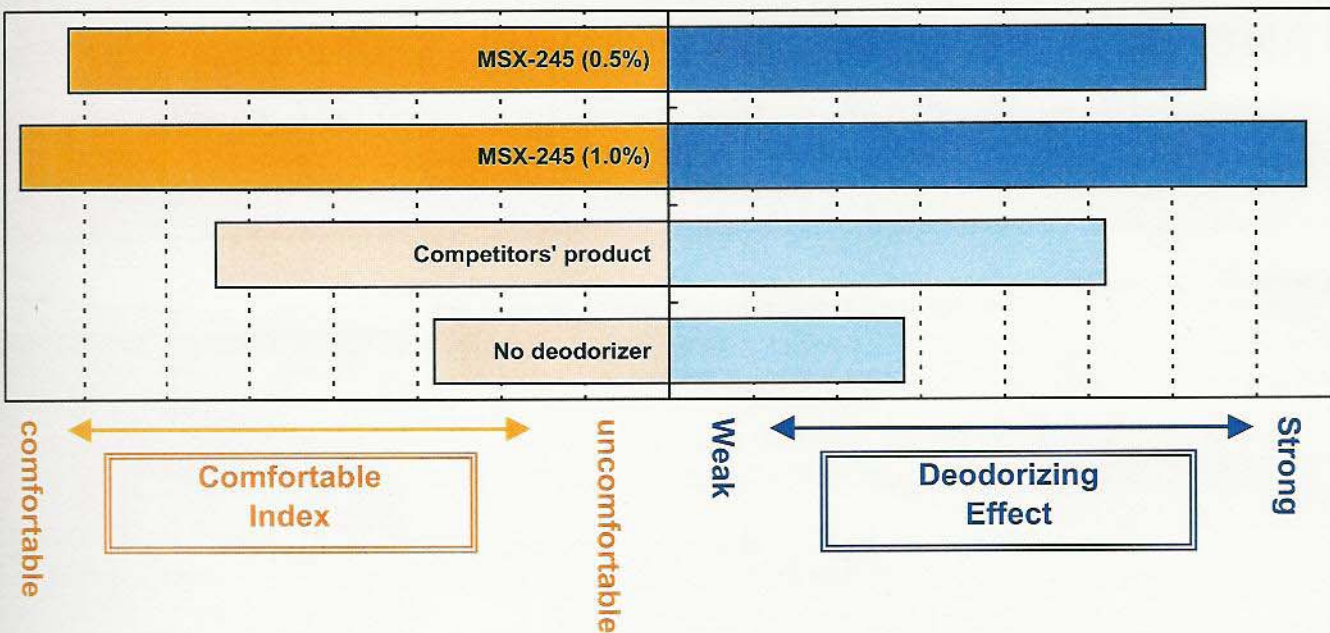


Fig.4 Deodorizing test for the cooking odors (barbecue) trapped in fabrics by organoleptic tests  
(Main ingredient of competitors' product is a cyclodextrin)

The odors of cigarettes and cooking odor were trapped in pieces of fabrics. Then MSX-245 and competitors' deodorizer were sprayed on fabrics trapping odors. After leaving the fabrics over night, the odors trapped in fabrics are evaluated by panels. As a result, MSX-245 could clean away the odors with little the scent from our product.

MSX-245 is transparent and almost colorless. MSX-245 keeps the fabrics non-sticky and doesn't cause the growth of molds on the fabrics.



## Dilution of MSX-245

When MSX-245 is diluted to 2-10 folds with water, the liquid is turbid. But the dilute to over 30-folds (proper concentrations in practical use) with water makes it transparent.

## Standard Specifications

Items	Specification	Test procedure
Appearance	MSX-245 is light yellow liquid and has distinctive aroma	visual check and sensory test
pH	7.0±1.0	glass electrode meter
Specific gravity (15°C/15°C)	0.944±0.010	Standard specific gravity meter
Bacteria	Less than 50 / mL	plate count agar method
Yeast	Less than 10 / mL	plate count agar method
Mold	Less than 10 / mL	plate count agar method
Coliform	negative	BGLB method

### Storage conditions

Please avoid storage in locations subject to high temperature (over 30°C), high humidity and direct sunlight.

### Packaging

Net Weight : 18kg / box  
Inner package : Trilaminar Nylon bag  
Outer package : Fibreboard box

### Precaution

Please read the MSDS of this product before use.



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