Detergency test

Kaken Test Center Data

Sample	Detergency※	
	Average evaluation score	Judgment
Stock solution	2.00	Pass

※Criteria for evaluation −2 : Significantly inferior −1 : Slightly inferior 0 : Comparable
+1 : Slightly superior +2 : Significantly superior
→ Most highly evaluated, "+2: Significantly superior" to general cleaning agents

Antiviral test

1. Influenza virus (H1N1)

Kaken Test Center Data

Sample	Inactivation test (EID_{50}/0.1ml)			
	Start	30 seconds later	5 minutes later	30 minutes later
Stock solution 10-fold diluted	$>10^{4.5}$	<1	Not detected	Not detected

→ Almost completely inactivated 30 seconds later and completely inactivated 5 minutes later

2. Norovirus

Japan Food Research Laboratories Data

Sample	Infectious dose ($logTCID_{50}$/ml)			
	Start	30 seconds later	5 minutes later	30 minutes later
Stock solution 6-fold diluted	8.7	<3.5	<3.5	<3.5

<3.5 : Not detected
→No viral infectivity detected 30 seconds later

Antibacterial test

1. E. coli O-157: H7

Kaken Test Center Data

Sample	Viable cell count/ml			Sterilization rate (%) ※	
	Initial bacterial count	5 minutes later	30 minutes later	5 minutes later	30 minutes later
Stock solution	—	8.5E+04	1.5E+00	43.3	≧99.9
Distilled water (control)	1.5E+05	1.9E+05	1.8E+05	(— 26.7)	(— 20.0)

2. Staphylococcus aureus

Kaken Test Center Data

Sample	Viable cell count/ml			Sterilization rate (%) ※	
	Initial bacterial count	5 minutes later	30 minutes later	5 minutes later	30 minutes later
Stock solution	—	2.7E+02	3.0E+00	99.7	≧99.9
Distilled water (control)	8.7E+04	8.1E+04	7.3E+04	6.9	16.1

3. Salmonella

Kaken Test Center Data

Sample	Viable cell count/ml			Sterilization rate (%) ※	
	Initial bacterial count	5 minutes later	30 minutes later	5 minutes later	30 minutes later
Stock solution	—	4.6E+04	7.0E+00	89.8	≧99.9
Distilled water (control)	4.5E+05	4.3E+05	5.3E+05	4.4	(— 17.8)

※Sterilization rate = {(A-B)/A}x100
A: Initial bacterial count as a control
B: Viable cell count in a sample

Deodorization test

1. Ammonia gas removal performance

Kaken Test Center Data

Sample	Ammonia concentration (ppm)	
	Initial concentration	2 hours later
Stock solution	100	4.8
Blank (blank test)	100	71

→Decrease rate: 93%

2. Trimethylamine gas removal performance

Kaken Test Center Data

Sample	Trimethylamine concentration (PPM)	
	Initial concentration	2 hours later
Stock solution	28	6.8
Blank (blank test)	28	26

→Decrease rate: 74%

3. Hydrogen sulfide gas removal performance

Kaken Test Center Data

Sample	Hydrogen sulfide concentration (PPM)	
	Initial concentration	2 hours later
Stock solution	4.0	0.5
Blank (blank test)	4.0	3.9

→Decrease rate: 87%

Antistatic test

【Sample】Stock solution 40-fold diluted

Kaken Test Center Data

Test items			Nylon	Cotton	Polyester
Half-life (sec)			< 1.0		
Frictional charge voltage (V)	Cotton	Vertical	560	25	13
		Horizontal	450	29	12
	Wool	Vertical	490	160	38
		Horizontal	210	150	37

Test methods: JIS L 1094-1997 Half-life determination
JIS L 1094-1997 Frictional charge voltage measurement
→ Half-life after charging [time until charge voltage decreases by half]: ≤1 sec
→ Frictional charge voltage for nylon: 560V
※Reference standards: Half-life: ≤ 10 sec/Frictional charge voltage: ≤ 3,000V
Half-life: ≤ 30 sec/Frictional charge voltage: ≤1,500V

Antifungal test

Kaken Test Center Data

Sample	Resistance to fungi※	
	2 weeks	4 weeks
Stock solution	0	0

Test method: JIS Z 29112000 (dry type)
Note)※ 0: No hyphal growth at the site of inoculation in a sample or test piece.
1: The area of hyphal growth at the site of inoculation in a sample or test piece accounts for less than one-third of the total area.
2: The area of hyphal growth at the site of inoculation in a sample or test piece accounts for more than one-third of the total area.
→ No fungal growth observed even 4 weeks later.
● The causative substances of soy allergy are generally accumulated in proteins.
During oil production, the causative proteins are removed from soybean fatty acids as raw materials.