

SINGAPORE STANDARD

**SS 327 : 1988**

(ICS 71.100.40)

SPECIFICATION FOR

# **Waterless hand cleaner**

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SPECIFICATION FOR WATERLESS HAND CLEANER

FOREWORD

This specification was drawn up by the Technical Committee on Waterless Hand Cleaner under the authority of the Chemical Product Standards Committee.

In preparing this specification, reference was made to the following overseas publications:

- |    |   |   |
|----|---|---|
| 1. | AS 1223 – 1982                                  | Safety requirements for industrial hand cleaners (petroleum solvent type) |
| 2. | ASTM D4010 – 83                                 | Waterless hand cleaner  |
| 3. | CGSB 2-GP-16Ma,<br>August 1983                  | Cleaner, hand, waterless  |
| 4. | Federal Specification<br>P-H-31E, February 1975 | Hand cleaner, waterless (duplicating ink and grease)                      |
| 5. | SABS 1330 – 1981                                | Waterless hand cleaners   |

Acknowledgement is made for the use of information from the above references.

NOTE

1. Singapore Standards are subject to periodical review to keep abreast of technological changes and new technical developments. The revisions of Singapore Standards are announced through the issue either of amendment slips or of revised editions.
2. Compliance with a Singapore Standard does not exempt users from legal obligations.

## 1. SCOPE

This standard specifies a waterless hand cleaner that is used to clean grease-based soils from the hands and is removed by wiping or water rinse.

## 2. REQUIREMENTS

**2.1 General.** The hand cleaner shall be a homogeneous product in gel, cream or paste form (as specified by the purchaser), containing low-odour aliphatic hydrocarbons, water, emulsifier, suitable humectant, fragrances and skin conditioners. It may be coloured and may contain synthetic detergents which shall be biodegradable.

The hand cleaner shall be readily spread on the hands and easily wiped off or rinsed off with water without leaving any sticky and undesirable residue on the skin. It shall not leave strong-smelling or offensive odours on the hands nor leave the skin excessively dry or greasy after use.

**2.2 Prohibited Ingredients.** It shall not contain halogenated hydrocarbon solvents, free ammonia or free alkali, grit or abrasives or other substances that may cause irritation to the normal skin. Materials which are included for antibacterial or cosmetic purposes shall be reduced to the minimum and all components with known or potential toxic, allergenic or carcinogenic properties shall be excluded.

**2.3 Chemical And Physical Characteristics.** The waterless hand cleaner shall conform to the requirements given in the Table below:

Characteristic	Requirement	Method of Test in Appendix
Aliphatic hydrocarbon % v/m, maximum	35	A
pH, 5% solution m/v	6 - 9	B
Miscibility with water	Shall form a homogeneous emulsion or solution	B
Thermal stability	Shall remain stable, smooth textured and show no significant separation or darkening of colour	C
Flash point °C, minimum	40	Method E of SS 86*
Grit and abrasives	Shall not scratch microscopic slide glass	D

\* Singapore Standard 86, 'Methods of Sampling and Testing Bitumens'.