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INDUSTRIAL HAND CLEANERS (SOLVENT TYPE)



STANDARDS ASSOCIATION OF AUSTRALIA

Incorporated by Royal Charter



THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Chemical Specialties Manufacturers Association
Australian Medical Association
Bureau of Steel Manufacturers of Australia
Confederation of Australian Industry
Department of Health (Commonwealth)
Department of Health, Queensland
Health Commission of New South Wales
Health Commission of Victoria
Health Services Department, Tasmania
Public Health Department, Western Australia
Railways of Australia Committee
Society of Automotive Engineers Australasia

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AUSTRALIAN STANDARD

INDUSTRIAL HAND CLEANERS (SOLVENT TYPE)

AS 1223—1981

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PREFACE

This edition of this standard was prepared by the Association's Committee on Hand Cleansers at the request of the Safety Standards Board, to supersede the 1973 edition.

It covers solvent type preparations for the removal of grease and dirt from the hands.

The standard describes the hand cleaner in general terms, specifying the composition and materials which may be used, together with the storage life and requirements for packing.

Appendices set out the methods for determination of solvent content, free alkali content, determination of miscibility with water and pH value, and determination of the thermal stability of the hand cleaners.

This edition of the standard includes technical and editorial amendments identified as necessary during the application of the 1973 edition.

Solvent-containing cleaners represent by far the bulk of the skin cleaners used in industry and the standard has been revised to provide purchasers and users with the current requirements applicable to hand cleaners of the solvent type.

It should be noted that over-zealous use of hand cleaners could cause dryness of the skin and may lead to defatting. Where the use of the hand cleaner is above normal, the application of an emollient cream is recommended.

This standard requires reference to the following standards:

- AS 1792 Methods for Determining the Biodegradability of Surfactants
- ASTM D 86 Method for Distillation of Petroleum Products
- ASTM D 1172 Test method for pH of Aqueous Solutions of Soaps and Detergents
- ASTM D 1319 Test method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard for INDUSTRIAL HAND CLEANERS (SOLVENT TYPE)

1 SCOPE. This standard specifies requirements for industrial hand cleaners of the petroleum solvent type which are intended for the removal of dirt, grease and other soils from the hands.

2 DESCRIPTION AND GENERAL CHARACTERISTICS. The hand cleaner shall be a gel, liquid or cream of homogeneous texture and shall consist essentially of surface active agents, solvents and water.

The hand cleaner shall break and spread easily on the skin, be non-sticky, and be readily rinsed off with water without leaving any oily residue or deposit on the hands.

3 MATERIALS.

3.1 General. The hand cleaner shall not contain materials which are known to be irritating or abrasive to the normal skin. Materials which are included for antibacterial or cosmetic purposes shall be reduced to the minimum and all components should be chosen with due regard to their known or potential toxic, allergenic or carcinogenic properties.

3.2 Surface Active Agents. The surface active agent shall be an anionic amphoteric or non-ionic material or a blend thereof and shall be classed as biodegradable when tested in accordance with AS 1792.

Any soap present shall be the product of the reaction between fatty acids containing predominantly 16 carbon atoms or more, and sodium, potassium or ammonium hydroxides or alkanolamines.

3.3 Solvent. The petroleum distillate solvent, shall comply with the following requirements:

- Initial boiling-point of 150°C minimum. (See ASTM D 86.)
- Not more than 10 percent aromatic hydrocarbons. (See ASTM D 1319.)

4 CHEMICAL CHARACTERISTICS.

4.1 Solvent Content. When determined in accordance with Appendix A, the petroleum solvent content shall be not more than 400 mL/kg nor less than 100 mL/kg.

4.2 Free Alkali. When determined in accordance with Appendix B, the free alkali content shall not be more than 2 g/kg calculated as sodium hydroxide.

4.3 Miscibility With Water and pH. When tested in accordance with Appendix C, the material shall form a homogeneous emulsion or solution the pH of which shall be not less than 4.5 nor more than 10.5.

4.4 Thermal Stability. When tested in accordance with Appendix D, the material shall show neither separation of solvent nor change in consistency.

5 STORAGE LIFE. The hand cleaner, when stored in its original sealed container at normal ambient temperatures, shall retain the properties specified in this standard for a period of not less than 6 months from the date of manufacture.

6 PACKAGING. The hand cleaner shall be packed in sound, clean, dry containers with air-tight closures. The containers shall be impermeable and there shall not be any reaction between the containers and the hand cleaner.

7 LABELLING. The hand cleaner container shall be labelled with the following information:

- Instructions for use.
- The mass or volume of the contents, as appropriate.
- The date of manufacture or the batch number.

8 TECHNICAL INFORMATION. A technical data sheet listing the purposes for which the hand cleaner may be used and the general chemical and physical characteristics of the hand cleaner shall be made available on request.

9 MARKING. The following information shall be marked on the containers of hand cleaners or on labels securely attached thereto:

- The manufacturer's name, trade name or mark.
- The information required in accordance with Clause 7.

NOTE: Manufacturers who place the number of this Australian standard on containers of industrial hand cleaner, packaging or literature related thereto should ensure that the industrial hand cleaner is manufactured to comply with the standard.

Attention is particularly drawn to the scheme for independent assurance provided by the AS Mark which is a registered certification trademark owned by the Standards Association of Australia. The presence of the AS Mark on or in relation to a product is an assurance that the goods have been produced under a system of supervision, control and testing applied during manufacture and including periodical inspections at the manufacturer's works in accordance with the certification mark scheme of the SAA.

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