SINGAPORE STANDARD

SS 532 : 2007

(ICS 13.220; 13.300)

CODE OF PRACTICE FOR

The storage of flammable liquids

(Formerly CP 40 : 1987)

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Contents

Page

Foreword 7

CLAUSES

1 Scope 9
2 Normative references 9
3 Definitions 10
4 Minor storage 18
5 General requirements for package and tank storage 22
6 Package storage and handling 28
7 Storage in tanks 43
8 Piping and tank auxiliaries 60
9 Operations 63
10 Fire fighting facilities 69

ANNEX

A Tank venting 79

TABLES

1 Hazard precautionary statement 14
2 Minor storage 19
3 Illustration of flammable liquids labelling 27
4 Maximum allowable quantity (MAQ) in m^3 for groups of packages 33
5 Separation distances for groups to protected place (D1)/on-site facility (D2) 34
6 Separation distances for groups to boundary (D3)/fixed ignition sources (S) 34
7 Size of indoor package store based on type of fire protection system 37
8 Separation distances for Category 1, 2, 3 and 4 storage tank capacity more than 3500 m^3 51
9 Separation distances for storage tank capacity less than 3500 m^3 54
10 Foam systems 73
11 Number of fire extinguishers 77
A1 Thermal venting requirements 80
A2 Emergency venting capacity 81
A3 Diameters of free circular openings 82

Page

FIGURES

1	Illustration of site definitions	17
2	Separation distances between minor storages	21
3	Transit storage	24
4(a)	Typical package stores – External detached store without wall	29
4(b)	Typical package stores – External detached store with wall(s)	29
4(c)	Typical package stores – External attached store sharing wall(s)	30
4(d)	Typical package stores – Internal store	30
4(e)	Typical package stores – Fire separated stores	30
5(a)	Stores having opposite external sides open	39
5(b)	Stores having one external side open	39
5(c)	Stores having one external wall with natural vents	39
5(d)	Stores having one external side open and vents in adjacent or opposite external walls	40
5(e)	A store having vents in one pair of opposite external walls	40
6	Illustration of terms relating to various tank locations for all categories	43
7	Illustration of terms relating to various tanks locations for category 4 flammable liquids only	44
8	Bund location limits	53
9	Use of fire wall for reduction of separation distances	55
10(a)	Acceptable layout	55
10(b)	Unacceptable layout	55

Foreword

This Singapore Standard Code of Practice was prepared by the Technical Committee on Petroleum and its Products under the direction of the Chemical Standards Committee. It is a revision of CP 40 which has been renumbered as SS 532.

The standard deals with flammable liquids, as classified in the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The standard covers flammable liquids of Category 1, 2, 3 and 4 as classified in GHS. In addition, flash point of up to 150 °C is covered in the standard as required by the local regulatory authority. The objective of the standard is to provide guidance and best practices for the safety of persons and the prevention of damage to property when storing or handling flammable liquids. It covers storage and handling of flammable liquids in installations but does not include their transportation.

The revision of this standard includes the best practices and philosophies developed since the last edition, such as the 'Guidelines on storage of flammable and combustible liquids in aboveground atmospheric storage tanks' by Oil and Petrochemical Industry Technical and Safety Committee (OPITSC) and the former Singapore Joint Civil Defence Forces (now known as Singapore Civil Defence Force). The new edition also aligns with the current regulatory authorities, emergency response services, environmental requirements and local publications/standards as well as United Nations guidelines on GHS.

This standard does not override any statutory requirements but should be used in conjunction with such requirements. At the time of publication, this standard is expected to be used by the Singapore Civil Defence Force as part of the fire safety requirements.

In preparing this Singapore Standard, reference was made to the following publications:

1.	Australian Standard AS 1940 : 2004, incorporating its amendment No. 1	The storage and handling of flammable and combustible liquids
2.	South African National Standard SANS 10089-1 : 2003	The petroleum industry, Part 1 : Storage and distribution of petroleum products in above-ground bulk installations
3.	National Fire Protection Association NFPA No. 30 : 2003 Edition	Flammable and combustible liquids code
4.	Institute of Petroleum	Model code of safety practice in the petroleum industry, Part 3 – Refining safety code

5. 'Guidelines on storage of flammable & combustible liquids in aboveground atmospheric storage tanks', 1991 edition by Oil and Petrochemical Industry Technical & Safety Committee (OPITSC) and the former Singapore Joint Civil Defence Forces

6. 'Globally Harmonized System of Classification and Labelling of Chemicals (GHS)', first revised edition, 2005 by United Nations

Acknowledgement is made for the use of information from these publications.

NOTE

1. *Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The revisions of Singapore Standards are announced through the issue of either amendment slips or revised editions.*

2. *Compliance with a Singapore Standard does not exempt users from legal obligations.*

Code of practice for the storage of flammable liquids

1 Scope

This Singapore Standard sets out requirements and recommendations for the safe storage and storage handling of flammable liquids, as classified in the United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), listed in the Chapter of Flammable Liquids. In addition, the standard also covers liquids of flash point up to 150 °C.

This standard does not apply to the following:

a) Shipboard installations;

b) Any storage that is mobile (fuel tanks and tankers, ISO tanks and tankers), except as defined for transit storage purpose;

c) Any plant or equipment in which liquid is processed, together with any vessels which form an integral part of the processing plant or equipment;

d) Bitumen and its mixtures prepared for road-making;

e) Flammable liquids stored in tank exceeding 175 millibar above atmospheric pressure; and

f) Liquefied gases that are maintained in the liquid phase for storage by means of pressure or refrigeration.