SS 586-3:2022
(ICS 13.300; 71.020)

SINGAPORE STANDARD

Specification for hazard communication for hazardous chemicals and dangerous goods

– Part 3: Preparation of safety data sheets (SDSs)

Singapore Standards Council

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Foreword

This Singapore Standard was prepared by the Working Group on Review of SS 586 set up by the Technical Committee on Chemicals and Processes under the purview of the Chemical Standards Committee.

It is a revision of SS 586-3:2008(2014) which is aligned with the Globally Harmonised System of Classification and Labelling of Chemicals (UN GHS, Fourth revised edition). This edition is aligned with the UN GHS, Seventh revised edition.

Examples found within the document have been revised based on updated requirements found in revision 7 of the UN GHS. This edition includes a new informative Annex which provides guidance in describing and determining the empirical data of the substance or mixture required in Section 9 of SDS on physical and chemical properties.

SS 586, "Specification for hazard communication for hazardous chemicals and dangerous goods" consists of the following three parts which are complementary to one another:

- Part 1: Transport and storage of dangerous goods;
- Part 2: Globally harmonised system of classification and labelling of chemicals – Singapore's adaptations; and
- Part 3: Preparation of safety data sheets (SDSs).

SS 586 Part 1 sets out provisions on the classification of dangerous goods by the types of hazards they present. It also provides information on standard hazard communication dangerous goods labels. This part applies to the storage and transportation of dangerous goods, in bulk or packages, by road which includes carriages in bulk, tank-vehicles, vehicles with demountable tanks.

SS 586 Parts 2 and 3 set out provisions for the implementation of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Preparation of Safety Data Sheets (SDSs). GHS is an international system for the classification of chemicals by the types of hazards they present. It provides information on standard hazard communication elements including labels and SDSs.

The GHS helps to ensure that information on physical, health and environmental hazards from chemicals is made available, in order to enhance the protection of human health and the environment during the handling, transport, and use of these chemicals. The GHS also provides for the global harmonisation of rules and regulations on the classification, labelling and SDSs of chemicals.

It is presupposed that in the course of their work, users will comply with all relevant regulatory and statutory requirements. Some examples of relevant regulations and acts are listed in the Bibliography. The Singapore Standards Council and Enterprise Singapore will not be responsible for identifying all of such legal obligations

For cases in which UN GHS is mentioned in this document, it is to be read as "UN GHS, Seventh revised edition".

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

1. Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Seventh revised edition
2. Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Eighth revised edition

Permission has also been sought from the following organisations for the reproduction and adaptation of materials from their publications into this standard:

1. European Chemicals Agency

   Example of magnesium distearate in 7.2.4 from C&L Inventory, EC 209-150-3

2. Japan Chemical Database Ltd

   Annex C from the SDS for Epichlorohydrin provided by Japan Chemical Database Ltd

3. Office for Official Publications of the European Communities

   Annex A from Part B – Lexicon guide for establishing the alternative designations (generic names) of Annex VI – Confidentiality for the chemical identity of a substance, of Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999

4. United Nations

   Annex D and Annex E from Globally Harmonised System of Classification and Labelling of Chemicals (GHS), Seventh revised edition

5. United States Environmental Protection Agency

   Annex A.4.2 from Guidance for creating generic names for confidential chemical substance identity reporting under the toxic substances control act, EPA 743B18001, June 2018

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

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "mature standards". Mature standards will not be subject to further review unless there are requests to review such standards.*

2. *An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*

3. *Compliance with a SS or TR does not exempt users from any legal obligations.*

Specification for hazard communication for hazardous chemicals and dangerous goods – Part 3: Preparation of safety data sheets (SDSs)

0 Introduction

The standard covers the compilation of an SDS according to a standard format and ensures it contains adequate and accurate health and safety information that helps safeguard the life and health of users. This standard contains requirements recommended by national relevant authorities.

An SDS provides comprehensive information about a chemical substance or mixture for use in workplace chemical control regulatory frameworks. Both employers and employees use it as a source of information about chemical hazards and their safety precautions. The information acts as a reference source for the management of hazardous chemicals in the workplace. An SDS is product-related and usually does not provide specific information that is relevant to any given workplace where the product is used. However, where products have specialised end uses, the information in the SDS may be more workplace-specific. The information therefore enables the employer to develop an active programme for employee protection measures, including training, which is specific to the individual workplace; and to consider any measures which may be necessary to protect the environment.

In addition, an SDS provides an important source of information for other target audiences in the GHS. So certain elements of information may be used by those involved in the transport of dangerous goods, emergency responders, and those involved in the professional use of pesticides, and consumers. However, these audiences receive additional information from a variety of other sources such as the United Nations' Recommendations on the transport of dangerous goods, and package inserts for consumers. The introduction of a harmonised labelling system therefore, is not intended to affect the primary use of an SDS, which is for workplace users.

The SDS for a substance or preparation should cover all users.

The SDS only constitutes part of the information necessary to establish a health, safety and environmental programme. Certain information (e.g. product specification, technical data, product composition, etc.) is made available upon request. Hence, it is not used as a substitute for expert advice on the use of a substance or preparation. Expert advice may include the development of better control measures such as engineering controls and safe handling practices.

1 Scope

This Singapore Standard sets out provisions for the preparation, review, reissue and use of an SDS. It covers the responsibility of suppliers and manufacturers of chemical substances and preparations in the compilation and completion of an SDS. Users of chemicals can make use of the information in the SDS to prevent exposure to chemicals in the workplace and community.

Pharmaceuticals, food additives, cosmetics, and pesticide residues in food are not covered by the GHS in terms of labelling at the point of intentional intake. However, these types of chemicals are covered where workers can be exposed at work, and if there is potential exposure during the transportation of chemicals.

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

SS 586-2	Specification for hazard communication for hazardous chemicals and dangerous goods − Part 2: Globally harmonised system of classification and labelling of chemicals – Singapore's adaptations