

Dalton

INTERNATIONAL LTD

HazBox® Container Stores for Class 3 Flammable liquids



DALTON INTERNATIONAL LIMITED

Physical Address: Unit 6, 23 Ash Road, Wiri, Auckland, 2104

Postal Address: PO Box 259041, Botany, Auckland, 2163

Tel: 0800 323 223 or +64 09 263 3142 | Web: www.daltoninternational.co.nz | Email: enquiries@dilnz.co.nz

IMPORTANT INFORMATION TO KNOW BEFORE YOU BUY

INTRODUCTION



HazBox Hazardous Goods Storage Containers are an excellent solution for your storage of class 3 flammable and combustible liquids. However, before you purchase it's important to understand the requirements of these modified freight containers as set out in AS1940 "The storage and handling of flammable and combustible liquids".

Below is a summary of the key points from the standard that you need to consider. For a full explanation we recommend you obtain a copy of the AS1940 standard or give us a call on 0800 323 223.

USE OF FREIGHT CONTAINERS

AS1940 sets out that you CANNOT use freight containers for the storage of flammable and combustible liquids in packages UNLESS they have been modified to comply with the design requirements set out in sections 3 and 4 of the standard relating to separation, segregation, ventilation and spillage containment.

SEPARATION DISTANCES

Storages shall be separated from boundaries, ignition sources and protected places by the minimum distances relevant to each type of storage.

TYPE OF STORAGE	MINIMUM DISTANCE
Storage area for closed packages of flammable liquids	3m
Area where packages of flammable liquids are opened (e.g. for decanting, mixing, filling)	8m



IMPORTANT INFORMATION TO KNOW BEFORE YOU BUY

MINIMUM DISTANCE TO BOUNDARY

A store for packages of flammable or combustible liquids shall be located in accordance with the following requirements:

- The minimum separation distance to a protected place (other than an on-site protected place) shall be as given in Table 4.1.
- The minimum separation distance to any on-site protected place shall be as given in Table 4.1, but need not exceed—
 - ▶ 15 m for flammable liquids; or
 - ▶ 7.5 m for C1 liquids; or
 - ▶ 3 m for C2 liquids.

TABLE 4.1
SEPARATION DISTANCES FROM PACKAGE STORES TO PROTECTED PLACES

Maximum capacity of liquid storage, m ³ (kL)				Minimum distance m
Class of liquid stored				
Flammable liquid		Combustible liquid		
PG I, PG II	PG III	C1	C2	
0.1	0.5	2.5	5	Unrestricted
1	4	10	20	3
2	8	20	40	4
4	16	40	80	5
7	28	70	140	6
10	40	100	200	7
14	56	140	280	8
20	80	200	400	9
26	104	260	520	10
34	136	340	680	11
42	168	420	840	12
52	208	520	1040	13
64	256	640	1280	14
77	308	770	≥1540	15
170	680	1700		20
310	1240	≥3100		25
500	2000			30
750	≥3000			35
1100				40
1500				45
≥2000				50

SEGREGATION FROM OTHER ON-SITE HAZARDOUS GOODS

If not specified in other standards or regulations the other hazardous substances should be separated by the minimum distance as if they were an on-site protected place.



IMPORTANT INFORMATION TO KNOW BEFORE YOU BUY

VENTILATION

Each package store shall be provided with adequate natural or mechanical ventilation, depending on the goods being stored. Ventilation shall be sufficient to maintain the ambient concentration of vapours in the store below the lower explosive limit (LEL).

Natural ventilation is most often used in modified freight containers. There are different ways to achieve the venting requirements. HazBox Hazardous Goods Containers uses vents on opposing walls.

Vents shall consist of openings immediately above the upper limit of the spillage compound, each having a net free area of at least 0.1m², or 0.15m² where open packages are present, with an equal area of openings above the highest package, positioned to ensure effective movement of air. There shall be one low-level vent in each 3m of length of wall.

SPILLAGE CONTAINMENT

AS1940 states that "The capacity of the spillage containment compound shall be at least 100% of the volume of the largest package plus 25% of the storage capacity up to 10,000 L, together with 10% of the storage capacity between 10,000 L and 100,000 L, and 5% above 100,000 L.

The maximum storage capacity for a modified freight container will depend on:

The volume of the largest container stored, the size of the containment bund, and the available space in the container. For simplicity, the table below sets out the maximum volume of product that can be stored in each HazBox Hazardous Goods Storage Container based on three common package sizes.

HAZBOX® HAZARDOUS GOODS STORAGE CONTAINERS		LARGEST CONTAINER SIZE			
Item Code	Container Size	Sump Capacity (L)	IBC (1000L)	Drum (208L)	Jerry Can (20L)
STHB2440	8'	1150	n/a	3750	4500
STHB3050	10'	1540	2160	5320	6080
STHB6010	20'	2400	5200	8750	9520

OTHER CONSIDERATIONS

If you open packages in the Hazardous Goods Storage Container, then AS1940:2017 requires that you install the following items within 10m of the container but no closer than 2m:

- An emergency eyewash that complies with ANSI Z35.1 (AS4775)
 - ▶ We recommend either the T124 Tobin Saline Eyewash system or a plumber eyewash such as the GC1760P. Our full range of eyewash solutions are available [here](#).
- Water for the washing of hands.

An Emergency Safety Showers complying with ANSI Z35.1 (AS4775) shall be installed where:

- the quantity of liquids exceeds 2000 L; or
- required by risk assessment or regulation.

