

## HAZARDOUS CHEMICAL REGISTER AND RISK ASSESSMENT

August 2023  
PS206503

Mirvac Retail  
Broadway Shopping Centre,  
1 Bay Street,  
Ultimo NSW

# Hazardous Chemicals Register and Risk Assessment

## Mirvac Retail

### Broadway Shopping Centre, 1 Bay Street, Ultimo NSW

#### EXECUTIVE SUMMARY

##### Purpose

This report presents the findings of a hazardous chemical risk inspection and assessment conducted at Broadway Shopping Centre located at 1 Bay Street, Ultimo NSW. The assessment was undertaken to develop a Hazardous Chemical Register and assess risks associated with the storage and handling of chemicals on site. Delia James (Senior Consultant) of Grencap carried out the assessment on Wednesday 2<sup>nd</sup> August 2023 at the request of Karl Fletcher (Facility Manager) of Mirvac Retail.

##### Scope

The Hazardous Chemicals Register and Risk Assessment were undertaken within base building areas. This included the following:

- Preparation of a register of chemicals stored on site;
- Identification of hazards associated with the chemicals;
- Identification of hazards associated with storage and handling;
- Assessment of risk based on site inspection and review of documentation; and
- Preparation of a risk assessment with prioritised recommendations for action.

## Findings

The following potential hazards were identified on site that were evaluated as **high risk**.

- Throughout, All Storage Locations – Incompatible hazardous chemicals were stored without adequate chemical separation.
- Throughout, All Storage Locations – Delayed first aid/emergency response due to lack of eyewash/shower facilities.
- Throughout, All Storage Locations – Delayed first aid/ emergency response due to poorly maintained or no first aid equipment (e.g. out of date items within First Aid Kit).

The following potential hazards were identified on site and were evaluated as **medium risk**:

- Throughout, All Storage Locations – Inappropriate use of chemical due to inadequately labelled chemical containers.
- Throughout, All Storage Locations – Chemicals not stored within secondary containment, not provided with adequate spill containment or containment observed to be damaged or full of water.
- Greek Street Building, Dock – Gas cylinders were inappropriately stored not secured from falling and without impact protection (outside of cage) and with no placarding.
- Throughout, All Storage Locations – Injury to personel and the environment due to inadequate provisions to contain and manage spills, no spill kits available or empty.
- Throughout, All Storage Locations – Injury to personnel due to delayed response to chemical hazards from out of date/missing Safety Data Sheets (SDS).
- Main Building, Cleaners Room – flammable cabinet observed with bottom shelf removed (compromised bunding). Additionally, doors on the flammable cabiniet did not automatically close when tested.

Detailed potential hazards and the subsequent potential consequences of the hazard are provided in **Appendix B**, and are illustrated by the photographs in **Appendix C**.

## Recommendations

The following recommendations are made based on **high risk**.

- Throughout, All Storage Locations – Where stated in the chemicals SDS, incompatible chemicals are to be kept apart by a minimum of three (3) metres in accordance with *AS/NZS 3833:2007 The storage and handling of mixed classes of dangerous goods in packages and intermediate bulk containers and WHS Regulation (NSW) 2017, Clause 356*.
- Throughout, All Storage Locations – Consider installing an emergency eyewash/shower facility connected to the building water supply adjacent the chemical storage areas.

Emergency eyewash/shower is to be installed in accordance with AS4775:2007 *Emergency eyewash and shower equipment*.

- Throughout, All Storage Locations – Restock first aid kits on site and consider conducting regular inspection of First Aid kits and supplier to ensure they are adequately stocked and all items are within date in accordance with *WHS Regulation (NSW) 2017, Clause 42*.
- Greek Street Building, Level B2, Cleaners Room – Ensure that fire extinguishers are appropriately serviced on a 6-monthly basis and tagged in accordance with *AS1851:2012 Routine Service of Fire Protection Systems and Equipment*.
- Greek Street Building, Level B2, Cleaners Room - Ensure that all fire extinguishers are readily accessible and not blocked by stored chemical packages in accordance with *AS2444:2001 Portable Fire Extinguishers and Fire Blankets*.

The following recommendations are made based on **medium risk**:

- Throughout, All Storage Locations – All containers that hold a hazardous chemical, including containers in which substances are decanted, must be appropriately labelled in accordance with the *WHS Regulation 2017 (NSW), Clauses 341 and 342*. As a minimum labels should clearly identify the substance and provide basic health and safety information about the substance, including any relevant risk phrases and safety phrases. Alternatively, dispose of unlabelled chemicals.
- Throughout, All Storage Locations – Provide adequate spill containment (e.g. secondary containment) for all chemicals stored on site in accordance with *WHS Regulation (NSW) 2017, Clause 357*.
- Greek Street Building, Dock – Ensure that gas cylinders are appropriately stored in an upright position, secured from falling and afforded impact protection with appropriate placarding in accordance with *Australian Standard (AS) 4332:2004 The Storage and Handling of Gases in Cylinders*.
- Throughout, All Storage Locations – Provide adequate spill containment (e.g. spill kits) for all chemicals stored on site in accordance with *WHS Regulation (NSW) 2017, Clause 357*.
- Throughout, All Storage Locations – Obtain current (i.e. within 5 years from date of issue) SDS for all hazardous chemicals on site. Ensure copies of the relevant SDS are placed at the point of use/storage of hazardous chemicals to ensure that they are 'readily accessible' in accordance with *WHS Regulation 2017 (NSW), Clause 344*.
- Main Building, Cleaners Room – Replace/ repair flammable cabinet to ensure cabinets comply with *Australian Standard (AS) 1940:2017 The Storage and Handling of Flammable and Combustible Liquids*.

# Hazardous Chemicals Register and Risk Assessment

## Mirvac Retail

Broadway Shopping Centre, 1 Bay Street, Ultimo NSW

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## 1. Introduction

This report presents the findings of a hazardous chemical inspection and risk assessment conducted at Broadway Shopping Centre, located at 1 Bay Street, Ultimo NSW. The assessment was undertaken to develop a Hazardous Chemical Register and assess risks associated with the storage and handling of chemicals on site. Delia James (Senior Consultant) of Grencap carried out the assessment on Wednesday 2<sup>nd</sup> August 2023 at the request of Karl Fletcher (Facility Manager) of Mirvac Retail.

## 2. Scope

The Hazardous Chemicals Register and Risk Assessment was undertaken within base building areas only. This included the following:

- Preparation of a register of chemicals stored on site;
- Identification of hazards associated with the chemicals;
- Identification of hazards associated with storage and handling;
- Assessment of risk based on site inspection, review of documentation; and
- Preparation of a risk assessment with prioritised recommendations for action.

## 3. Methodology

### 3.1. Hazard Identification - Substances

Hazardous properties of each substance stored on site were collated from the Safety Data Sheet (SDS). Where the SDS was unavailable for a substance, generic hazardous properties for the class of hazardous chemical were used. For each hazardous property identified, an assessment was made to determine whether this hazardous property resulted in a hazard for the storage area.

Notable storage requirements are presented in the Hazardous Chemical Register in **Appendix A**.

### 3.2. Hazard Identification – Legislative Requirements

A visual inspection of hazardous chemicals on site was undertaken during the site inspection to determine the relevant legislative controls.

The site inspection included an assessment of the storage facilities for spill retention, emergency access/egress, fire-fighting equipment, Personal Protective Equipment (PPE), water supply and identification of incompatible storage substances and materials.

The findings of the site inspection were linked to the assessment of compliance with legislative requirements. Legislative documents used throughout the assessment included:

- *NSW Work Health and Safety (WHS) Act 2011 and Work Health and Safety (WHS) Regulation 2017, Chapter 7 – Hazardous Chemicals;*
- *Code of Practice – Managing Risks of Hazardous Chemicals in the Workplace (WorkCover NSW, 2014);*
- *Code of Practice – Labelling of Workplace Hazardous Chemicals (SafeWork NSW, 2016);*
- *AS1940:2017 – The storage and handling of flammable and combustible liquids;*
- *AS3780:2008 – The storage and handling of corrosive substances;*
- *AS4332:2004 – The storage and handling of gases in cylinders; and*
- *AS/NZS3833:2007 – The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers.*

Each legislative requirement was assessed for potential hazards associated with non-compliance. Where potential hazards were identified they were recorded in the Risk Register in **Appendix B**.

### 3.3. Risk Assessment

Hazards identified through the above process were assessed for the potential consequence(s) and in the likelihood that the hazard is realised. The risk assessment approach is detailed in **Appendix D** of this report.

### 3.4. Recommended Actions

The results of the risk assessment are tabulated in **Appendix B** of this report.

## 4. Summary of Findings

The following potential hazards were identified on site that were evaluated as **high risk**.

- Throughout, All Storage Locations – Incompatible hazardous chemicals were stored without adequate chemical separation.
- Throughout, All Storage Locations – Delayed first aid/emergency response due to lack of eyewash/shower facilities.
- Throughout, All Storage Locations – Delayed first aid/ emergency response due to poorly maintained or no first aid equipment (e.g. out of date items within First Aid Kit).

The following potential hazards were identified on site and were evaluated as **medium risk**:

- Throughout, All Storage Locations – Inappropriate use of chemical due to inadequately labelled chemical containers.
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- Throughout, All Storage Locations – Injury to personel and the environment due to inadequate provisions to contain and manage spills, no spill kits available or empty.
- Throughout, All Storage Locations – Injury to personnel due to delayed response to chemical hazards from out of date/missing Safety Data Sheets (SDS).
- Main Building, Cleaners Room – flammable cabinet observed with bottom shelf removed (compromised bunding). Additionally, doors on the flammable cabiniet did not automatically close when tested.

Detailed potential hazards and the subsequent potential consequences of the hazard are provided in **Appendix B**, and are illustrated by the photographs in **Appendix C**.

## 5. Recommendations

The following recommendtions are made based on **high risk**.

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- Throughout, All Storage Locations – Consider installing an emergency eyewash/shower facility connected to the building water supply adjacent the chemical storage areas.

Emergency eyewash/shower is to be installed in accordance with AS4775:2007 *Emergency eyewash and shower equipment*.

- Throughout, All Storage Locations – Restock first aid kits on site and consider conducting regular inspection of First Aid kits and supplier to ensure they are adequately stocked and all items are within date in accordance with *WHS Regulation (NSW) 2017, Clause 42*.
- Greek Street Building, Level B2, Cleaners Room – Ensure that fire extinguishers are appropriately serviced on a 6-monthly basis and tagged in accordance with *AS1851:2012 Routine Service of Fire Protection Systems and Equipment*.
- Greek Street Building, Level B2, Cleaners Room – Ensure that all fire extinguishers are readily accessible and not blocked by stored chemical packages in accordance with *AS2444:2001 Portable Fire Extinguishers and Fire Blankets*.

The following recommendations are made based on **medium risk**:

- Throughout, All Storage Locations – All containers that hold a hazardous chemical, including containers in which substances are decanted, must be appropriately labelled in accordance with the *WHS Regulation 2017 (NSW), Clauses 341 and 342*. As a minimum labels should clearly identify the substance and provide basic health and safety information about the substance, including any relevant risk phrases and safety phrases. Alternatively, dispose of unlabelled chemicals.
- Throughout, All Storage Locations – Provide adequate spill containment (e.g. secondary containment) for all chemicals stored on site in accordance with *WHS Regulation (NSW) 2017, Clause 357*.
- Greek Street Building, Dock – Ensure that gas cylinders are appropriately stored in an upright position, secured from falling and afforded impact protection with appropriate placarding in accordance with *Australian Standard (AS) 4332:2004 The Storage and Handling of Gases in Cylinders*.
- Throughout, All Storage Locations – Provide adequate spill containment (e.g. spill kits) for all chemicals stored on site in accordance with *WHS Regulation (NSW) 2017, Clause 357*.
- Throughout, All Storage Locations – Obtain current (i.e. within 5 years from date of issue) SDS for all hazardous chemicals on site. Ensure copies of the relevant SDS are placed at the point of use/storage of hazardous chemicals to ensure that they are 'readily accessible' in accordance with *WHS Regulation 2017 (NSW), Clause 344*.
- Main Building, Cleaners Room – Replace/ repair flammable cabinet to ensure cabinets comply with *Australian Standard (AS) 1940:2017 The Storage and Handling of Flammable and Combustible Liquids*.



# Hazardous Chemicals Register and Risk Assessment **Mirvac Retail**

Broadway Shopping Centre, 1 Bay Street, Ultimo NSW

## Appendix A: Hazardous Chemical Register

## Hazardous Chemical Register

Site: Broadway Shopping Centre, 1 Bay Street, Ultimo NSW

Date: 22 August 2023

Assessed by: Delia James

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
M & M Building												
Level 4												
HydroChem Hydro 256	1,5 Pentanedial	Haz	8	2X	S6	<b>Feb 2023</b>	10L	Cooling Tower Enclosure	Water treatment biocide	Keep away from direct sunlight and heat	GC	Aug 2024
HydroChem Hydro 260	Orthophosphoric acid	Haz	8	2X	S6	<b>May 2021</b>	20L	Cooling Tower Enclosure	Corrosion and scale inhibitor	Incompatible with strong alkalis	GC	Aug 2024
Level B1												
Diesel	Petroleum distillate	Haz	-	3Z	-	<b>No SDS</b>	10L	B1 Sprinkler Pump Room	Fuel/power source	Keep away from ignition sources	GC	Aug 2024
Greek Street Building												
Ground Level/Car Park/ Work Shop												
Unlabelled Container	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	15L	Work Shop	Unknown	Unknown	GC	Aug 2024

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
Mortein Power Guard	Unknown	Unk	Unk	Unk	Unk	No SDS	3L	Work Shop	Unknown	Unknown	GC	Aug 2024
Whitely Lemex	Unknown	Unk	Unk	Unk	Unk	No SDS	5L	Work Shop	Unknown	Unknown	GC	Aug 2024
The Urinal Lok Aqua Lok	Unknown	Unk	Unk	Unk	Unk	No SDS	15L	Work Shop	Unknown	Unknown	GC	Aug 2024
Roundup Weedkiller	Unknown	Unk	Unk	Unk	Unk	No SDS	2.5L	Work Shop	Unknown	Unknown	GC	Aug 2024
Diggers Low Odor Turps	Unknown	Unk	Unk	Unk	Unk	No SDS	4L	Work Shop	Unknown	Unknown	GC	Aug 2024
Level 4 Cleaners Cage												
Neo Antibacterial Handwash	Unknown	Unk	Unk	Unk	Unk	No SDS	15L	Cleaners Cage	Unknown	Unknown	GC	Aug 2024
Enviro Chemicals Milti Klean	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	Cleaners Cage	Unknown	Unknown	GC	Aug 2024
Elite Graffiti Remover	Unknown	Unk	Unk	Unk	Unk	No SDS	5L	Cleaners Cage	Unknown	Unknown	GC	Aug 2024
Petrol	Unknown	Unk	Unk	Unk	Unk	No SDS	15L	Cleaners Cage	Unknown	Unknown	GC	Aug 2024

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
Diesel	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	Cleaners Cage	Unknown	Unknown	GC	Aug 2024
Level 4 Dock												
LPG	LP Gas	Haz	2.1	2YE	Unk	No SDS	9 x 36.3 tanks	Dock (tenant)	Unknown	Unknown	GC	Aug 2024
LPG	LP Gas	Haz	2.1	2YE	Unk	No SDS	7 x 8.5kg tanks	Dock (Base Building)	Unknown	Unknown	GC	Aug 2024
Main Building												
Level B2 Workshop												
Paint (non flammable)	Unknown	Unk	Unk	Unk	Unk	No SDS	150L	Workshop	Unknown	Unknown	GC	Aug 2024
Paint (flammable)	Unknown	Unk	Unk	Unk	Unk	No SDS	300L	Workshop	Unknown	Unknown	GC	Aug 2024
Mineral Terps	Unknown	Unk	Unk	Unk	Unk	No SDS	5L	Workshop	Unknown	Unknown	GC	Aug 2024
Methylated Spirits	Unknown	Unk	Unk	Unk	Unk	No SDS	4L	Workshop	Unknown	Unknown	GC	Aug 2024
Glitz Premium Bleach	Unknown	Unk	Unk	Unk	Unk	No SDS	2L	Workshop	Unknown	Unknown	GC	Aug 2024

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
Level B2 Cleaners Room												
Aquamix	Unknown	Haz	3	Unk	Unk	No SDS	40L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Pioneer Eqlipse (eclipse)	Unknown	Unk	Unk	Unk	Unk	Oct 2025	110L	B2 Cleaners Room	Floor Selaer	Do not mix with other chemicals	GC	Aug 2024
Clean Plus Vivasan	Unknown	Unk	Unk	Unk	Unk	No SDS	60L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
White King Mould & Soap Scum Remover	Unknown	Unk	Unk	Unk	Unk	No SDS	500ml	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Pioneer Eqlipse (formula X-Treme)	Unknown	Haz	8	2X	S6	May 2025	40L	B2 Cleaners Room	Floor finish Remover	Incompatible with strong acids, bases and oxidizing agents	GC	Aug 2024
Envriochemicals defoamer	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite Chemicals White Oil	Unknown	Unk	Unk	Unk	Unk	No SDS	90L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Pioneer Eqlipse (equinox)	Unknown	Non Haz	-	-	-	April 2026	60L	B2 Cleaners Room	Floor Finish	Do not mix with other chemicals	GC	Aug 2024
Windex Glass	Unknown	Unk	Unk	Unk	Unk	No SDS	15L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
Clean & Easy TR50	Unknown	Unk	Unk	Unk	Unk	No SDS	10L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite Cleaning Polish All	Unknown	Unk	Unk	Unk	Unk	No SDS	5L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Green Fresh dishwashing liquid	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite Cleaning URclean	Unknown	Unk	Unk	Unk	Unk	No SDS	40L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Bathroom WIZ	Unknown	Non Haz	-	-	-	Jan 2027	20L	B2 Cleaners Room	Bathroom, shower & toilet cleaner	Avoid strong acids	GC	Aug 2024
Carpet WIZ	Unknown	Non Haz	-	-	-	Jan 2027	60L	B2 Cleaners Room	Carpet Cleaner	Store in a cool dry ventilated area	GC	Aug 2024
Envirochemicals solution	Unknown	Non Haz	-	-	-	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Tazman Chemicals (goodbye graffiti)	Unknown	Non Haz	-	-	-	No SDS	5L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite Cleaning king bleach	Unknown	Unk	Unk	Unk	Unk	No SDS	60L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
Agar PH7	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite Cleaning disinfectant pine	Unknown	Unk	Unk	Unk	Unk	No SDS	5L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite Cleaning graffiti remover	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite Cleaning soap pearlescent white	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Protect Guard WF premium	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Enviro Chemicals multi klean	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite Cleaning Tornado	Unknown	Haz	8	TEP G2X	S6	Jan 2026	20L	B2 Cleaners Room	Tile cleaner	incompatible with oxidizing agents, acids, metals and heat.	GC	Aug 2024
Elite Cleaning eucalyptus spray and wipe	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
Elite Cleaning dynamic dishwashing solution	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Diggers low odour turps	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Agar oil stain	Unknown	Unk	Unk	Unk	Unk	No SDS	10L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Unlabelled container (petrol)	Unknown	Unk	Unk	Unk	Unk	No SDS	5L	B2 Cleaners Room (floor)	Unknown	Unknown	GC	Aug 2024
Unlabelled container (petrol)	Unknown	Unk	Unk	Unk	Unk	No SDS	20L	B2 Cleaners Room (large cabinet)	Unknown	Unknown	GC	Aug 2024
Unlabelled container (diesel)	Unknown	Unk	Unk	Unk	Unk	No SDS	8L	B2 Cleaners Room (large cabinet)	Unknown	Unknown	GC	Aug 2024
Unlabelled container (petrol)	Unknown	Unk	Unk	Unk	Unk	No SDS	10L	B2 Cleaners Room (large cabinet)	Unknown	Unknown	GC	Aug 2024



Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
Bondall hydrochloric acid	Unknown	Unk	Unk	Unk	Unk	No SDS	10L	B2 Cleaners Room (large cabinet)	Unknown	Unknown	GC	Aug 2024
Unlablled (two stroke)	Unknown	Unk	Unk	Unk	Unk	No SDS	8L	B2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Level 2 Cleaners Room												
Agar PH7 nutral detergent	Unknown	Unk	Unk	Unk	Unk	No SDS	8L	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Elite king bleach	Unknown	Haz	8	2X	S5	Jan 2027	20L	L2 Cleaners Room	Sanatising equipment	Incompatible with acids metals, peroxides and reducing agents	GC	Aug 2024
Enviro chemicals clean and fresh dishwashing liquid	Unknown	Non Haz	-	-	-	Jan 2026	20L	L2 Cleaners Room	Dishwashing detergent	Store in a cool dry well ventilated area	GC	Aug 2024
Elite disinfectant lemon	Unknown	Non Haz	-	-	-	Jan 2026	20L	L2 Cleaners Room	General purpose cleaner	Incompatible with acids, metals, peroxides and reducing agents	GC	Aug 2024

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
Elite eucalyptus spray and wipe	Unknown	Non Haz	-	-	-	Jan 2026	20L	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Neo antibacterial handwash gel	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	20L	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Windex glass original	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	5L	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Detol – refresh	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	10L	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Tasman cleaners (goodbye graffiti)	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	10L	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
Brasso	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	250ml	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
3M Scotchguard	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	700g	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
So safe (graffiti remover)	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	1L	L2 Cleaners Room	Unknown	Unknown	GC	Aug 2024
<b>Level 4</b>												
Trane Refrigeration Oil	Unknown	Unk	Unk	Unk	Unk	<b>No SDS</b>	5L	Chiller Plant Room	Unknown	Unknown	GC	Aug 2024

Trade Name	Active Chemical Ingredient	Hazardous	DG Class/Sub-risk	Hazchem Code	Poison Schedule	SDS Expiry Date	Max Quantity on Site	Storage Location	Approved Use	Special Storage Requirements	Signature	Next Review Date
York 'C' Oil	Unknown	Non Haz	-	-	-	<b>Mar 2020</b>	5L	Chiller Plant Room	Mineral Oil	Inompatable with oxidizing agents	GC	Aug 2024
Hydrochem Hydro 375	1-bromo-3-chloro-5,5 dimethylhydantoin	Haz	5.1/8	1W	-	<b>June 2021</b>	15kg	Cooling Tower Enclosure	Water treatment biocide	Inompatable with oxidizing agents	GC	Aug 2024
Hydrochem Hydro 256	1,5 Pentanedial	Haz	8	2X	S6	<b>Feb 2023</b>	50L	Cooling Tower Enclosure	Water treatment biocide	Keep away from direct sunlight and heat	GC	Aug 2024
Hydrochem Hydro 260X	Unknown	Haz	8	2X	Unk	<b>No SDS</b>	40L	Cooling Tower Enclosure	Unknown	Unknown	GC	Aug 2024
<b>Ground Level</b>												
Diesel	Petroleum distillate	Haz	C1	3Z	-	<b>No SDS</b>	~400L	Fire Pump Room	Fuel/Power Source	Keep away from ignition sources	GC	Aug 2024

\* SDS Expiry Date: No SDS – Indicates that an SDS was not available on site at the time of the inspection. If the SDS expiry date is bolded this indicates that the SDS has expired.

\*\* Unk/Unknown – Information pertaining to chemical unknown.

# Hazardous Chemicals Register and Risk Assessment

## Mirvac Retail

Broadway Shopping Centre, 1 Bay Street, Ultimo NSW

### Appendix B: Risk Assessment

## RISK MATRIX

Risk: Risk is the combination of the probability (likelihood) of a specific unwanted event and the potential consequences should it occur.

### RISK RANKING TABLE – Guide

Likelihood	1	2	3	4	5
A	Extreme	Extreme	Extreme	High	High
B	Extreme	Extreme	High	Medium	Medium
C	Extreme	High	Medium	Medium	Low
D	High	High	Medium	Low	Low
E	High	High	Medium	Low	Low

### LIKELIHOOD

Level	Descriptor	Description
A	Almost certain	Will occur in most circumstances
B	Likely	Expected to occur occasionally
C	Moderate	May be experienced sometime in a working life
D	Unlikely	Would only occur in unlikely circumstances
E	Rare	Not expected to occur but could

### CONSEQUENCES

Level	Descriptor	People	Cost/ Productivity
1	Catastrophic	Fatality	Loss of operation and huge financial loss
2	Major	Extensive injuries or long-term serious illness and loss of time	Loss of some operation time and productivity and major financial loss
3	Moderate	Medical treatment required and up to a few days lost from workplace	Loss of productivity and high financial loss
4	Minor	First Aid required. No lost time from workplace	Medical treatment costs only
5	Insignificant	No injury but may impact on working productivity	Productivity not optimal, low or no financial loss

**Extreme Risk:** Plan controls for immediate intervention  
**High Risk:** High priority for action  
**Medium Risk:** Responsibility to be allocated and timeframe set for action  
**Low Risk:** Implement appropriate management plans

The following table provides a list of risks identified during the assessment, ranked from highest to lowest. Please refer to **Appendix C** for photographs and **Appendix D** risk assessment factors and recommended action priorities.

## RISK REGISTER

ID	Risk Title	Risk Description	Contributing factors/ scenarios	Inherent Risk			Controls	Residual Risk		
				Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
1	Chemical Segregation	Incompatible hazardous chemicals, (e.g. Class 5.1 (Oxidising) and Class 8 (Corrosive)) were stored without adequate chemical separation. <b>Location:</b> Level 4, Cooling Tower Enclosure. <b>Photo:</b> 1 & 2	Property damage due to potential fire/explosion hazard from incompatible chemicals. Serious injury due to potential fire/explosion hazard from incompatible chemicals. Serious injury due to hazardous fumes.	Moderate	Likely	High (B3)	<b>Current Controls</b> Inspected chemicals were stored in original containers. The majority of the chemicals throughout the site were appropriately segregated. <b>Recommendation</b> Where stated in the chemicals SDS, incompatible chemicals Class 3 (Flammable Liquid) and Class 8 (Corrosive) are to be kept apart by a minimum of three (3) metres in accordance with AS/NZS 3833:2007 <i>The storage and handling of mixed classes of dangerous goods in packages and intermediate bulk containers and WHS Regulation (NSW) 2017, Clause 356.</i>	Insignificant	Unlikely	Low (D5)
2	Delayed First Aid	Delayed first aid/emergency response due to lack of eyewash/shower facilities. <b>Location:</b> Throughout, All Storage Locations.	Serious injury due to delayed access to adequate first aid facilities.	Moderate	Likely	High (B3)	<b>Current Controls</b> Nil. <b>Recommendation</b> Consider installing an emergency eyewash/shower facility connected to the building water supply adjacent the chemical storage area. Emergency eyewash/shower is to be installed in accordance with AS4775:2007 <i>Emergency eyewash and shower equipment.</i>	Minor	Unlikely	Low (D4)

ID	Risk Title	Risk Description	Contributing factors/scenarios	Inherent Risk			Controls	Residual Risk		
				Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
3	Delayed First Aid	Delayed first aid/emergency response due to poorly maintained or no first aid equipment (e.g. out of date items within First Aid Kit). <b>Location:</b> Throughout, All Storage Locations.	Serious injury due to delayed access to adequate first aid facilities.	Moderate	Likely	High (B3)	<b>Current Controls</b> The majority of first aid equipment available at the site appeared to be well maintained and easily accessible.  <b>Recommendation</b> Restock first aid kits on site and consider conducting regular inspection of First Aid kits and supplier to ensure they are adequately stocked and all items are within date in accordance with <i>WHS Regulation (NSW) 2017, Clause 42</i> .	Minor	Unlikely	Low (D4)
4	Labelling	Inappropriate use of chemical due to inadequately labelled chemical containers. <b>Location:</b> Throughout, All Storage Locations. <b>Photo:</b> 3,4,5,& 6	Serious injury due to inappropriate use of chemicals Potential non-compliance with legislation Serious injury due to delayed access to emergency information.	Moderate	Unlikely	Med (D3)	<b>Current Controls</b> The majority of the chemicals stored at the site were appropriately labelled.  <b>Recommendation</b> All containers that hold a hazardous chemical, including containers in which substances are decanted, must be appropriately labelled in accordance with the <i>WHS Regulation 2017 (NSW), Clauses 341 and 342</i> . As a minimum labels should clearly identify the substance and provide basic health and safety information about the substance, including any relevant risk phrases and safety phrases. Alternatively, dispose of unlabeled chemicals.	Moderate	Rare	Med (E3)

ID	Risk Title	Risk Description	Contributing factors/scenarios	Inherent Risk			Controls	Residual Risk		
				Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
5	Spill Containment	Chemicals not stored within secondary containment, not provided with adequate spill containment or containment observed to be damaged or full of water. <b>Location:</b> Throughout, All Storage Locations. <b>Photo:</b> 7,8,9,10,11 & 12	Potential environmental contamination due to no secondary containment. Potential property damage and serious injury due to mixing of incompatible chemicals. Potential personal injury due to slips.	Moderate	Unlikely	Med (D3)	<b>Current Controls</b> The majority of the chemicals at the site were appropriately stored within secondary containment or provided with spill containment. Majority of inspected chemicals were stored in original containers. <b>Recommendation</b> Provide adequate spill containment (e.g. secondary containment) for all chemicals stored on site in accordance with <i>WHS Regulation (NSW) 2017, Clause 357</i> .	Insignificant	Unlikely	Med (E3)
6	Gas Cylinder Storage	Gas cylinders were inappropriately stored not in the upright position, without chains and without impact protection. <b>Location:</b> Greek Street Building, Dock. <b>Photo:</b> 13 & 14	Property damage due to potential fire/explosion hazard from damaged cylinders. Serious injury due to potential fire/explosion hazard from damaged cylinders.	Major	Unlikely	High (D2)	<b>Current Controls</b> Nil <b>Recommendation</b> Ensure that gas cylinders are appropriately stored in an upright position, chained and afforded impact protection in accordance with <i>Australian Standard (AS) 4332:2004 The Storage and Handling of Gases in Cylinders</i> .	Insignificant	Unlikely	Med (E3)



ID	Risk Title	Risk Description	Contributing factors/scenarios	Inherent Risk			Controls	Residual Risk		
				Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
7	Spill Kits	Injury to personnel and the environment due to inadequate provisions to contain and manage spills. <b>Location:</b> Throughout, All Storage Locations. <b>Photo:</b> -	Potential environmental contamination due to no inadequate spill containment. Potential property damage and serious injury due to mixing of incompatible chemicals. Potential personal injury due to slips, trips and falls .	Moderate	Unlikely	Med (C4)	<b>Current Controls</b> The majority of chemical storage locations were observed to have a spill kit or provisions to contain and manage a spill. Spill kits were generally adequately stocked and signposted. <b>Recommendation</b> Provide adequate spill containment provisions (e.g. spill containment system) for all chemicals stored on site in accordance with <i>WHS Regulation (NSW) 2017, Clause 357</i> .	Insignificant	Unlikely	Low (D5)
8	Safety Data Sheets	Injury to personnel due to delayed response to chemical hazards from out of date/missing Safety Data Sheets (SDS). <b>Location</b> Throughout, All Storage Locations.	Serious injury due to delayed access to emergency information.	Moderate	Unlikely	Med (D3)	<b>Current Controls</b> The majority of chemicals at the site had current SDS available at the point of use/storage. <b>Recommendation</b> Obtain current (i.e. within five (5) years from date of issue) SDS for all hazardous chemicals on site. Ensure copies of the relevant SDS are placed at the point of use/storage of hazardous chemicals to ensure that they are 'readily accessible' in accordance with <i>WHS Regulation 2017 (NSW), Clause 344</i> .	Minor	Unlikely	Low (D4)

# Hazardous Chemicals Register and Risk Assessment

## Mirvac Retail

Broadway Shopping Centre, 1 Bay Street, Ultimo NSW

### Appendix C: Photographs



**Photo 1.** Incompatible chemical separation in the Greek Street-Workshop.



**Photo 2.** Incompatible chemical separation in the Main Building, Level 4, Cooling Tower enclosure.



**Photo 3.** Unlabelled container stored in Greek Street-Workshop.



**Photo 4.** Unlabelled container stored on floor of Sprinkler Pump Room – main building Gourd Level.



**Photo 5.** Chemical containers without labels in the Main Building Level 2 - Cleaners Room.



**Photo 6.** Chemical containers without labels in the Main Building Level 2 - Cleaners Room.





**Photo 7.** Unbundled container stored in Greek Street-Workshop.



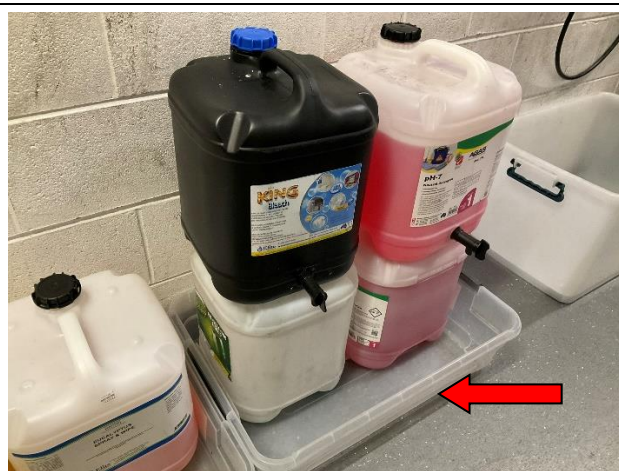
**Photo 8.** Unbundled container stored in Level B2 Workshop



**Photo 9.** Unbundled container stored in Level 2 Cleaners Store.



**Photo 10.** Stored chemicals without secondary containment to the Greek Street Building, Level 2, Cleaners Room.



**Photo 11.** Stored chemicals with inadequate secondary containment in the B2 Cleaners Store



**Photo 12.** Stored chemicals without secondary containment in the B2 Cleaners Store.



**Photo 13.** Inappropriately stored gas cylinders in the Greek Street Building, Dock.



**Photo 14.** Inappropriately stored gas cylinders in the Greek Street Building, Dock.

# Hazardous Chemicals Register and Risk Assessment

## Mirvac Retail

Broadway Shopping Centre, 1 Bay Street, Ultimo NSW

### Appendix D Risk Assessment Factors – Chemical Management

## IDENTIFICATION OF HAZARDS

### Hazardous Chemicals

Under the WHS legislation, Hazardous Chemical means a substance, mixture or article that satisfies the criteria for a hazard class in the Globally Harmonized System (GHS). Hazardous Chemicals include both Dangerous Goods and Hazardous Substances.

### Dangerous Goods

The identification of hazards associated with dangerous goods looks at how they are stored and handled. Factors considered are the inherent hazards such as fire, explosion, corrosion, toxic emissions and the potential for incidents. Dangerous goods classes are as follows:

- Class 1 – Explosives;
- Class 2 – Gases;
- Class 3 – Flammable Liquids;
- Class 4 – Flammable Solids;
- Class 5 – Oxidising Agents and Organic Peroxides;
- Class 6 – Toxic and Infectious Substances;
- Class 7 – Radioactive Substances;
- Class 8 – Corrosive Substances; and
- Class 9 – Miscellaneous Dangerous Substances.

There are many sub-classes within these classes that further classify dangerous goods according to their properties e.g. Class 2.1 – Flammable Gas, Class 2.2 – Non-Flammable Gas, Class 2.3 Poisonous Gas, etc.

### Hazardous Substances

The identification of hazards associated with hazardous substances reviews how they are used as well as the health effects associated with the substances. Factors considered are the routes of exposure, work practices and the circumstances under which exposure to hazardous substances could occur.

Hazardous substances are defined in terms of their direct health effects on people whereas dangerous goods are defined by their physical and chemical properties. For example, a chemical that is only flammable and has no toxic, corrosive, sensitising or cancer causing properties would be a dangerous good but not necessarily a hazardous substance. There is a large overlap (about 95%) between the two groups.

## **RISK CONTROL MEASURES**

Risk control measures should be considered where identified hazards have a risk rating where it may be possible to further reduce risk. The following hierarchy of controls should be observed when determining control measures. The list below sets out the order of control measures to be taken if it is not reasonably practicable to eliminate a risk.

### **Elimination**

The most effective method of risk reduction is the elimination of risk at the source. This includes eliminating either the dangerous good/hazardous substance or the activity which gives rise to the risk.

### **Substitution**

Substituting the dangerous good or hazardous substance with another product, that has a lower risk associated with the storage and handling.

### **Reducing Quantities Stored and Handled**

Where possible, the quantities of dangerous goods and hazardous substances should be kept at a minimum. This includes the removal of chemicals that are no longer required on site.

### **Isolation**

Isolation involves separating people from the substance by distance or barriers. Australian and New Zealand Standards provide guidance on appropriate separation distances for dangerous goods.

### **Engineering Controls**

Engineering controls are controls which use engineering measures to reduce the risk associated with the storage and handling of dangerous goods or hazardous substances (i.e. ventilation).

### **Administrative Controls**

Administrative controls are systems of work or safe work practices that help to reduce risks associated with the storage and handling of dangerous goods and hazardous substances.

### **Personal Protective Equipment (PPE)**

The use of PPE in conjunction with other control measures may provide additional risk control. PPE should be the last resort for controlling risk and employees should be trained to fit and use any required PPE properly.