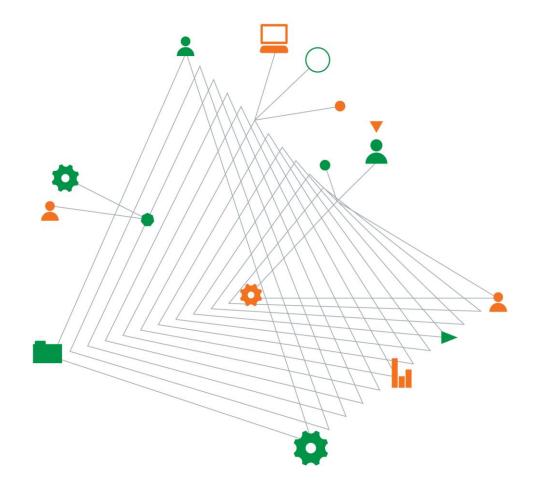


Mirvac Real Estate Pty Ltd

Hazardous Chemicals Survey

380 St Kilda Road, Melbourne VIC 3000

9 April 2021



Experience comes to life when it is powered by expertise This page has been left intentionally blank

Hazardous Chemicals Survey

Prepared for Mirvac Real Estate Pty Ltd

Prepared by Coffey Services Australia Pty Ltd Level 19, Tower B, 799 Pacific Highway Chatswood NSW 2067 Australia t: +61 2 9406 1000 f: +61 2 9406 1002 ABN: 55 139 460 521

Quality information

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Executive Summary

Coffey Services Australia Pty Ltd (Coffey) was commissioned by Mirvac Real Estate Pty Ltd to conduct a Hazardous Chemicals Survey at 380 St Kilda Road, Melbourne VIC 3000 (the site). This report is required to assist Mirvac Real Estate Pty Ltd in meeting its obligations under VIC Occupational Health & Safety Regulations 2017.

The assessment was undertaken by Jake Iskenderian and Phoebe Quessy on the 3rd March 2021.

The Hazardous Chemicals Assessment method applied is based on the requirements of the National Code of Practice *Managing risk of hazardous chemicals in the workplace (*Safe Work Australia, 2012) and from statutory requirements of the VIC Occupational Health & Safety Act 2004, VIC Occupational Health & Safety Regulation 2017, VIC Dangerous Goods Act 1985 and the VIC Dangerous Goods (Storage & Handling) Regulation 2012. The assessment drew information from consultation with stakeholders, review of records and systems and observation of work practices and the work environments at the site.

The Assessment identified the following classes of Hazardous Chemicals:

- Class 2.1 Flammable Gas;
- Class 3 Flammable Liquids; and
- Class 8 Corrosive.

The assessment also established that the majority of chemicals stored or used at the site are brought to the workplaces by sub-contractors (such as paints, thinners, mineral turpentine, aerosols, and waxes) and by cleaning contractors in the form of products for use in commercial cleaning and maintenance (floor and window cleaners, bleaches and polishers).

It is concluded from the survey that the aggregated risk relating to storage and handling Hazardous Chemicals for the site is considered low.

Unmanaged contractors expose the site to increased risk of non-compliance and steps should be taken to ensure chemicals generally are managed safely, including specific site requirements for storage and/or disposal of chemicals from the site.

The Cooling Tower Water Treatment Contractor and the cleaning contractors are the main user of Hazardous Chemicals. These chemicals are used for the purpose of chemical dosing of cooling towers and commercial cleaning purpose.

1. Introduction

Coffey Services Australia Pty Ltd (Coffey) was commissioned by Mirvac Real Estate Pty Ltd (the client) to conduct a Hazardous Chemicals Survey of the office building located at 380 St Kilda Road, Melbourne VIC 3000 (the site).

The assessment was conducted on the basis of the type, quantity and storage method of various hazardous chemicals stored on site and previous hazardous chemicals survey reports issued by the client.

1.1. Objective

The objectives of this assessment were to:

- Assess the client's exposure to risk relating to storage and handling of hazardous chemicals;
- Identify classes and volumes of Hazardous Chemicals at the premises and review the existing management practices; and
- Prepare a Hazardous Chemicals register to assist the client to manage identified risks.

1.2. Site Description

The survey is of a multi-storey office building located at 380 St Kilda Road, Melbourne VIC 3000. The building was occupied at the time of the survey.

Table 1: Site Information								
Site:	380 St Kilo	380 St Kilda Road, Melbourne VIC 3000						
Assessors:	Jake Isker	Jake Iskenderian and Phoebe Quessy						
Age (Circa):	1989	Approximate area:	24,580 m ²					
Chemical Storage:	16 levels							

1.3. Scope

The scope of work required Coffey to:

- Mobilise a consultant onsite;
- Liaise with personnel and collect data on the location, type, quantities, use and function of the hazardous chemicals stores onsite;
- Identify and record the presence of hazardous chemicals at major plant, building services and storage locations/tenancies onsite (as at the time of inspection);
- Assess the risk of the storage of the hazardous chemicals onsite;
- Document the hazardous chemicals identified; and
- Record, collate and report the findings in an updated format of the previous report.

2. Methodology

The survey was undertaken in the following manner:

- Review Key legislative required documentation such as the current Register for Hazardous Chemicals either as a hard copy or electronic and historical Hazardous Chemicals Surveys.
- Liaise with relevant persons to obtain information in relation to the storage and handling of Hazardous Chemicals;
- An inspection of nominated Hazardous Chemicals storage locations to identify Hazardous Chemicals; and
- An assessment of key parameters of the storage of Hazardous Chemicals at the site.

3. Background Information

3.1. Definition of Risk Groups

The number of persons (describe in workers and general public terms) occupying the premises is variable. There are 3 defined groups who (may) interact with Hazardous Chemicals at the site, these are:

- Building Management and operations management workers;
- Tenants and Occupiers and their workers; and
- Sub-contractors.

The risk to these groups may vary according to their proximity and access to the identified Hazardous Chemicals and whether they are workers or visitors at the site greatly effects the frequency and duration of their exposure to risk.

3.2. Risk Management of Hazardous Chemicals

Hazardous Chemicals are substances and articles that are potentially hazardous to people and property. They may be toxic, radioactive, corrosive, flammable, explosive, oxidizing or reactive with water. Hazardous Chemicals are regulated by the VIC Occupational Health & Safety Act 2004, VIC Occupational Health & Safety Regulation 2017, VIC Dangerous Goods Act 1985, VIC Dangerous Goods (Storage & Handling) Regulations 2012 and the National Code of Practice *Managing risk of hazardous chemicals in the workplace*, Safe Work Australia, 2012. The different pieces of legislation are designed to provide protection for persons at workplaces, the general public and the environment from the adverse effects of Hazardous Chemicals use, handling, storage and disposal.

The Compliance Code (VIC) provides general guidance for risk management of Hazardous Chemicals including:

- Controlling conditions to ensure stability
- Controls for associated plant
- Bulk container management
- Protection against impact and other damage
- Spill containment
- Ignition source protection

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- Ventilation and atmosphere control
- Cleaning maintenance and inspection
- Work in/on plant, tanks and vessels
- Building controls
- Gas installations for plant

3.3. Classification of Hazardous Chemicals

Australia has adopted a system of classification and labelling for Hazardous Chemicals transport, storage and handling. This system helps people to quickly recognize Hazardous Chemicals, their properties and dangers. Hazardous Chemicals are divided into nine classes based on their hazardous properties. Except for very small packages, all packages and containers, shipping containers, unit loads, tankers, etc. which contain Hazardous Chemicals for transport must carry the correct Class Label. This label (or diamond sign) shows the nature of the hazard by the colour and symbol, and the Class of the goods by numeral. The responsibility for classification of products lies with the manufacturer or person packaging the products. The OHS (VIC) Regulations implement a system of chemical hazard classification, labelling and safety data sheets (SDS) requirements based on the Globally Harmonized System.

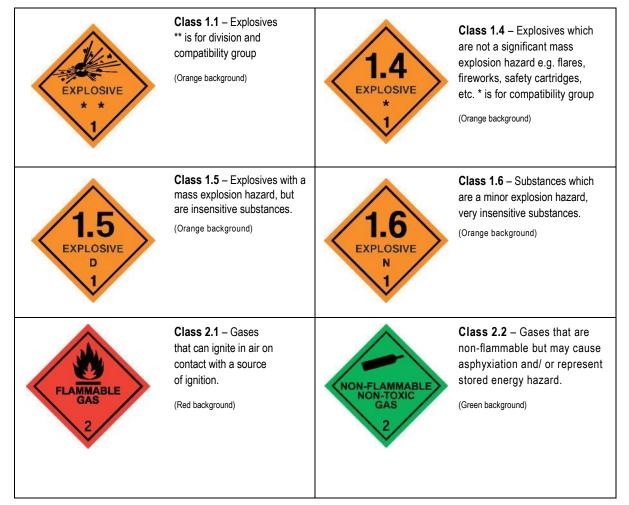
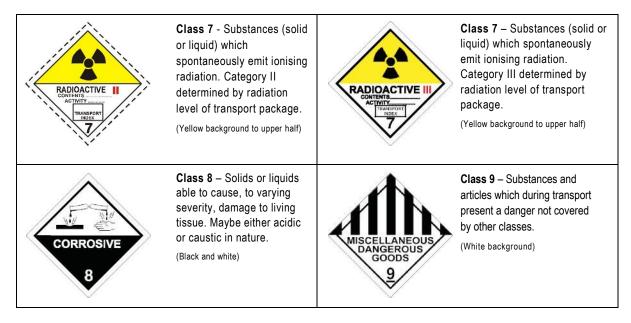


Table 1. – Hazardous Chemicals Classification

Toxic GAS 2	Class 2.3 – Gases likely to cause death or serious injury to human health if exposed or by skin contact. (White background)	FLAMMABLE 3	Class 3 –Liquids, the vapours of which can ignite in air on contact with a source of ignition. (Red background)
FLAMMABLE SOLID	Class 4.1 – Solids easily ignited e.g. by sparks or flames, or liable to cause fire through friction. (Red and white stripe background)	SPONTANEOUSLY COMBUSTIBLE 4	Class 4.2 – Substances liable to spontaneously heat up and ignite. (Red background to lower half)
DANGEROUS WHEN WET 4	Class 4.3 – Substance which emits flammable or toxic gases when wet. (Blue background)	OXIDIZING AGENT 5.1	Class 5.1 - Substance likely to increase the risk and intensity of fire in other materials (yellow background)
ORGANIC PEROXIDE 5.2	Class 5.2 - Substances that are thermally unstable and likely to react dangerously with other substances. (Yellow background)	TOXIC 6	Class 6.1 – Toxic substances likely to cause death or severe injury to human or animal health if swallowed, inhaled or by skin contact. (White background)
INFECTIOUS SUBSTANCE 6	Class 6.2 - Infectious substances liable to cause death or severe injury to human or animal health if swallowed, inhaled or by skin contact. (White background)	RADIOACTIVE CONTENTS ACTIVITY 7	Class 7 – Substances (solid or liquid) which spontaneously emit ionising radiation. Category I, determined by radiation level of transport package. (Lowest level) (White background)



3.4. Segregation of Hazardous Chemicals

Segregation means keeping incompatible goods apart from one another in a room, using a barrier or intervening space. Some Hazardous Chemicals must be segregated when either stored or shipped together to ensure they do not mix in case of spillage or other event. Table 2 can be used to determine which goods should be segregated.

To use Table 2, select two of the Classes of Hazardous Chemicals to be kept in the mixed class storage area. Locate the first Class on the top line of class numbers, and the second Class in the column on the left hand side of the table. Read the code at the intersection of the line and column.

Class	2.1	2.2	3	4.1	4.2	4.3	5.1	5.2	6	8
2.1										
2.2										
3										
4.1										
4.2										
4.3										
5.1										
5.2										
6										
8										

Table 2. - Indication of Compatibility Based on Class of Hazardous Chemicals

Keys

SEPARATE	Hazardous Chemicals of these two classes should be kept apart by at least three metres or other suitable control measures. Consult Safety Data Sheet or supplier
SEGREGATE	Hazardous Chemicals of these two classes are likely to interact with each other in such a way as to significantly increase risk and should not be kept in the same area unless it can be demonstrated that the risks can be fully controlled. Consult SDS for further guidance .
ISOLATE	Dedicated stores or storage cabinets are recommended. Adequate separation from other buildings and boundaries is required. Consult SDS for further guidance .
REFERS TO SDS	Segregation of these two classes may be necessary. Refer to the SDS for further guidance. All Class 9 Hazardous Chemicals should be segregated in accordance with the SDS.
ок	Hazardous Chemicals of the same class have similar primary hazards and are usually considered compatible. Consult with the SDS or supplier about requirements for individual substances .

CLASS TYPES:

- Class 2.1—Flammable Gas
- Class 2.2—Non Flammable Non Toxic Gas
- Class 3—Flammable Liquid
- Class 4.1—Flammable Solid
- Class 4.2—Spontaneously Combustible
- Class 4.3—Dangerous When Wet
- Class 5.1—Oxidising Agent
- Class 5.2—Organic Peroxide
- Class 6—Toxic
- Class 8—Corrosive

Source: Adapted from AS/NZS 3833:2007

4. Assessment Findings

The findings of this assessment are presented in tabulated format in **Appendix B: Hazardous Chemicals Register** of this assessment report. Refer to **Appendix A: Photographs** for photographic reference for some of the chemicals identified.

The key findings are detailed in the following sections.

4.1. Results

Survey results and recommendations for each area are contained in the Hazardous Chemicals Register attached as **Appendix A**. Within the Register, each Hazardous Chemical is given a risk score of High, Medium or Low with the following meanings:

- High Risk: High risk Hazardous Chemicals satisfy at least one of the following criteria:
 - They may pose an immediate risk to life, property and/or the environment,
 - They are a major contravention to legislation, for example large quantities of flammable liquids not being placarded.
- Medium Risk: Medium risk Hazardous Chemicals satisfy at least one of the following criteria:
 - They may pose a risk to life, property and/or the environment under certain circumstances of use such as incompatible materials inadvertently being mixed together,
 - They are a minor contravention to legislation, such as small quantities of incompatible Hazardous Chemicals stored within 3 metres of each other.
- Low Risk: Low risk Hazardous Chemicals satisfy at least one of the following criteria:
 - They may cause ill-health effects to people or negative effects to the environment if used incorrectly, for example, if contact is made with a person's skin or the material enters a drain.
 - These represent a contravention of safe work procedures as outlined in Safety Data Sheets, for example, not wearing appropriate gloves when handling

The survey established that the office building located at 380 St Kilda Road, Melbourne VIC 3000 contains the following Hazardous Chemical classes:

- Class 2.1 Flammable Gas (gas cylinder and aerosol cans);
- Class 3 Flammable Liquids (diesel fuel); and
- Class 8 Corrosive (cooling tower treatment chemicals).

Table 3 below presents the summary result regarding volume of Hazardous Chemicals by class stored at the site.

Description of Dangerous Goods	Packaging Group	Placarding Quantity	Stored at 380 St Kilda Road, Melbourne VIC 3000	Comments
Class 2	2.1	5000 L	<50L	Minor quantities stored in Cleaners Room
Class 3	1	50 L	N/A	-
	Ш	250 L	N/A	-
	Ш	1000 L	5000 L	Diesel fuel storage tank in Basement level 3
Class 8	I	50 kg or L	N/A	-
	Ш	250 kg or L	N/A	-
	III	1000 kg or L	>250 kg or L	Mainly cleaning agents stored with Water treatment Plant, Cleaners room and Plant room

Table 3. Hazardous Chemicals Placarding Quantities requirement for the Site.

The survey identified no high risk non-compliance relate issues for the storage of Hazardous Chemicals at the site.

Finally, the remainder of chemicals stored / used is either for cleaning or building maintenance purposes (such as paints, thinners, mineral turpentine, aerosols, and chlorines), products for industrial cleaning purposes (floor and window cleaners, bleaches and polishers) and cooling water treatment chemicals. Aerosol cans containing manufactured products, such as deodorants, perfume and other personal hygiene products are not classified as Hazardous Chemicals.

The following specific observations were recorded from inspections conducted at the site:

- A copy of the current Hazardous Chemicals Register was not found onsite; and
- Missing Safety Data Sheets (SDS) for some of the chemicals stored onsite (Refer Appendix B) was found during the audit.

5. Conclusions

The Conclusions, recommendations or stability of Hazardous Chemicals contained in this report shall not abrogate a person of their responsibility to work in accordance with Statutory Requirements, Codes of Practice, Guidelines, Safety Data Sheets, Work Instructions or reasonable work practices.

While the general exposure to risk associated with Hazardous Chemicals as determined by volume is assessed to be medium at the site, the actual risk to exposed groups in certain areas of the site are assessed as low. Specific risks requiring attention are as follows:

The survey has also identified deficiencies in management of Hazardous Chemicals at the site in relation to:

- Copy of Hazardous Chemicals Register not stored onsite; and
- Copies of all SDS not stored onsite.

6. Recommendations

Based on the survey and observations, it is recommended that:

- Prepare and maintain a Safety Data Sheet (SDS) register to hold the safety information for all workplace chemicals used at the site. Assign a management representative to have responsibility for this;
- Copies of SDS for all chemicals stored onsite should be placed in a designated location within the site;
- Require as a condition of service contract, that all contractors engaged at the site provide to Site management a list of chemicals they intend to use and verification by citing their SDS information set;
- Develop and present a Chemical Safety Management Training Program for all management and staff at the site;
- Produce a General Chemical Safety Management Procedure and make this available to staff and tenants. Support this procedure as necessary with the creation and display of applicable signage; and
- It is recommended that Mirvac Real Estate Pty Ltd initiate a periodic Dangerous Goods Audit of the Site to ensure the requirements are being maintained. The VIC Occupational Health & Safety Regulations 2017, recommend that such a review is performed at least once every five years, or when significant changes are made to the hazardous chemicals used onsite; and
- A copy of this report and register should be kept at the site.

7. References

VIC Occupational Health & Safety Act 2004;

VIC Occupational Health & Safety Regulation 2017;

VIC Dangerous Goods Act 1985;

VIC Dangerous Goods (Storage & Handling) Regulations 2012;

SafeWork Australia Code of Practice for Managing Risks of Hazardous Chemicals in the Workplace (July 2012)

Australian Standard 1940: 2004 'The Storage and Handling of Flammable and Combustible Liquids"

Standards Australian (2008) Australian Standard 1596:2008 "The Storage and Handling of LP Gas"

Standards Australian (2007) Australian Standard 3833:2007 'The Storage and Handling of Mixed Classes of Dangerous Goods in Packages and Intermediate Bulk Containers'.

SafeWork Australia Code of Practice for Managing Risks of Hazardous Chemicals in the Workplace (July 2012)

Australian Standard 1940: 2004 'The Storage and Handling of Flammable and Combustible Liquids"

Standards Australian (2008) Australian Standard 1596:2008 "The Storage and Handling of LP Gas"

Standards Australian (2007) Australian Standard 3833:2007 'The Storage and Handling of Mixed Classes of Dangerous Goods in Packages and Intermediate Bulk Containers'.

Appendix A – Photographs

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Photo 1 Chemical storage in Cleaners Room

Photo 2 Chemical storage in Cleaners Room



Photo 3 Chemical storage in Cleaners Room



Photo 4 Chemical storage in plant room



Photo 5 Chemical storage in plant room



Photo 6 Chemical storage in plant room

Appendix B – Hazardous Chemicals Register

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HAZARDOUS CHEMICALS REGISTER

Instructions

Complete, keep and maintain this *Hazardous Chemicals Register* for all existing and new chemicals used by staff. This register should be readily accessible by all staff who use or who may be affected or exposed to any of the hazardous chemicals listed herein.

All hazardous chemicals must have a current safety data sheet (SDS) and an accompanying risk assessment that is no more than five years old. The SDS must state whether the product is hazardous and, in case of dangerous goods, provide the proper shipping name, UN number, class label, and subsidiary risk details. Copies of the SDSs must be attached to this register.

Site		380 St Kilda Road					
Date of register		3/03/2021					
.	Name	Phoebe Quessy and Jake Iskenderian	Position/title	WHS Consultant			
Assessor	Company	Coffey	Client Contact Name	Lisa De Freitas			

Product name (chemical name and commercial name)	Location where the product is stored or used	quantities held / unit e.g. 4 x 250g)	it e.g.		Safety Data Sheet (SDS)			Risk	Comments
······,		Usual quar held (specify unit x 250g)	(specify unit x 250g) Is the product hazardous? (Dangerous good class no. (if applicable)	SDS available (Y/N)	Date of issue	Date that the new SDS is required		
Diesel Tank	Basement level 3	5000L	Y	3	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Diversey Go Getter	Ground Floor Cleaners Room	5L x 9	Y	-	N	2018	2023	Low	-



Product name (chemical name and commercial name)	Location where the product is stored or used	antities d lit e.g. 4 g)	uct (Y/N)	is good is ilicable)	Sa	afety Data	Sheet (SDS)	Risk	Comments
		Usual quantities held (specify unit e.g. 4 x 250g)	Is the product hazardous? (Y/N)	Dangerous good class no. (if applicable)	SDS available (Y/N)	Date of issue	Date that the new SDS is required		
Diversey Clean Air	Ground Floor Cleaners Room	5L	Y	8	Y	2018	2023	Low	-
Diversey Glance	Ground Floor Cleaners Room	5L x 7	Y	-	Y	2018	2023	Low	-
Initial Gold	Ground Floor Cleaners Room	5L x 6	Y	-	Ν	-	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Kwikmaster H19 Chlorinated Heavy Duty Cleaner	Ground Floor Cleaners Room	5L x 4	Y	8	Y	2018	2023	Low	-
Tile Plus Highly Concentrated Degreaser Detergent	Ground Floor Cleaners Room	5L x 3	Y	8	Y	-	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Diversey Reveal F4	Ground Floor Cleaners Room	5L x 5	Y	8	Y	2018	2023	Low	-
Deb Stoke Refresh Azure Foam Wash	Ground Floor Cleaners Room	1L x 8	Y	-	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder



Product name (chemical name and commercial name)	Location where the product is stored or used	Usual quantities held (specify unit e.g. 4 x 250g)	Is the product hazardous? (Y/N)	Dangerous good class no. (if applicable)	Safety Data Sheet (SDS)			Risk	Comments
					SDS available (Y/N)	Date of issue	Date that the new SDS is required		
Initial Gold	Cleaners Storeroom CP8	5L x 14	Y	-	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Deb Stoke Refresh Azure Foam Wash	Cleaners Storeroom CP8	1L x 100	Y	-	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Kenco Heavy Duty Degreaser	Cleaners Storeroom CP8	5L	Y	-	N	-	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Agar Once Off	Cleaners Storeroom CP8	5L	Y	8	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Agar Magic	Cleaners Storeroom CP8	5L	Y	8	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Hydro 256	Plant room	15L x 6	Y	8	Y	2016	Apr 2021	Low	-
Hydro 260	Plant room	15L x 8	Y	8	Y	2016	May 2021	Low	-



Product name (chemical name and commercial name)	Location where the product is stored or used	Usual quantities held (specify unit e.g. 4 x 250g)	Is the product hazardous? (Y/N)	Dangerous good class no. (if applicable)	Safety Data Sheet (SDS)			Risk	Comments
					SDS available (Y/N)	Date of issue	Date that the new SDS is required		
Hydro 360	Plant room	15L x 7	Y	8	Y	2015	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Hydro 326	Plant room	4kg x 2	Ν	-	Y	2016	Aug 2021	Low	-
Hydro 5801	Plant room	5L x 2	Y	8	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Hydro 348	Plant room	5L	Ν	-	Y	2015	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Hydro 371	Plant room	5L	Y	6.1	Y	2015	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Diesel tank	Plant room	970L	Y	3	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
Lead acid batteries	Plant room	2 units	Y	8	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder



Product name (chemical name and commercial name)	Location where the product is stored or used	quantities held / unit e.g. 4 x 250g)	uct (Y/N)		Safety Data Sheet (SDS)			Risk	Comments
		Usual quar held (specify unit x 250g)	Is the product hazardous? ()		SDS available (Y/N)	Date of issue	Date that the new SDS is required		
Diesel in jerry can	Plant room	10L	Y	3	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder
CAT Diesel engine oil	Plant room	20L	Ν	-	N	NA	ASAP	Low	Current valid SDS for the chemicals need to be sourced and kept in the site safety folder