



INTERNATIONAL FIRE CODE (IFC) FILTER USER GUIDE

Version 1



CHEMWATCH 2026

Melbourne, Australia

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Glossary

ADG	Australian Dangerous Goods Code
CA	Controlled Area
CAS	Chemical Abstract Substance
CRF	Cabinet Regulated Folder
CW No	Chemwatch Number
DG	Dangerous Goods
GHS	Globally Harmonised System for the Classification of Hazardous Chemicals and Labelling
HH	Health Hazard IFC filter
FL	Floor Level
ICC	International Code Council
IFC	International Fire Code
MAQ	Maximum Allowed Quantity
MFA	Manifest Facility Area
MQR	Manifest Quantity Report
NFPA	National Fire Protection, USA
PH	Physical Hazard IFC filter
PPE	Personal Protective Equipment
PKG	Packing Group for Dangerous Goods
QR Code	Quick Response Code
RA	Risk Assessment
SDS	Safety Data Sheet
SOF	Specific Occupancy Folder
SOP	Standard Operating Procedure
SSO	Single Sign On
UGD	User Generated Data
UI	User interface

UN	United Nations
USA	United States of America
VGD	Vendor Generated Data
WHS	Workplace Health and Safety, Australia

About the IFC User Guide

The IFC User Guide is developed based on the latest developments in Chemwatch's advanced chemical management system.

This guide delves into the IFC Filtering and Reporting functionality available within the Chemeritus product suite.

Modular features, icons and buttons are used across this guide to emphasize a specific activity where stepwise tasks are provided in respective topics as a reference to learning how to use the system to meet specific outcomes.

IFC Features

 Home – Folder Management - Folder Management (IFC Folder Properties) - Create a digital Manifest to mirror your sites - Add materials and edit quantities - Create report templates to export data	Regulatory, IFC Reports - Health Hazard Storage - Physical Hazard Storage - Identification of Control Areas - MAQ threshold - Notification
Print, Share, Download - Print IFC Reports - Share IFC Reports - Download IFC Reports	 SISOT IFC Related Functionality - Tracking of containers - Add products and transfer containers - Supports several barcodes formats such EAN, QR and more - Generate products and container data
 IFC Related Settings - IFC Filter Settings - User Management - User IFC Privileges	 Report Generator  - Create a template using specific datapoints - Use a theme and format for your report - Export data in various formats

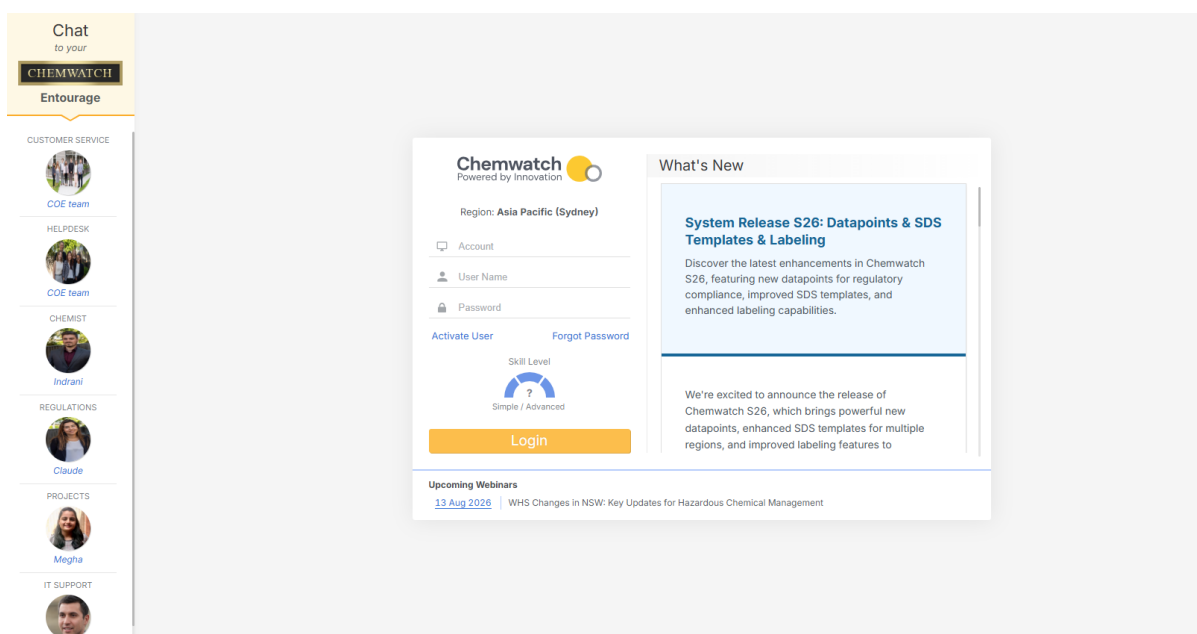
Information Reference

The information icon  provides more information in any topic or section of this guide.

About User Login and Logout

The Chemwatch system is accessible online, and access is based on regional service as per the jurisdiction of the domain. The login main page of the system contains these elements:

- Chat & Entourage
- Account, Username and Password
- What's New
- Upcoming Webinars
- X (formerly Twitter)



Elements	Function	Description
Remember me ☒ Remember me	Checkbox to remember login data	If the checkbox is selected, the browser will remember your previous login for the account and user login.
Forgot password	Change password	This feature allows Chemwatch to send an automatic email for password change. Users will be required to reassign a new password.
Register	Registration link	This link opens a registration form to register for the next upcoming webinar(s).
	Skill level	The feature meter enables users to select the applicable skill level to use Simple to Advanced features of the system.
Chat	Chat Entourage	The vertical bar on the side lets users chat with their team's Entourage. These teams correspond to the departmental services available online 24/7. Users can use instant messaging to ask questions, raise inquiries, or troubleshoot problems.

Elements	Function	Description
	Logout	Manual logout of the system.
	X-Chemwatch feed	X-is formerly Twitter. It's a social media platform where Chemwatch shares messages, images, and posts.
Whats New	System Releases	Release (Sprint) notification updates.
Webinars	Registration Link	Upcoming webinars and scheduled dates.

Single Sign On (SSO)

The Chemwatch system uses two main options for authentication:

- Manual Login
- Single Sign On (SSO)

Authentication Mode	Description
Manual Login 	Users' manual login to the application requires the following authentication fields to be filled correctly. • Account Name • User Login • Password
Single Sign on 	This option is available in the database to authenticate users against an external repository which contains references to the organisation's users. When using the external authentication method, only users and their passwords are externalized, all other data integrator privileges remain within the Chemwatch database repository.

The Chemwatch system login authentication requires a three-factor authentication mode for the manual gain access to the application through a domain account.

SSO is an authentication process that allows users to access multiple applications or services with a single set of login credentials. Instead of entering a username and password for each service, users log in once and gain access to all connected systems. This enhances user convenience, reduces password fatigue, and improves security by minimizing the number of passwords users must manage.

 Domains that have **Single Sign On (SSO)** activated by-pass the login page. If uncertain on how your SSO login works, consult with your organisation's domain administrator of the system.

Upcoming Webinars Registration

Users can register for upcoming Chemwatch webinars from the login page. On the login page, click on the “Register” link provided at the bottom of the page to fill in your details to register for the selected webinar.

Powered by Innovation

Region: Asia Pacific (Sydney)

Account

User Name

Password

[Activate User](#) [Forgot Password](#)

Skill Level

Simple / Advanced

Login

What's New

System Release S26: Datapoints & SDS Templates & Labeling

Discover the latest enhancements in Chemwatch S26, featuring new datapoints for regulatory compliance, improved SDS templates, and enhanced labeling capabilities.

We're excited to announce the release of Chemwatch S26, which brings powerful new datapoints, enhanced SDS templates for multiple regions, and improved labeling features to

Upcoming Webinars

[13 Aug 2026](#) | WHS Changes in NSW: Key Updates for Hazardous Chemical Management

User Roles, Privileges, Interface Settings, and Folder Permissions

The domain administrator has full access and control of the system. Configuration of user access, permissions and SDS settings and other modular features are managed by the system administrator within your business or organisation. The system provides the following user permissions:

- Read
- Read-write
- Deny

The best practice on user roles, function and the relative permissions is summarised below.

Role	Description	Permission
Domain Administrative Role	Administrator has access to the entire system settings.	Full access with read-write permission to the entire system and able to set up users and respective privileges, products, and user access management.
IFC User	Management of chemical inventory, folders, Manifest Facility Area, occupancy folders.	Ability to edit folders, materials, access to assigned role permissions; to be able to manage data; report generator, dashboards, document filter tools, and many more functions and features.

Manual Login

First time users will receive an email notification welcome message which contains the system web link and login details with a temporary password and when the credentials are entered, the system will prompt users to change it before the expiry timeframe.

Steps: How to Login

1. Enter your **Account**.
2. Type your **Username**.
3. Enter your **Password**.
4. Press the **Login** button.

Account 1

User Name 2

Password 3

[Forgot password](#)

Skill Level
? Simple / Advanced

4 Login

Upon successful login, the default Home module will display user interface features based on user settings applied by the domain administrator.

Home Screen Elements

The screen below displays user interface elements, modules and features for advanced users of the system at full scale of the feature meter.

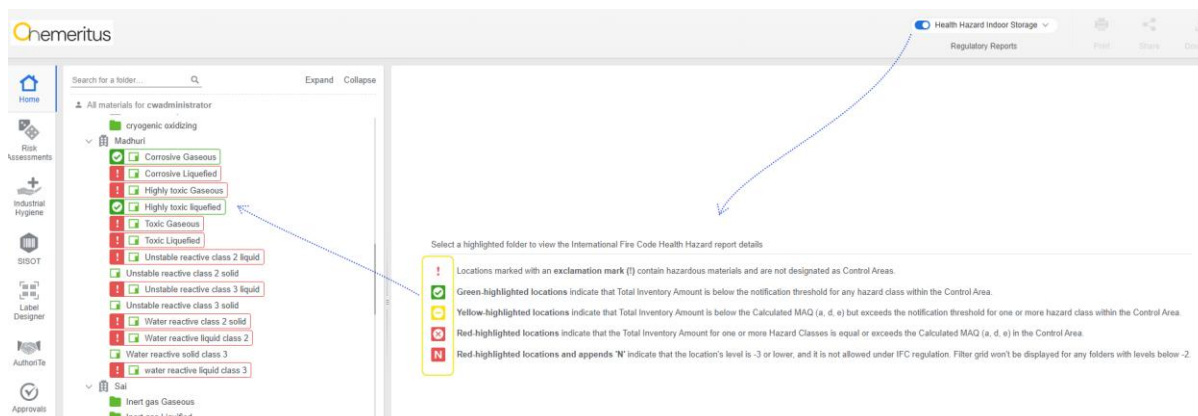
The screenshot shows the Chemwatch Home interface. The top navigation bar includes links for Home, Risk Assessments, Industrial Hygiene, SISOT, Labat Designer, Analytics, and AuthorTe. The main content area displays a table of materials with columns for Material Name, Vendor, CAS No., Hazard, and Hazard Cr. The table lists various chemicals such as 1,3-Butadiene, 1,4-Dioxane, 1-Bromomethylbenzene, 1-butene, 1-BUTENE, 1-Heptanethiol, 1-Hydroxybenzotriazole, 1-Octene, 2,3-Butanedione, and 2,3-BUTANEDIONE, 97%. The right sidebar shows a list of vendors and countries. The bottom of the screen displays the Chemwatch logo and version information.

Table Description of the main components of the home page user interface.

No.	UI Component	Description
1	Application Version	Display of the current application release version number.
2	Region	Global regional locations as per microservice regional compliance and security requirements.
3	Account	Application domain name.
4	Language	Users can set the language of the user interface from the dropdown list.
5	Settings	System administrative settings module.
6	Logo	Product (system) logo or user-dependent (own business/organisational) logo.
7	UI Theme	User interface colour theme.
8	Resources Toolbar	Access to the user interface tour, elearning, glossary, bulletin, chemcollege, manual & logout.
9	Regulatory Reports	Manifest Quantity Report, Incompatibility Report, International Fire Code: Health Hazard Indoor Storage and Physical Hazard Indoor Storage filters.
10	Logout	Log out of the system.
11	Modules	The vertical pane displays the product package modules & features.
12	Search Panel	Simple, Advanced and Query Builder search modes.
13	Folders Panel	Folder and inventory management.
14	Materials Grid	Materials view, access to Documents and Alerts.
15	Print Out	Print, Download and Share.
16	Report	Report Generator.
17	Slide Panel	Options to group materials on the grid, apply filters by hazards/data filters, vendors, countries and languages.
18	Chemwatch Entourage	Chemwatch services by business unit or department.
19	Live Help Chat	Online support through live text messages.
20	Pagination	View materials listing by pagination.

1.0 Introduction

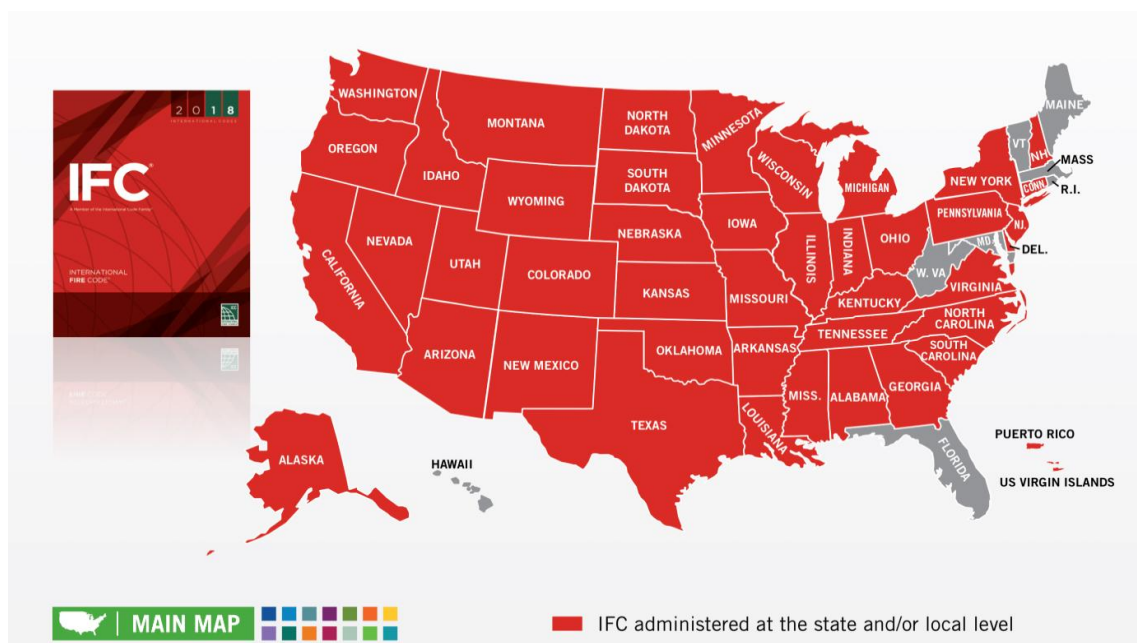
Chemeritus is a Chemwatch web application developed for the professional management of chemical inventory, SDS for chemicals used, handled, stored, or transported at the workplace, generating labels for chemical containers, creating mixtures, performing risk assessments, generating reports such as **IFC Reports** using the Regulatory Reports filter feature.



1.1 IFC Overview

The International Fire Code (IFC) is primarily a U.S. developed and adopted code system that sets out minimum requirements for fire prevention and fire protection systems through both prescriptive and performance-based provisions applicable to new and existing buildings, facilities, and operational processes.

The USA Map below shows the IFC administered States and/or Local Governments.



The IFC code is intended to operate in alignment with the International Building Code and other international codes to provide a coordinated approach to safety and compliance. The IFC combines provisions derived from the National Fire Prevention Code, the Standard Fire Prevention Code, and the Uniform Fire Code, all of which have been widely adopted and used throughout the United States for many years. The IFC is important to the industries handling hazardous materials and dangerous goods, relying on IFC provisions alongside OSHA, EPA and NFPA requirements to maintain operational compliance and reduce risks to fire.

- Building designers
- Architects
- Fire protection engineers
- Hazardous chemical storage managers
- Facility managers
- Emergency responders
- Regulatory compliance teams
- Environmental health and safety (EHS) professionals

The application of IFC is common in the following sectoral areas.

- Commercial - Buildings
- Logistics - Warehouses and logistics centres
- Education - Universities and schools
- Health – Hospitals
- Residential – Apartment buildings
- Manufacturing – Plants, engineering
- Energy – Battery storage installations
- Hazardous chemical storage

The IFC code spans across multiple various fire safety domains addressing emerging technologies, construction methods and fire risks.

- Fire prevention and hazard control
- Fire service and fire protection systems
- Means of egress
- Emergency planning
- Special occupancies and hazards
- Hazardous materials
- Dangerous goods
- Safety and building systems
- Administrative scope, enforcement and permits

The IFC is published and maintained by the ICC and is updated every three years to ensure any new technologies, construction methods and fire risks are coded and address compliance requirements to health, safety and the environment.

2.0 IFC Filtering Feature

This topic will cover the following objectives.

- Navigating the UI
- IFC Settings
- IFC Folder Structure
- IFC Folder Conditions
- IFC Folder Properties
- IFC Filter in Regulatory Reports
- IFC Landing Window (grid)
- IFC Report Generator Datapoints



The International Fire Code (IFC) governs a wide range of hazards that may arise within buildings and facilities, including the storage, handling, and use of hazardous materials. The code addresses numerous operational and safety scenarios, covering areas such as vacant buildings, indoor displays, fire protection water supplies, fire department access, key box installations, high-piled storage, tire storage facilities, and mechanical refrigeration systems, among many others.

The IFC adopts a comprehensive approach to hazard management across all types of buildings and sites, regardless of whether the hazard exists indoors or outdoors. It establishes provisions designed to safeguard public health, safety, and welfare by minimizing the risks associated with fire, explosions, and other hazardous conditions in buildings, structures, and surrounding premises.

Chemwatch developed an “**International Fire Code (IFC) Filter**” functionality for **Storage Indoor** Inventory filtering, which can be used to filter chemicals by:

- **Health Hazard**
- **Physical Hazard**

Before using the IFC feature, users should have a working knowledge of the International Fire Code (IFC), including its hazardous materials requirements and terminology. The application uses IFC rules to evaluate chemical inventory data and generate compliance-related information. Understanding the principles of the IFC enables users to accurately interpret the results, identify applicable Maximum Allowable Quantities (MAQs), and make informed decisions regarding hazardous material storage, occupancy classifications, and regulatory compliance.

Summarily, it is essential for users to understand the International Fire Code (IFC) and its requirements before using the IFC feature. This knowledge enables users to correctly interpret the information and results generated by the application.

 It is also imperative to note that depending on your jurisdiction, federal or local regulations may also apply. This module deals with the requirements set out in the IFC Code. The IFC Code manual is available on this website www.iccsafe.org for purchase.

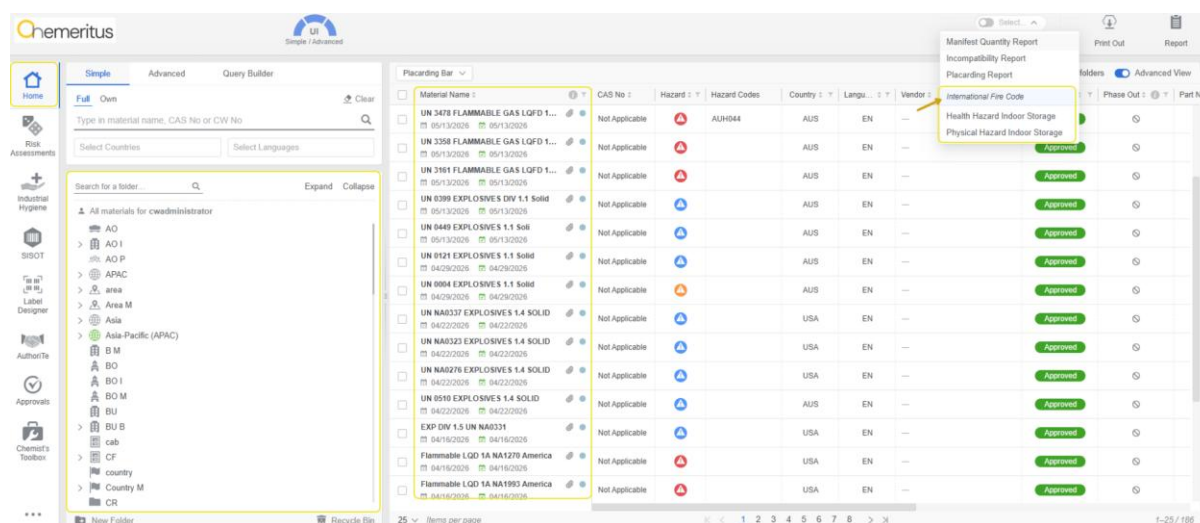
2.1 Navigating the UI and IFC Filter

The visual interactive layer of the user interface enables users access the **IFC** Filter options located in the right-hand corner in the **Regulatory Reports** feature. Generally, the user interface consists of the main application modules, materials grid, feature metre, side panel filters, regulatory reports, print, share or download, resources toolbar, search bars and pop-up windows including IFC related buttons and icons.

The main elements of the user interface relevant to a fully functional IFC logic include:

- IFC user privilege
- IFC filter settings
- IFC folder properties
- IFC notification
- IFC regulatory report options
- IFC datapoints

The IFC feature is not enabled by default for all domains. It is available as an optional licensed feature and can be purchased by contacting your account manager. However, if your organisation has licensed the Chemeritus package with this feature, the IFC Filter options in the Regulatory Reports menu will be included as shown below.



2.2 IFC Settings

When the IFC Filter is activated in your domain account, the domain administrator can access the IFC Filter Settings.

- Filter Settings > International Fire Code Settings
- Notification > International Fire Code (IFC) Notification Center

2.2.1 International Fire Code Settings

The IFC Manifest Settings for the IFC thresholds configuration are provided by default, and administrators can configure the content and filter options for your reports by:

- Location or Barcode
- Basic format enabled by default

And set up IFC reporting using Filter by Quantity options:

- All (default) - IFC report will contain all materials despite its volume or weight
- Above Threshold – IFC report will only contain materials that exceed the threshold
- Above MAQ – IFC report will only contain materials that exceed the MAQ
- Exclude empty hazard classes from the report – IFC report will only show hazard classes that contain at least one material

The IFC Settings are based on the two MAQ Hazard modes for Storage Indoor:

- MAQ per Physical Hazard
- MAQ per Health Hazard

IFC Setting	Attributes
Location or Barcode Setting for IFC Report	Location is the default setting, and the Barcode generates the essential columns in the IFC Report. When the IFC Storage Indoor option is applied in the IFC filtering, the IFC Report captures the respective datapoints on the report by Location. IFC Report Datapoints by Location ○ Material name, class, physical state, CAS number, base MAQ, inventory amount, calculated MAQ, unit, % of MAQ used, location, sprinkled, regulated cabinet, and factor IFC Report Datapoints by Barcode ○ Material name, class, physical state, CAS number, base MAQ, inventory amount, calculated MAQ, unit, % of MAQ used, location, sprinkled, regulated cabinet, and factor ○ Container barcode, container owner, container size, container volume/weight, container size unit retrieved from SISOT module
Basic	The Basic format (enabled by default)

The IFC Setting for MAQ per Physical Hazard

The IFC Settings allow the configuration of hazard category class specific MAQ per Physical Hazard threshold data fields for these columnar cells in the Storage Indoor Reference Table with the exception where N/A is applied by default.

- Solid pounds (cubic feet) - Material with physical state = Solid in pounds or cubic feet.
- Liquid gallons (pounds) – Material with physical state = Liquid in gallons or pounds.
- Gas cubic feet at NPT (pounds) – Material with physical state = Gas in cubic feet at NPT or pounds.
- Notification Threshold (%)

Placarding and Manifest Filter Settings

International Fire Code Settings

MAQ per physical hazard		MAQ per health hazard				
Hazard	Class	Group when the MAQ is exceeded	Storage Indoor Reference Table			Notification Threshold (%)
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas cubic feet at NPT (pounds)	
Aerosols	Level 2	H-3	NA	NA	500	75
	Level 3	H-3	NA	NA	1000	75
	Level 2 and 3	H-3	NA	NA	1000	75
Combustible dust	NA	H-2	NL	NA	NA	75
Combustible fiber	Loose	H-3	(100)	NA	NA	75
	Baled	H-3	(1000)	NA	NA	75
Combustible liquid	II	H-2 or H-3	NA	120	NA	75
	IIIA	H-2 or H-3	NA	330	NA	75
	IIIB	N/A	NA	13200	NA	75
Cryogenic Flammable	NA	H-2	NA	45	NA	75
Cryogenic Inert	NA	N/A	NA	NA	1	75
Cryogenic Oxidizing	NA	H-3	NA	45	NA	75
	Division 1.1	H-1	1	(1)	NA	75
	Division 1.2	H-2	1	(1)	NA	75

Report Settings

Configure the content and filters for your report

Report By
☒ Location (Default) ☐ BarcodeReport Format
☒ Basic (Default) Filter by Quantity
☒ All (Default) ☐ Above Threshold ☐ Above MAQ☒ Exclude empty hazard classes from the report

When enabled, the report will only show hazard classes that contain at least one material

Placarding and Manifest Filter Settings

International Fire Code Settings

MAQ per physical hazard		MAQ per health hazard				
Hazard	Class	Group when the MAQ is exceeded	Storage Indoor Reference Table			Notification Threshold (%)
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas cubic feet at NPT (pounds)	
Explosives	Division 1.3	H-1 or H-2	5	(5)	NA	75
	Division 1.4	H-3	50	(50)	NA	75
	Division 1.4G	H-3	125	NA	NA	75
	Division 1.5	H-1	1	(1)	NA	75
	Division 1.6	H-1	1	NA	NA	75
Flammable gas	Gaseous 1A and 1B (High BV)	H-2	NA	NA	1	10
	Gaseous 1B (Low BV)	H-2	NA	NA	162500	75
	Liquefied 1A and 1B (High BV)	H-2	NA	NA	(150)	75
	Liquefied 1B (Low BV)	H-2	NA	NA	(10000)	75
Flammable liquid	IA	H-2 or H-3	NA	30	NA	75
	IB and IC	H-2 or H-3	NA	1000	NA	10
Flammable liquid, combination (IA, IB, IC)	NA	H-2 or H-3	NA	1	NA	75
Flammable solid	NA	H-3	125	NA	NA	75
	Gaseous	N/A	NA	NA	NL	75

Report Settings

Configure the content and filters for your report

Report By
☒ Location (Default) ☐ BarcodeReport Format
☒ Basic (Default) Filter by Quantity
☒ All (Default) ☐ Above Threshold ☐ Above MAQ☒ Exclude empty hazard classes from the report

When enabled, the report will only show hazard classes that contain at least one material

Placarding and Manifest Filter Settings

International Fire Code Settings

MAQ per physical hazard		MAQ per health hazard				
Hazard	Class	Group when the MAQ is exceeded	Storage Indoor Reference Table			Notification Threshold (%)
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas cubic feet at NPT (pounds)	
Inert gas	Gaseous	N/A	NA	NA	NL	75
	Liquefied	N/A	NA	NA	NL	75
Organic peroxide	UD	H-1	1	(1)	NA	75
	I	H-2	5	(5)	NA	75
	II	H-3	50	(50)	NA	75
	III	H-3	125	(125)	NA	75
	IV	N/A	NL	NL	NA	75
	V	N/A	NL	NL	NA	75
Oxidizer	4	H-1	1	(1)	NA	75
	3	H-2 or H-3	10	(10)	NA	90
	2	H-3	250	(250)	NA	75
	1	N/A	4000	(4000)	NA	75
Oxidizing gas	Gaseous	H-3	NA	NA	1500	75
	Liquefied	H-3	NA	NA	(150)	75
Pyrophoric	NA	H-2	4	(4)	50	75
Unstable (reactive)	4	H-1	1	(1)	10	75
	3	H-1 or H-2	5	(5)	50	75
	2	H-3	50	(50)	750	75
	1	N/A	NL	NL	NL	75
Water reactive	3	H-2	5	(5)	NA	75
	2	H-3	50	(50)	NA	75
	1	N/A	NL	NL	NA	75

Report Settings

Configure the content and filters for your report

Report By
☒ Location (Default) ☐ BarcodeReport Format
☒ Basic (Default) Filter by Quantity
☒ All (Default) ☐ Above Threshold ☐ Above MAQ☒ Exclude empty hazard classes from the report

When enabled, the report will only show hazard classes that contain at least one material

IFC Settings MAQ Notification Threshold Values are editable allowing administrators to set their own respective thresholds.

MAQ per physical hazard		MAQ per health hazard				
Hazard	Class	Group when the MAQ is exceeded	Storage Indoor Reference Table			Notification Threshold (%)
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas cubic feet at NPT (pounds)	
Oxidizer	4	H-1	1	(1)	NA	75
	3	H-2 or H-3	10	(10)	NA	90
	2	H-3	250	(250)	NA	75
	1	N/A	4000	(4000)	NA	75
Oxidizing gas	Gaseous	H-3	NA	NA	1500	75
	Liquefied	H-3	NA	NA	(150)	75
Pyrophoric	NA	H-2	4	(4)	50	75
Unstable (reactive)	4	H-1	1	(1)	10	75
	3	H-1 or H-2	5	(5)	50	75
	2	H-3	50	(50)	750	75
	1	N/A	NL	NL	NL	75
Water reactive	3	H-2	5	(5)	NA	75
	2	H-3	50	(50)	NA	75
	1	N/A	NL	NL	NA	75

The IFC Setting for MAQ per Health Hazard

The IFC Settings allow the configuration of hazard category class specific MAQ per Health Hazard threshold data fields for these columnar cells in the Storage Indoor Reference Table. Here are the measurement units used by default according to the IFC manual:

- Solid pounds - Materials with physical state = Solid in pounds.
- Liquid gallons (pounds) - Material with physical state = Liquid in gallons or pounds.
- Gas Gaseous cubic feet at NPT (pounds) - Material with physical state = Gas gaseous in cubic feet or pounds.
- Gas Liquefied cubic feet at NPT (pounds) – Material with physical state = Gas liquefied in cubic feet or pounds.
- Notification Threshold (%)

Placarding and Manifest Filter Settings

International Fire Code Settings

MAQ per physical hazard

MAQ per health hazard

Hazard	Class	Group when the MAQ is exceeded	Storage Indoor Reference Table				Notification Threshold (%)
			Solid pounds	Liquid gallons (pounds)	Gas Gaseous cubic feet at NPT (pounds)	Gas Liquefied cubic feet at NPT (pounds)	
Corrosives	NA	H-4	5000	60	40	(150)	75
Highly toxics	NA	H-4	10	(10)	20	(4)	75
Toxics	NA	H-4	500	(500)	30	(150)	75

Report Settings

Configure the content and filters for your report

Report By

☒ Location (Default) ☐ Barcode

Report Format

☒ Basic (Default)

Filter by Quantity

☒ All (Default) ☐ Above Threshold ☐ Above MAQ

☒ Exclude empty hazard classes from the report

When enabled, the report will only show hazard classes that contain at least one material

Save Changes Cancel

The IFC Threshold Notification for MAQ per Health Hazard table is set to 75% Notification Threshold by default.

Placarding and Manifest Filter Settings **International Fire Code Settings**

MAQ per physical hazard **MAQ per health hazard**

Hazard	Class	Group when the MAQ is exceeded	Storage Indoor Reference Table				Notification Threshold (%)
			Solid pounds	Liquid gallons (pounds)	Gas Gaseous cubic feet at NPT (pounds)	Gas Liquefied cubic feet at NPT (pounds)	
Corrosives	NA	H-4	5000	60	40	(150)	75
Highly toxics	NA	H-4	10	(10)	20	(4)	75
Toxics	NA	H-4	500	(500)	30	(150)	75

Report Settings
Configure the content and filters for your report

Report By: ☒ Location (Default) ☐ Barcode

Report Format: ☒ Basic (Default) ☐ @

Filter by Quantity: ☒ All (Default) ☐ Above Threshold ☐ Above MAQ

☒ Exclude empty hazard classes from the report

When enabled, the report will only show hazard classes that contain at least one material

[Save Changes](#) [Cancel](#)

Editable Notification Threshold

Placarding and Manifest Filter Settings **International Fire Code Settings**

MAQ per physical hazard **MAQ per health hazard**

Hazard	Class	Group when the MAQ is exceeded	Storage Indoor Reference Table				Notification Threshold (%)
			Solid pounds	Liquid gallons (pounds)	Gas Gaseous cubic feet at NPT (pounds)	Gas Liquefied cubic feet at NPT (pounds)	
Corrosives	NA	H-4	5000	60	40	(150)	75
Highly toxics	NA	H-4	10	(10)	20	(4)	75
Toxics	NA	H-4	500	(500)	30	(150)	75

The Notification Threshold setting values are used to trigger the respective notification when the MAQ per CA for hazardous material when it is approaching the MAQ. This alert will be displayed within the UI IFC filtered results grid and the folder tree structure identifying the specific folder location.

Chemeritus

Health Hazard Indoor Storage ☒ Regulatory Reports [Print](#) [Share](#) [Download](#)

Search for a folder... Expand Collapse

All materials for cwsadministrator

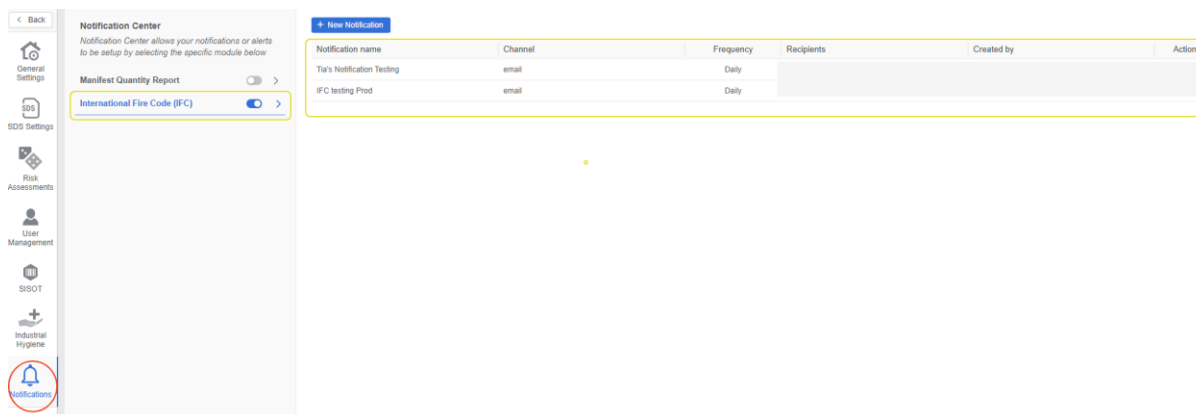
- cryogenic oxidizing
- Madhuri
 - Corrosive Gaseous
 - Corrosive Liquefied
 - Highly toxic Gaseous
 - Highly toxic Liquefied
 - Toxic Gaseous
 - Toxic Liquefied
 - Unstable reactive class 2 liquid
 - Unstable reactive class 3 liquid
 - Unstable reactive class 3 solid
 - Water reactive class 2 solid
 - Water reactive liquid class 2
 - Water reactive solid class 3
 - water reactive liquid class 3
- Sai
 - Inert gas Gaseous
 - Inert gas Liquefied

Select a highlighted folder to view the International Fire Code Health Hazard report details

- !** Locations marked with an exclamation mark (!) contain hazardous materials and are not designated as Control Areas.
- ✓** Green-highlighted locations indicate that Total Inventory Amount is below the notification threshold for any hazard class within the Control Area.
- ⚠** Yellow-highlighted locations indicate that Total Inventory Amount is below the Calculated MAQ (a, d, e) but exceeds the notification threshold for one or more hazard class within the Control Area.
- ✗** Red-highlighted locations indicate that the Total Inventory Amount for one or more Hazard Classes is equal or exceeds the Calculated MAQ (a, d, e) in the Control Area.
- N** Red-highlighted locations and appends 'N' indicate that the location's level is -3 or lower, and it is not allowed under IFC regulation. Filter grid won't be displayed for any folders with levels below -2.

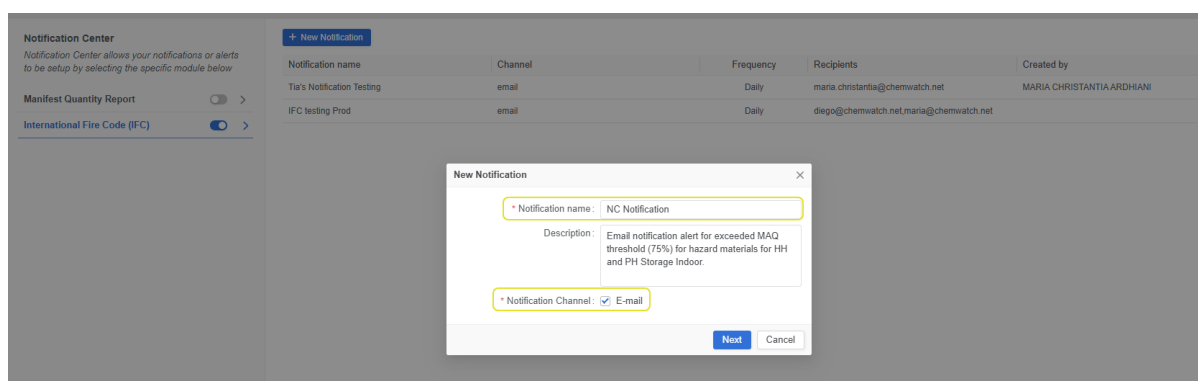
2.2.2 Notification Settings

The **Notifications module** allows the set-up of the Notification Center to send alerts.

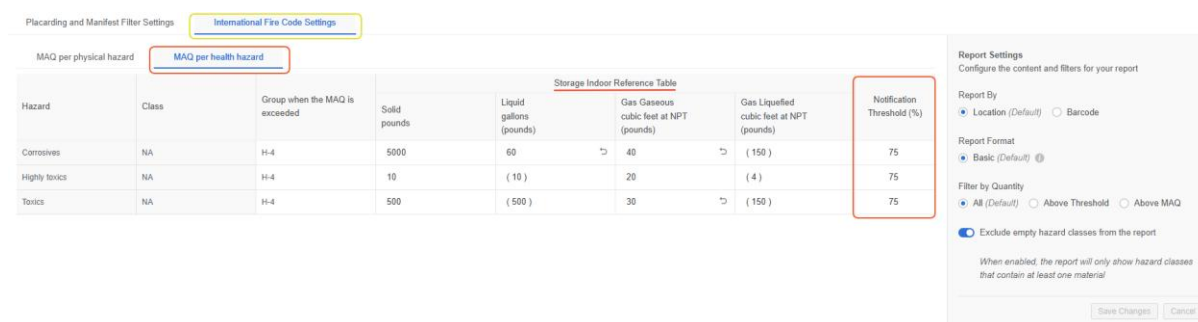


The notification properties incorporate the following attributes when creating an email alert notification.

- Notification Name
- Channel
- Frequency
- Recipients (Email Addresses)



The Notification Settings are dependent on the notification threshold set at 75 % by default in the MAQ table in the Filter Settings/International Fire Code Settings.

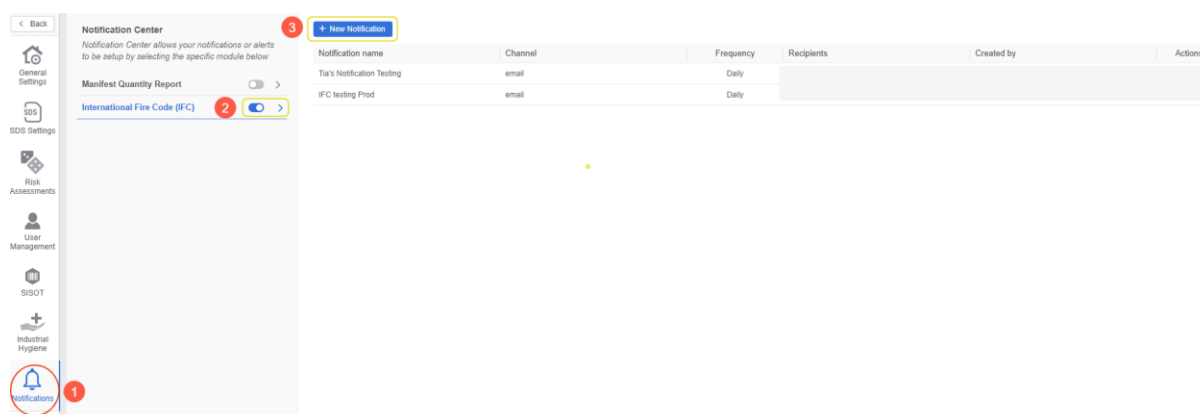


The IFC Report will only include hazard classes that exceed the defined notification threshold in the controlled areas, with information that is set on the Report Settings.

The steps below show how to create a notification alert and assign the respective recipient and identify the specific locations (IFC controlled areas) attribute that will be used for the alert.

Steps: Create a Notification (Alert)

1. Open **Notifications** module
2. Switch on the International Fire Code (IFC) option using the toggle button
3. Click the **+ New Notification** button to create the notification alert.
4. Type the **"Notification Name"** in the required text field.
5. Enter your **Description** for the notification in the description text field. Note that this is an optional field.
6. The **Notification Channel Email** checkbox is automatically selected by default . This is a required field.
7. Click the **Next** button to assign recipient(s) and choose a folder location.
8. Select the **"To"** text field to select the recipient's email address from the list of user email addresses who will be the primary recipient of the notification alert message.
9. Click on the **"CC"** text field to select the recipient's email address from the list of user email addresses who will be sent a copy of the email notification alert message.
10. Type the notification **Subject** in the required field to title your email notification alert message.
11. Select the email address to apply for the **"Reply To"** alert message recipient.
12. Review the email notification **"Comments"** in the description field.
13. Select the **Time Zone** dropdown field to apply the appropriate time zone/region if the default zone is not applicable.
14. Select the **Frequency** dropdown arrow and select the applicable notification frequency from the options:
 - ☐ Once-off
 - ☐ Daily
 - ☐ Weekly
 - ☐ Fortnightly
 - ☐ Monthly
 - ☐ Quarterly
 - ☐ Half Yearly
 - ☐ Yearly
 - ☐ Or set a Specific Date
15. Set the **Time** (hr.).
16. Set the monthly **Date Range** (from and to fields) for the frequency.
17. Select the **IFC Location folder checkbox** to apply the email notification alert when the MAQ threshold is exceeded for the hazard class.
18. Click the **Save** button.



Notification Center
Notification Center allows your notifications or alerts to be setup by selecting the specific module below

Manifest Quantity Report ☐ >
International Fire Code (IFC) ☒ >

+ New Notification

Notification name	Channel	Frequency	Recipients	Created by
Tia's Notification Testing	email	Daily	maria.christantia@chemwatch.net	MARIA CHRISTANTIA ARDHIANI
IFC testing Prod	email	Daily	diego@chemwatch.net,maria@chemwatch.net	

New Notification

* Notification name: NC Notification 4

Description: Email notification alert for exceeded MAQ threshold (75%) for hazard materials for HH and PH Storage Indoor. 5

* Notification Channel: ☒ Email 6

7 Next Cancel

Notification Center
Notification Center allows your notifications or alerts to be setup by selecting the specific module below

Manifest Quantity Report ☐ >
International Fire Code (IFC) ☒ >

+ New Notification

New Notification

* To: 8

CC: 9

From: donotreply@chemwatch.net

* Subject: NC Notification 10

Reply To: 11

Comments: Email notification alert for exceeded MAQ threshold (75%) for hazard materials for HH and PH Storage Indoor. 12

* Time Zone: UTC+1 British Summer Time - London 13

* Frequency: Select Frequency 14

* Time: Time 15

* Date Range: Start date 16 End date

Search for a folder... Expand Collapse

Please, select the Control Area(s) for the notification:

- AO
- AO I
 - B1
 - CA3
 - CA4
 - CA5
 - CR
 - SF
- AO P
- APAC
- Australia
 - Victoria
 - CW Chemical (Occupancy)
 - Clock Tower (Building)
 - Level 1 (CA 1)
 - Level 1 (CA 2)
 - Level 2 (CA 1)
 - Liberty Tower (Building)

Save Back

Note that if the user recipients “To” and/or the “Reply To” do not have rights to the IFC folder location selected, the notification fields will display a message in red highlight to review. It will not be possible to save the notification alert until the applicable user recipients invalid email addresses are validated (correct) to receive the notification alert message.

New Notification

* To: cedric@chemwatch.net x cedric x
Invalid email

CC: diego@chemwatch.net x diego x

From: donotreply@chemwatch.net

* Subject: NC Notification

Reply To: maria.christantia@chemwatch.net x maria x
Invalid email

Comments: Email notification alert for exceeded MAQ threshold (75%) for hazard materials for HH and PH Storage Indoor.

* Time Zone: UTC+1 British Summer Time - London

* Frequency: Daily

* Time: 03:00

* Date Range: 31/05/2026 → 30/06/2026

Search for a folder... Expand Collapse

Please, select the Control Area(s) for the notification:

- AO
- AO I
 - ☒ B1
 - CA3
 - CA4
 - CA5
 - CR
 - SF
- AO P
- APAC
- Australia
 - Victoria
 - CW Chemical (Occupancy)
 - Clock Tower (Building)
 - ☐ Level 1 (CA 1)
 - ☒ Level 1 (CA 2)
 - ☐ Level 2 (CA 1)
 - Liberty Tower (Building)

Save Back

New Notification

To:

CC:

From:

Subject:

ReplyTo:

Comments:

Time Zone:

Frequency:

Time:

Date Range: →

Search for a folder...

Expand Collapse

Please, select the Control Area(s) for the notification:

AO

AO I

B1

CA3

CA4

CA5

CR

SF

AO P

APAC

Australia

Victoria

CW Chemical (Occupancy)

Clock Tower (Building)

Level 1 (CA 1)

Level 1 (CA 2)

Level 2 (CA 3)

18

Save

Back

2.3 IFC Folder Hierarchy, Permissions and Privileges

Folder permissions are typically assigned to users responsible for managing specific sites, areas, and storage locations. The domain administrator maintains full system access and control. User access configuration, folder permissions, IFC settings, and other modular features are administered by the designated system administrator within the business or organisation.

The primary objective is to structure folders logically by considering the system's folder properties and available configuration options. This approach supports efficient data retrieval while minimising excessive nesting of subfolders. The IFC folder hierarchy principle helps businesses and organisations implement a logical and structured system that reflects the geographical, operational, or functional layout of the organisation.

A typical IFC folder hierarchy follows a to-down structure where broad organisational levels are progressively divided into more specific locations categorised into the following levels:

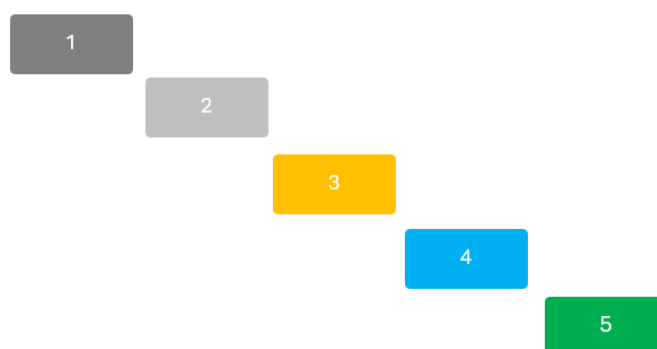
1. Business or organisation
2. Site or facility
3. Area or department
4. Storage location or inventory
5. Container or material

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IFC Folder Hierarchy



This approach improves data accessibility, simplifies the management of hazardous materials in compliance with IFC code requirements, and enhances reporting and data retrieval processes. This logical structure organises folders in a way that mirrors real world business operations and physical locations where additional sites, departments or storage areas can be added without restricting the system.

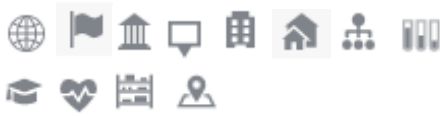
The IFC folder hierarchy works in conjunction with IFC occupancy criteria by organising facilities, areas, and storage locations according to their operational use, occupancy classification, and hazardous material activities. This structured approach enables businesses and organisations to manage hazardous materials, compliance records, and safety information in alignment with the requirements of the international fire code.

By grouping folders according to occupancy types, such as laboratories, warehouses, manufacturing areas, offices, or storage facilities, organisations can more effectively monitor hazardous material quantities, apply appropriate fire and safety controls, manage reporting obligations, and support emergency response planning. The hierarchy also improves data retrieval, user access management, regulatory compliance, and overall operational efficiency while maintaining a logical representation of the physical and functional structure of the organisation.

Folder permissions within the system can be assigned according to operational responsibilities, ensuring users have access only to relevant folder locations and data. Standardised naming conventions further support efficient retrieval of chemical inventories, compliance records, and emergency-related information. When creating folders, there are folder types that can be selected for specific conditional properties.

- Administrative folder
- Occupancies
- Storage folder
- Waste folder

The table below provides a summary of the IFC folder types and respective use in the system.

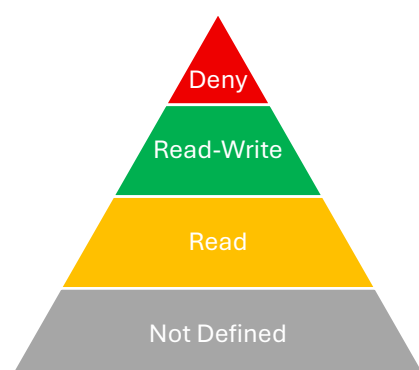
Folder	Folder Type	Use
	Favorites	Favorites folder attribute for quick and convenient navigation providing direct access to commonly used locations.
	Grey folders	Administrative and Occupancies folders. Grey folders are not assigned to store materials by default.
	Green folders	Storage folder
	Shop folder	Storage folder
	Red folders	Waste Dispatch Area, Waste Intermediate Area

The system provides the following folder permissions:

- Read
- Read-write
- Deny

These types of folder permissions hold specific weight with regards to the level of impact to user security to folders and material data handling or distribution. When a folder is created or added to the folder tree, the “Store Materials Checkbox” must align with the SOF to ensure the IFC logic applies to that folder and subsequent inventory contained in that SOF.

Folder Permission Weight - Hierarchy of Control



IFC functionality and the relative folder permissions are administered by the domain administrator who has full access to manage IFC filter settings by default. This enables the domain administrator to assign or revoke specific privileges for other users.

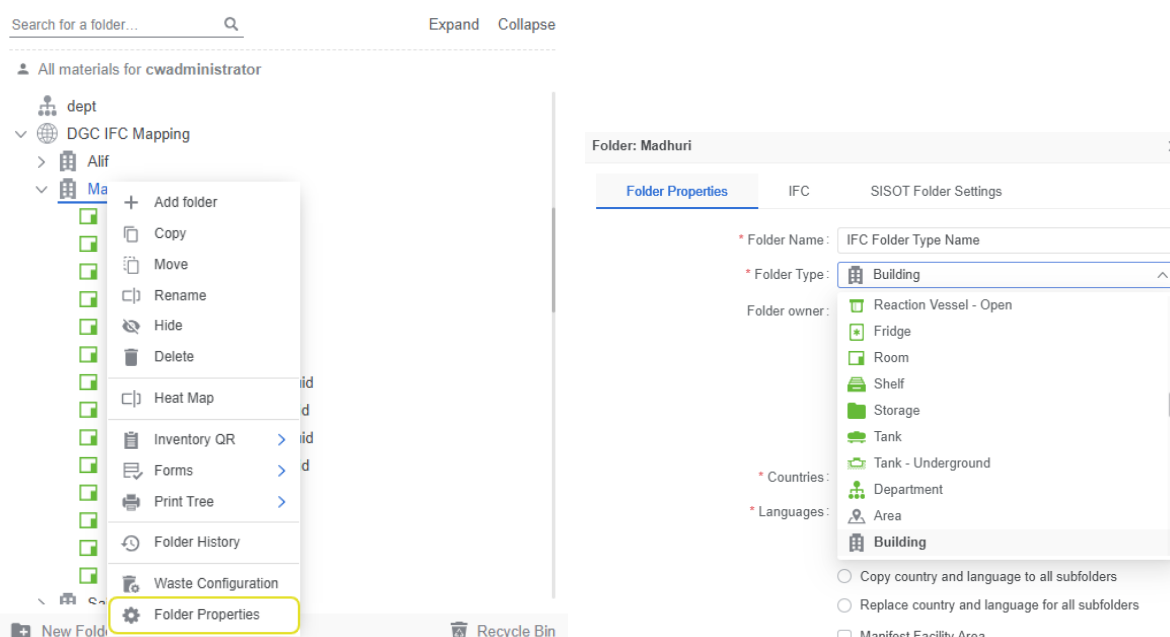
IFC Function

Permission and Privilege Attributes

 Domain Administrative Role	- Full access with read-write permission to the entire system - Manage IFC MAQ and Notifications settings - Authority to set up users' access, assign privileges, modules, and folder permissions. - Ability to set up IFC folder properties for all sites and controlled areas - Ability to run IFC Regulatory Reports and IFC datapoints on the Report Generator Method Builder
 IFC User Role	- Ability to edit folders and folder properties - Add/delete materials and input volume/weight - Generate IFC reports using the Regulatory Reports filter options for Storage Indoor - Access to Report Generator method builder to generate IFC report data for Health Hazard and Physical Hazard Indoor Storage
 Other User Roles	Other user roles are not permitted to use IFC Filter functionality, will not be able to use this feature unless their user role includes IFC Filter privileges.

2.3.1 IFC Folder Properties

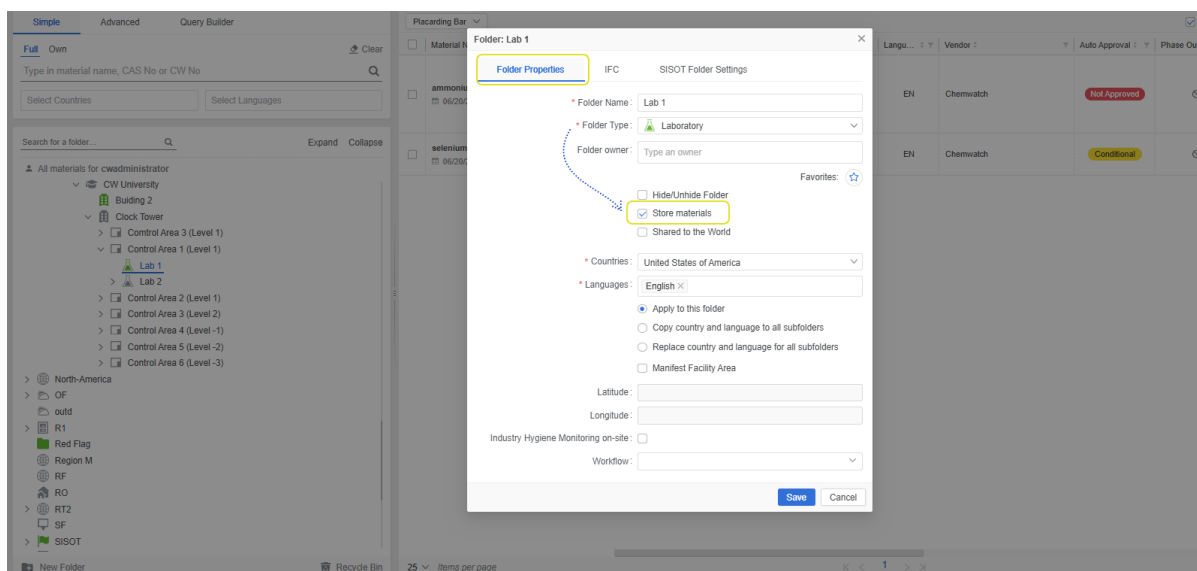
The folder right click functionality provides a dropdown context menu to set up the folder properties for a type of folder.



IFC Folder Types

- | | |
|---|--|
| <ul style="list-style-type: none"> ○ Assembly Occupancy ○ Business Occupancy ○ Educational Occupancy ○ Factory Industrial Occupancy ○ Institutional Occupancy ○ Mercantile Occupancy ○ Residential Occupancy ○ Storage Occupancy ○ Area ○ Building ○ Cabinet ○ Cabinet Regulated ○ Country ○ Department ○ Detached Building ○ Explosive Magazine ○ Freezer ○ Fridge | <ul style="list-style-type: none"> ○ Fume Hood ○ Laboratory ○ Laminar Flow Cabinet ○ Mixing Vessel-Closed ○ Mixing Vessel – Open ○ Outdoor ○ Reaction Vessel = Closed ○ Reaction Vessel – Open ○ Region ○ Room ○ Shelf ○ Shop ○ Site ○ State ○ Storage ○ Tank ○ Underground ○ Waste - Dispatch Area ○ Waste – Intermediate Area |
|---|--|

The folder types are integrated with folder icons that will display in the folder structure for ease of identification of the types of folders in the business or organisational site map (folder structure) and when selected will display the respective material inventory if the folder is allowed to store materials.



There are folder property conditions or rules that must be considered when creating a folder structure when it applies to IFC folders for physical locations, buildings, occupancy folders, administrative folders and special cases for outdoor folders and cabinet regulated folders. The following table summarises these conditions.

The screenshot displays the Chemeritus IFC interface. On the left, a folder tree shows a hierarchy starting with 'North America', followed by 'United States', 'Alaska', 'Juneau', 'CW University', 'Building 2', 'Clock Tower', 'Control Area 3 (Level 1)', 'Control Area 1 (Level 1)', 'Lab 1', and 'Lab 2'. A blue arrow points from 'Lab 1' to a material entry in the main table. The main table lists materials with columns for Material Name, CAS No, Hazard, Hazard Codes, Country, Language, and Vendor. Two materials are shown: 'ammonium dichromate' and 'selenium hexafluoride'. The right sidebar contains filters for 'Group Own By', 'Data availability', 'Vendors', 'Countries', and 'Languages'.

IFC Folder Type

Conditions

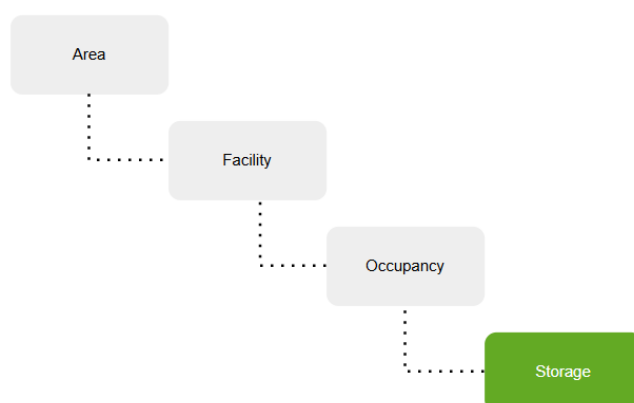
Physical Locations (L) or Storage Folders	A storage folder can be inside other storage folders such as cabinet, fume hood, laboratory, mixed vessel, waste, tank, room, freezer, fridge, department.
Buildings	- A building cannot be inside another building folder. - A building folder can be inside an occupancy folder. - Multiple building folders can be inside an occupancy folder such as a detached building.
Occupancy Folders (O)	- An occupancy folder cannot be inside another occupancy folder. - An occupancy folder can be inside an administrative folder.
Administrative Folders (A)	An administrative folder cannot be inside these types of folders: - Occupancy folder - Building folder - Cabinet regulated folder - Outdoor folder - Location folder
Outdoor Folders (O)	An outdoor folder cannot be placed inside any building folder.
Cabinet Regulated Folders (CRF)	- A CRF cannot be inside another regulated folder. - No other folder type can be placed inside a Regulated Cabinet.

2.3.2 Create an IFC Folder Structure

An IFC folder structure in the system is a digital representation of actual sites at regional, country and/or state level of business operations to the n^{th} nested node allowed in the system based on IFC compliance. The SOF is a folder used to represent an area, facility, building or room that is classified as a storage occupancy under the IFC. The objective of an SOF is to organise and manage hazardous material inventories, occupancy information and compliance data within those locations that are mainly used for storage activities within premises. The folder structure enables hazardous materials to be evaluated within the context of the occupancy they are stored in and determines whether storage quantities exceed the allowable regulatory thresholds and if so, generate the compliance reports required by:

- Monitoring chemical inventories
- Identify hazardous material classifications
- Alignment of inventory management with IFC occupancy classifications
- Review aggregate storage quantities
- Compare hazardous material quantities against the IFC limits
- Maintain Safety Data Sheets
- Support hazardous material inventory reporting
- Facilitate notifications and compliance with permit requirements
- Emergency preparedness

The IFC folder structure can be represented in the system as best practice using the following nested folder arrangement.



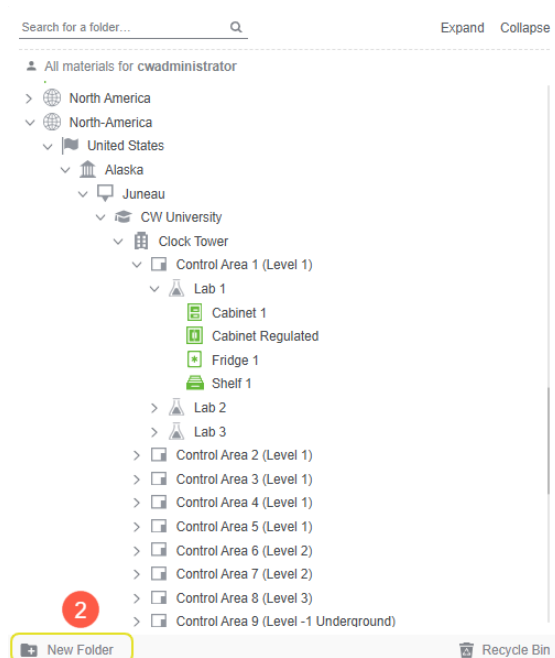
The following steps illustrate how to create an IFC folder hierarchy based on Area, Facility, Occupancy and Storage folders.

Folder Add/Edit Function Attribute

Add (+) Folder	Users can create (add) an IFC folder as a parent folder or on any node. All newly created folders will default to empty folders.
IFC Folder Properties	The IFC folder properties enable users to edit IFC folders and respective attributes ensuring that the IFC logic is applied to the IFC folders.

Steps: How to Create Area Folder

1. Open **Home** module
2. Click the **New Folder** button located on the bottom left corner of the folder panel to create a folder.
3. The folder properties window opens and defaults to the folder properties tab. Type the **Name of the folder** in the folder name text field (note that this is a required field), e.g., Area.
4. Click on the **Folder Type** drop down arrow to list the types of folders.
5. Scroll down the list to select the **folder type**, e.g., Area or Site .
6. Folder Owner is optional. Click this field to set the owner (checkbox ☐ of the folder from the dropdown users list.
7. **Store materials checkbox** ☐ is unchecked by default for the Area folder type to not allow the storing of materials.

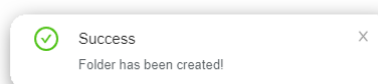


8. Select the **Country** applicable for the folder to associated material SDS.
9. Select the **Language** applicable to associate material SDS.
10. Other optional folder properties include:
 - Applying the current folder properties to this new folder to be created
 - Copying country and language for all subfolders
 - Replacing country and language for all subfolders

Use the radio buttons to mark respective option of interest to apply those attributes to subfolders.

11. Click the **Create** button

A message confirms the newly created Area folder.



The 'Add New Folder' dialog box is shown with the 'Folder Properties' tab selected. The fields and options are as follows:

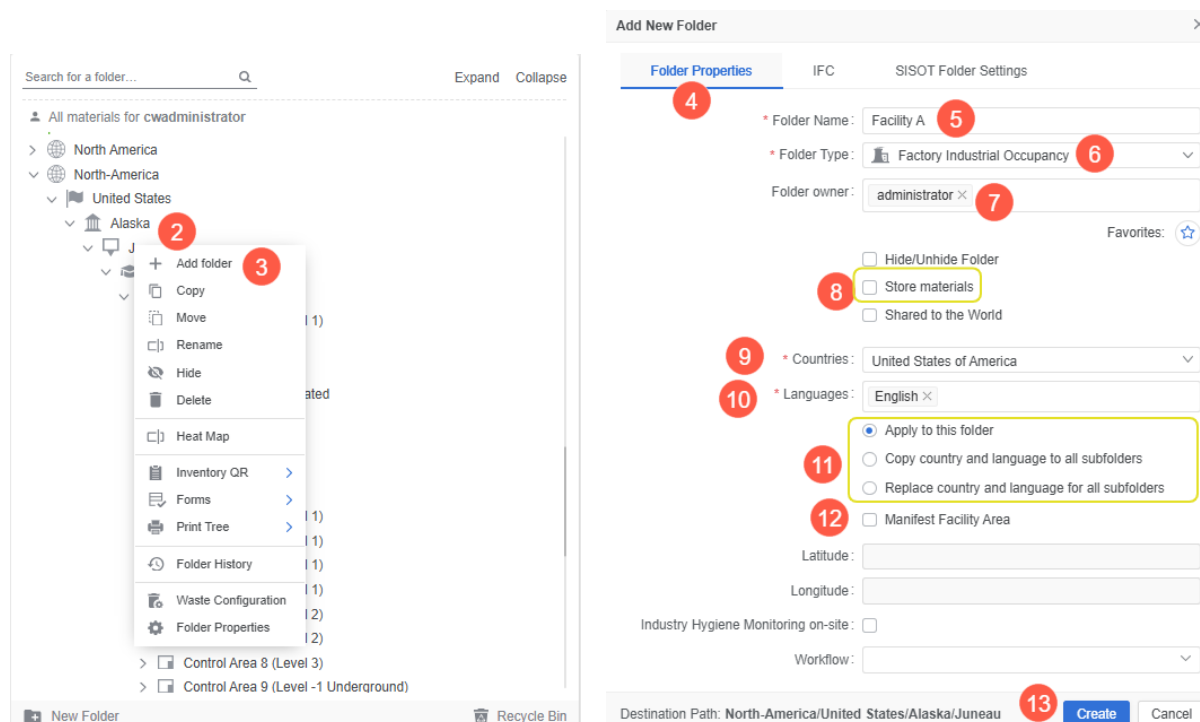
- * Folder Name: Area (red circle 3)
- * Folder Type: Area (red circle 5)
- Folder owner: user1 (red circle 6)
- Hide/Unhide Folder: ☐
- Store materials: ☐ (red circle 7)
- Shared to the World: ☐
- * Countries: Australia (red circle 8)
- * Languages: English (red circle 9)
- Apply to this folder: ☒ (red circle 10)
- Copy country and language to all subfolders: ☐
- Replace country and language for all subfolders: ☐
- Manifest Facility Area: ☐
- Latitude: (empty field)
- Longitude: (empty field)
- Industry Hygiene Monitoring on-site: ☐
- Workflow: (empty dropdown)
- Destination Path: Australia (red circle 11)
- Create button (red circle 11)
- Cancel button

i If a user does not have the “Edit Rights” folder permission to create/edit folders, consult with the administrator of the system within your business or organisation to grant the respective folder permission (Read-Write), including consideration to renaming folders privilege.

Create a Facility/Occupancy Folder

The facility folder will be nested under the Area Folder.

Steps: How to Create a Facility or Occupancy Folder



1. Open **Home** module
2. Right click on the **Area/Site Folder** / to add a subsidiary folder, Facility folder.
3. Click the **Add Folder** option from the context menu.
4. The folder properties window opens and defaults to the folder properties tab. Type the **Name of the folder** in the folder name text field (note that this is a required field), e.g., Facility A.
5. Click on the **Folder Type** drop down arrow to list the types of folders.
6. Scroll down the list to select the **folder type**, e.g., Factory Industrial Occupancy .

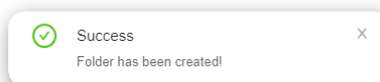
9. Select the **Country** applicable for the folder to associated material SDS.
 10. Select the **Language** applicable to associate material SDS.
 11. Other optional folder properties include:
 - Applying the current folder properties to this new folder to be created
 - Copying country and language for all subfolders
 - Replacing country and language for all subfolders
 - Manifest Facility Area checkbox ☐
- Use the radio buttons to mark respective option of interest to apply those attributes to subfolders.
12. Set the folder as a Manifest Facility Area by selecting the checkbox ☐ if applicable.
 13. Click the **Create** button .

A message confirms the newly created Area folder. Note that the selected occupancy type of folder

7. Folder Owner is optional. Click this field to set the owner (checkbox ☐ of the folder from the dropdown users list.

8. **Store materials checkbox** ☐ is unchecked by default for the Area folder type to not allow the storing of materials.

activates the IFC tab in the folder properties window.



Create an IFC Storage Folder

The IFC storage folder will be nested under the Facility/Occupancy Folder/Building.

Steps: How to Create an IFC Storage Folder

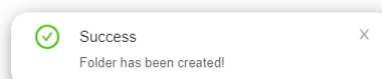
1. Open **Home** module .
2. Right click on the Facility/Occupancy Folder/**Building folder type** to add a subsidiary folder, Storage Room folder.
3. Click the **Add Folder** option from the context menu.
4. The folder properties window opens and defaults to the folder properties tab. Type the **Name of the folder** in the folder name text field (note that this is a required field), e.g., Storage Room.
5. Click on the **Folder Type** drop down arrow to list the types of folders.
6. Scroll down the list to select the **folder type**, e.g., Room .
7. Folder Owner is optional. Click this field to set the owner (checkbox ☐ of the folder from the dropdown users list.
8. **Store materials checkbox** ☐ is checked by default for the storage type of folder type to allow the storing of materials.

9. Select the **Country** applicable for the folder to associated material SDS.
10. Select the **Language** applicable to associate material SDS.
11. Other optional folder properties include:
 - Applying the current folder properties to this new folder to be created
 - Copying country and language for all subfolders.
 - Replacing country and language for all subfolders

Use the radio buttons to mark  respective option of interest to apply those attributes to subfolders.

12. Select the Manifest Facility Area checkbox if applicable to this folder.
 - Manifest Facility Area checkbox ☐
13. Click the **Create** button .

A message confirms the newly created Area folder.



The screenshot shows the 'Add New Folder' dialog in the IFC application. The left pane displays a folder tree with 'Alaska' selected. A context menu is open over 'Alaska', with 'Add folder' highlighted. The right pane shows the 'Folder Properties' tab. Red circles 1-13 highlight the following steps:

- Search for a folder...
- Click on the folder icon in the tree.
- Click on 'Add folder'.
- Click on the 'Folder Properties' tab.
- Enter the folder name 'IFC Storage Room'.
- Select 'Room' as the folder type.
- Enter the folder owner.
- Check 'Store materials'.
- Select 'United States of America' as the country.
- Select 'English' as the language.
- Select 'Apply to this folder'.
- Uncheck 'Manifest Facility Area'.
- Click the 'Create' button.

2.3.4 Set IFC Folder Properties Attributes

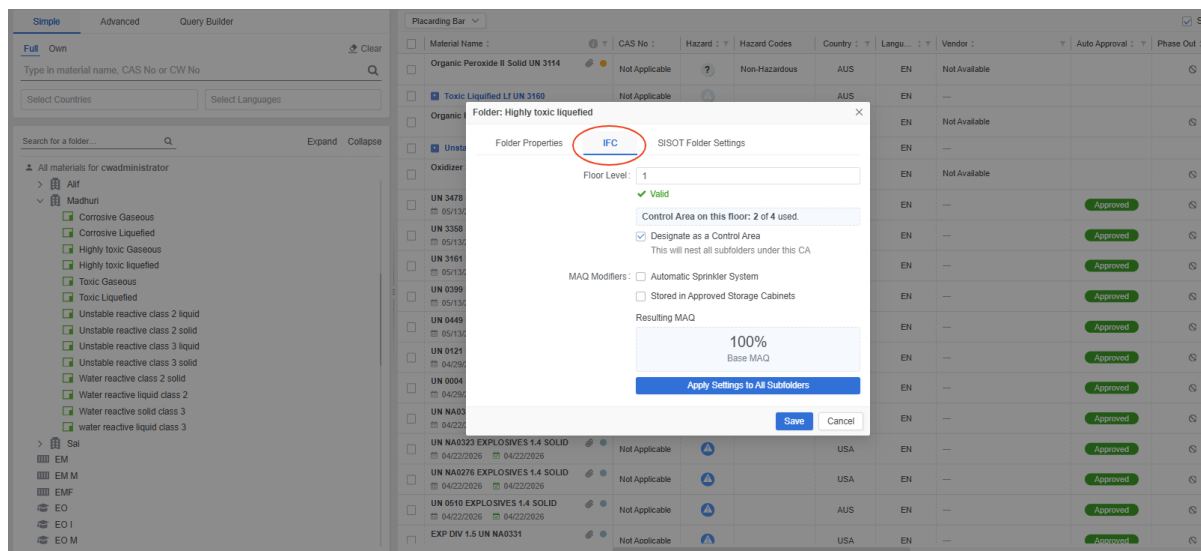
The IFC Folder Properties Tab

The IFC folder properties tab window provides the validity of the FL, CA and MAQ Modifiers and apply the settings to the respective folder.

IFC Folder Property	Attribute
FL <i>(A folder can be assigned to a specific floor level (1-99 or -1 to -99))</i>	- The selected folder's designated FL value, e.g., 1. (default value validated  Valid) - The number of CA used on the assigned FL - Designate IFC folder as a CA, which will nest all subfolders under CA is marked by default ☒
MAQ Modifiers <i>(An IFC folder can also be assigned as sprinkled or controlled folder)</i>	The FL is used as a modifier for calculations when available in the CA folder. If not, the IFC filter will use Level 1 as the default value for calculations. More information on the % of the MAQ per CA based on FL is available on the IFC Code manual Table 5003.8.3.2. Moreover, the MAQ Modifiers are listed below: Use the checkbox ☐ to apply MAQ Modifiers settings: - Equipped with Automatic Sprinkler System - Stored in Approved Storage Cabinets

By applying one of the MAQ Modifiers, it multiplies the Base MAQ by 2. Hence, by applying both of the MAQ Modifiers, it multiplies the Base MAQ by 2x2.

The Base MAQ = 100%.



The IFC storage folder properties will be set in the IFC Folder Properties tab to ensure the storage folder is aligned with the IFC Logic.

Steps: How to Apply IFC Folder Properties Attributes

1. Open **Home** module .
2. Right click on the Facility/Occupancy Folder/Building/**Floor Level** folder type to set IFC folder properties attributes.
3. Click the **Folder Properties**  option from the context menu.
4. The folder properties window opens and defaults to the folder properties tab. Click on the **IFC Tab**.
5. The Controlled Area on the floor level will be counted if it is designated as a CA and controlled areas cannot be inside another controlled area. **Floor Level 1** is designated as a control area in this segment as **valid** . The floor level value will be shown as used.
6. Select the checkbox ☐ **Designate as a Control Area**. Note that the CA cannot be inside another CA.

7. Select the checkbox for **MAQ Modifiers** for the applicable modifier option checkbox. If modifiers are selected, this displays the Resulting Base MAQ % based on logic calculations.

MAQ Modifiers options:

- ☐ Automatic Sprinkler System
- ☐ Stored in Approved Storage Cabinets

8. Click the **Apply Settings to All Subfolders** button.
9. Click the **Save**  button.

A message displays confirmation for the updated folder.

 Success
Folder has been updated!

Search for a folder... Expand Collapse

All materials for **cwadministrator**

- Building A
 - Control Area
 - IFC Storage
 - Lab 1
 - Cabinet
 - Cabinet
 - Fridge 1
 - Shelf 1
- Juneau
- CW University
 - Clock Tower
 - Control Area
 - Lab 1
 - Cabin
 - Cabin

New Folder

2026

2

3

4

5

6

7

8

9

Folder Properties

IFC

SISOT Folder Settings

Floor Level: 1

Valid

Control Area on this floor: 1 of 4 used.

Designate as a Control Area
Controlled area cannot be inside another Controlled area

MAQ Modifiers:

- ☐ Automatic Sprinkler System
- ☐ Stored in Approved Storage Cabinets

Resulting MAQ

100%
Base MAQ

Apply Settings to All Subfolders

Save Cancel

Folder: Building A

Folder Properties

IFC

SISOT Folder Settings

Floor Level: 1

Valid

Control Area on this floor: 1 of 4 used.

Designate as a Control Area
Controlled area cannot be inside another Controlled area

MAQ Modifiers:

- ☐ Automatic Sprinkler System
- ☐ Stored in Approved Storage Cabinets

Resulting MAQ

100%
Base MAQ

Apply Settings to All Subfolders

Save Cancel

3.0 Search and Add Material into IFC Folder

This topic will cover the following objectives.

- Search for material
- Add material to a folder
- Advanced search by CAS number
- Advanced search by CW number
- Advanced search by Vendor
- Advanced search by Dangerous Goods
- Query Builder Search



The next activities illustrate how to search for materials, add materials into folders and assign volume/weight of materials.

3.1 Search for Materials

The Chemwatch database contains millions of SDS. Any term search conducted in the full collection may result in numerous materials, especially for pures and if country/language search filters are relaxed.

Searching for materials can be achieved through the various search modes available in the search panel. The search panel contains the following search modes:

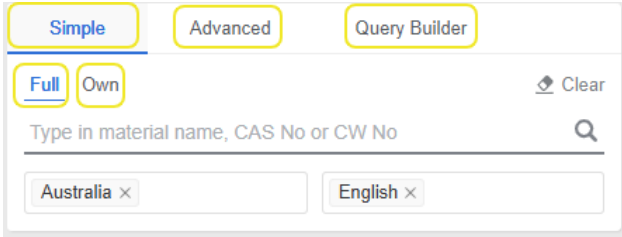
- Simple
- Advanced
- Query Builder

The table below provides a summary of the search modes.

Search Mode	Details
Simple	Search for materials by material name or product name, CAS No. or CW No.
Advanced	Search for materials by name, CAS No, CW No, CAS No (Ingredient In), DG Class, Packing Group, R-Code, Sub-Risk, UN No, EINECS, Part No, Vendor, Structure, Poison Schedule, Cat No. and Hazard Rating.
Query Builder	Search for materials by using an existing query (determined by the type of operators and query string). Note that a query must first be created before conducting any subsequent searches.

There are two types of reference database search paths: namely, **Full** and **Own**.

Reference Search	Description
Full	This is the Chemwatch full search engine, an entire collection of millions of SDS for pure chemicals, mixtures, and products. The full search is applicable in simple, advanced and query builder modes.
Own	This is the customer's own reference inventory, or their own materials registered in the Chemwatch database. The own search is applicable in Simple, Advanced and Query Builder modes.
Autocomplete	Autocomplete search is applied to both the Full and Own search engines. It enables users to quickly pick distinct variants of possible material names drawn from the search term to find exact or close matches.



Search results will show all the material levels:

- Material names
- Cat names
- Grouping by CW number

The information will be presented on a grid with following columns.

• Material Name • CAS No • CW No • Vendor • Country • Language • Volume/Weight	• Hazard Rating • DG Class, Subrisk • Packing Group • Regulatory Burden • Approvals • Tags • Notes
--	--

The search results grid displays a slide panel on the right hand-side layer of the user interface to further filter the data by:

• Grouping by CW number • Exact match sort • Classification data availability; Chemwatch, No Data, VGD	• Vendors • Countries • Languages
--	---

☐ Material Name	☐ CW No	☐ Vendor	☐ Country	☐ Lang	☐ CAS No	☐ Issue Date	
☐ acetone	1090	Chemwatch	— ANY —	— ANY —	67-64-1	—	
☐ Acetone	4088-849	AdvanSix	USA	EN	—	—	
☐ Acetone	21934	Sigma-Aldrich (Merck)	GBR	EN	67-68-5	—	
☐ Acetone	1230	Greenfield Global	USA	EN	—	—	
☐ Damar Acetone	5016-94	Chemwatch	— ANY —	— ANY —	Not Applicable	10/12/2021	
☐ furfuryl acetone	7112-82	Chemwatch	— ANY —	— ANY —	623-15-4	—	
☐ benzoylacetone	50807	Chemwatch	— ANY —	— ANY —	93-91-4	—	
☐ citronellyl acetone	4186747	Chemwatch	— ANY —	— ANY —	4433-36-7	23/02/2020	
☐ thioacetone	4201-46	Chemwatch	— ANY —	— ANY —	4756-05-2	—	
☐ BDH Acetone	6066-24	Chemwatch	— ANY —	— ANY —	Not Applicable	10/03/2023	
☐ Acetyl Acetone	2310	Alfa Aesar (a part of Thermo Fishe	USA	ES	—	—	
☐ Benzylacetone	39405	Fisher Scientific	FRA	FR	—	—	
☐ Ledipasvir acetone	78-1187	BLD Pharmatech	DEU	EN	—	—	
☐ Hydroxyacetone	39268-7	BLD Pharmatech	CHN	EN	—	—	
☐ Acetone azine	31257-5	AHH Chemical	CHN	EN	—	—	
☐ Fluoroacetone	39841-7	Acros Organics (part of Thermo FI	FRA	FR	—	—	
☐ Piperonyl acetone	4047-36	ApexBio	USA	EN	—	—	
☐ Acetone Standard	2722430	Restek	GBR	EN	—	—	
☐ Nitroacetone	10-23752	Dinochem	CHN	EN	—	26/09/2017	
☐ Acetone-d7	1090-1	Alfa Aesar (a part of Thermo Fishe	FIN	FI	—	—	
☐ GERANYL ACETONE	68488-4	Penta International	USA	EN	—	—	

☒ Grouping by CW No
☐ Exact match sort

Classification available
☐ Chemwatch 450
☐ Vendor 47174

Vendors
☐ Sigma-Aldrich (Merck) 3868
☐ Thermo Fisher (Kandel) 3031
☐ Tokyo Chemical Industry Co (TCI Europe) 2906
☐ Acros Organics (part of Thermo Fisher Scientific) 1872
☐ Alfa Aesar (a part of Thermo Fisher Scientific) 1737
[Show More](#)

Countries
☐ United States of America 10995
☐ United Kingdom of Great Britain and Northern Ireland 3649
☐ Canada 3107
☐ Germany 2616
☐ Australia 2516
[Clear filters](#)

25 Items per page

1-25 / 3064

Search Results and Grouping Method

The Full or Own search results can be grouped by Document, CW No or No Grouping from the side panel.

Full Search Results List Grouping	Own Search Results List Grouping
Grouping by CW No (Chemwatch Number) The user interface grid default setting is set to view the grid's material list by Material Name, the grouping by 'CW No' applies for a material that has multiple Vendor SDS documents.	Group Own by: This type of grouping enables users to group their own products by: - Document - CW No. - No Grouping The grid view can also be set to default to any of the above type of grouping through the General Settings mode.
☒ Grouping by CW No ☐ Exact match sort	Group Own By ☒ Material Name ☐ Cat Name ☐ No Grouping
In the Full search results list, use the dropdown blue arrow alongside the material to expand the material to view available Vendor documents listing.	In the Own search results list, use the dropdown blue arrow alongside the material to expand the material to view available Vendor documents listing.

Material Name	CW No	Vendor	Material Name
acetone	1090	Chemwatch	Acetone
ACETONE 1% w/v SOLUTION	1090	Central Drug House	Acetone Vendor Documents
ACETONE 1% w/v SOLUTION	1090	Central Drug House	29/03/2020 07/11/2020
acetone	1090	Guangzhou Haoying Chem	Acetone
			29/03/2020 07/11/2020

Date 1: This is the Vendor SDS Issue Date

Date 2: This is the Data Extraction Date

The table below provides descriptions of the side panel's filter options.

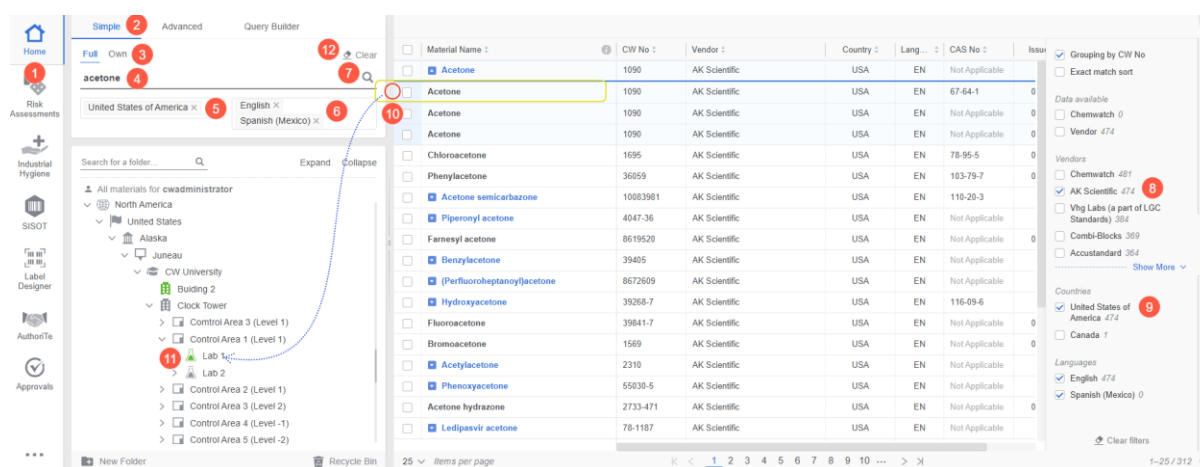
Side Panel Filter	Description
Grouping by CW number	Search results will be grouped ☒ by CW No. (Chemwatch Number) by default. If the checkbox ☐ is unselected, the materials grid will display the corresponding materials without grouping by CW No.
Exact match sort	If the checkbox is checked ☐ the grid will be sorted by exact chemical match name.
Classification available	Filter ☐ the list on the grid by using the Chemwatch classification option to list the material.
Vendors	If the checkbox is checked ☐ for a specific manufacturer, the grid will be sorted by exact vendor's name.
Countries	If the checkbox is checked ☐ for a specific country, the materials grid will be sorted by exact country.
Languages	If the checkbox is checked ☐ for a specific country, the materials grid will be sorted by exact language.

3.1.1 Search by Material Name and Add Material Vendor SDS into a Folder

The following steps show how to conduct a simple search by autocomplete look up method for a vendor SDS by using the material name search parameter from the Chemwatch full collection.

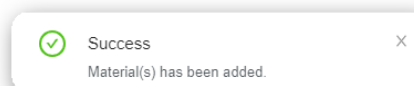
Steps: Search in Full and Add Material SDS

1. Open **Home** module .
2. Click on **Simple** tab.
3. Select **Full** link to designate the search path.
4. Type **Material Name** in the search text field.
5. Click on the **Country** field to set a country.
6. Click on the **Language** field to set a language(s) from the list.
7. Click the **Magnifying Glass**  to conduct the search based on the set parameters.
8. Select **Vendor** checkbox ☐ on the side panel to filter the materials list further to specific manufacturer(s), e.g., Sigma Aldrich.
9. **Country checkbox** ☐ has already been preselected based on the search parameters set. More countries may be added to further filter by those specific countries.



10. Hover **Drag**  and drop document name to a specific folder location, e.g., Storage Folder.
11. Click on the **Folder name** to view the record.
12. Press the **Clear** button  located on the search panel.

A message confirms the addition of material into folder.



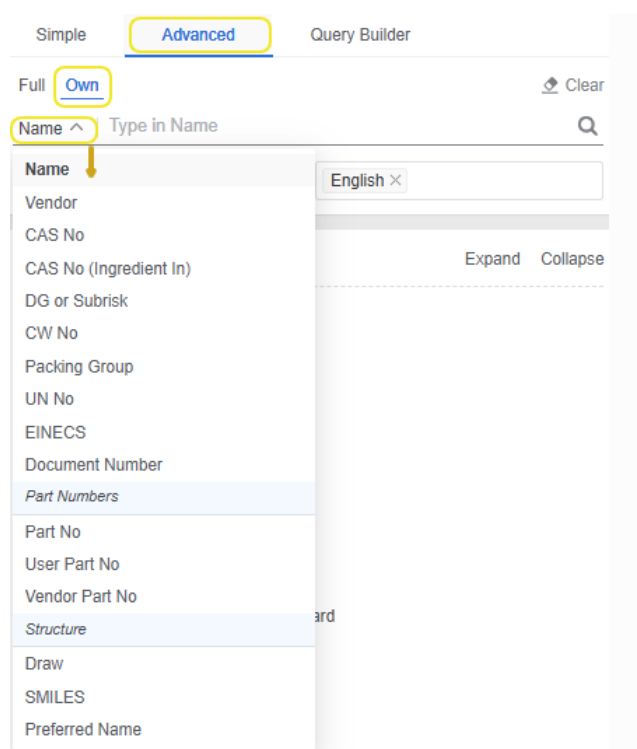
- i** If the material or chemical or product is available, a search list result will display, however, if no material is found, the search result will display the message "no records found". In this case, send an email request to upload vendor SDS and ensure to attach the latest version of the SDS: msdsuploads@chemwatch.net.

3.2 Advanced Search

The system provides an **Advanced** search mode to enable users to search by specific parameters provided in the Name drop-down list **Name** ▾ |.

Advanced search in the database provides users with targeted capabilities to efficiently retrieve information using specific search parameters, operators, and filters to narrow down the results based on a particular criterion.

The **Advanced Search** method allows users to search for materials using a variety of parameters.



This section covers the context and steps on how to use the Advanced tab within the Search Panel to search for specific materials by using the specific search parameters.

Search Option	Description	Use (Search by)
Name	Name of material	To allow users to search by the name of the material to retrieve Vendor, Mini, Gold SDS, Labels and Emergency Reports.
Vendor	Search for material using Vendor (Manufacturer, Supplier) name	Lists parent company and subsidiary operating business where applicable. Lists materials available in the database for that company. Users can access Vendor, Mini, Gold, Labels and Emergency Reports.

Search Option	Description	Use (Search by)								
CAS No	Chemical Abstract Substance Number	This is a unique numeric identifier in the CAS Registry designated to a known substance.								
CAS No (Ingredient In)	Ingredients In CAS No	Chemical Abstract Substance Number (CAS No) ingredients in material								
DG or Subrisk	Dangerous Goods Class or Subrisk	DG Classes 1 to 9 are listed to choose the primary class field or Subrisk.								
CW No	Chemwatch Number	Chemwatch numbers are assigned to all materials registered in the Chemwatch database for both pure and non-pure substances.								
Packing Group	Packing Group as per Dangerous Goods Classification	Packing Group is the grading of danger for materials classed as dangerous goods. <table><tr><th>PG</th><th>Level of Danger</th></tr><tr><td>I</td><td>Greater danger</td></tr><tr><td>II</td><td>Medium danger</td></tr><tr><td>III</td><td>Minor danger</td></tr></table>	PG	Level of Danger	I	Greater danger	II	Medium danger	III	Minor danger
PG	Level of Danger									
I	Greater danger									
II	Medium danger									
III	Minor danger									
UN No	United Nations Number	UN No is a UN four-digit identity number that identifies a hazardous substance in the international transport framework.								
EINECS	EINECS number used in European countries	European Inventory of Existing Commercial Chemical Substances. These are substances considered phase-in substances under the REACH Regulation.								
Document Number	Document Identification Number	Documents in the database are assigned to a document identification number.								
Part No	Part Number	Part number assigned to a material.								
User Part No	User dependent Part Number	User assigned Part Number to a material.								
Vendor Part No	Manufacturer Part Number	Part number provided on the vendor SDS by the manufacturer.								
Structure - Draw	Draw a 2D molecular structure	Search the database by using a chemical molecular structure.								
Structure - SMILES	Use SMILES	Search the database by using SMILES. SMILES is a Simplified Molecular Input Line Entry System which is a language for representing chemical structures as linear.								
Preferred Name	Search by Preferred Name	Preferred Names are user dependent names of materials or products in your own inventory.								

3.2.1 Search for Material by CAS Number

The steps below show how to use the Advanced search option, **CAS No.**, to look for a specific material with that exact chemical abstract substance number.

- i** Note that not all materials have a CAS number. CAS numbers are unique and specific to individual substances, provide an unmistakable way of identifying chemicals no matter how they might be described.

Steps: Search for a Material by CAS Number

The screenshot shows the search interface with the following steps highlighted:

- Open **Home** module.
- Click on the **Advanced** tab.
- Select **Full** link to designate the search path.
- Click the **Name drop down** arrow and select **CAS No** parameter from the menu.
- Type the **CAS number** in the search text field, e.g., 67-64-1.
- Click on **Magnifying Glass** to conduct the search.
- Click the **Material name** from the search results list to display Vendor SDS.

- Open **Home** module.
- Click on the **Advanced** tab.
- Select **Full** link to designate the search path.
- Click the **Name drop down** arrow and select **CAS No** parameter from the menu.
- Type the **CAS number** in the search text field, e.g., 67-64-1.

- Click on **Magnifying Glass** to conduct the search.
- Click the **Material name** from the search results list to display Vendor SDS.

Note that the side panel will display the respective filter options to narrow down the search results:

- Vendors, countries and languages

The screenshot displays the Sigma-Aldrich Safety Data Sheet (SDS) for Acetone. The document includes the following sections:

- SECTION 1: IDENTIFICATION 1.1** Product identifiers
 - Product name: Acetone
 - Product Number: 650501
 - Brand: SIGALD
 - CAS-No.: 67-64-1
- 1.2 Other means of identification**
 - No data available
- 1.3 Relevant identified uses of the substance or mixture and uses advised against**
 - Identified uses: For R&D use only. Not for pharmaceutical, household or other uses.
- 1.4 Details of the supplier of the safety data sheet**
 - Company: Merck Life Science Pty Ltd
 - Ground Floor, Building 1, 885 Mountain Highway
 - BAYSWATER VIC 3153
 - AUSTRALIA
 - Telephone: +61 1800 800 097
 - E-mail address: customersupport.anz@merckgroup.com
- 1.5 Emergency telephone number**
 - Emergency Phone #: Free call (24/7): 1800 862 115
 - Int'l (24/7): +61 2 9037 2994 (CHEMTREC)

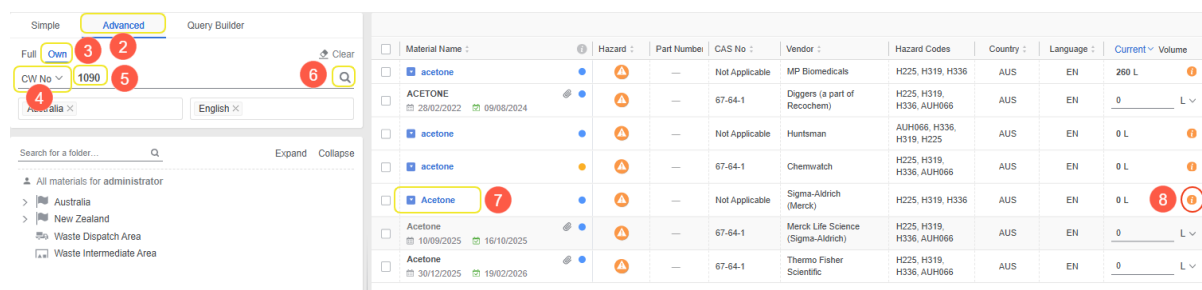
The right sidebar shows the document structure with options for Main Documents (SDS, Issue Date, MINI, Australia / English, LABEL) and Alternative Documents (Chermwatch SDS, Chermwatch MINI, First Aid, PPE, Toxicological, Environmental, Fire Fighting, Spills, SOP, Advice to Doctor, CHINA). Special Documents (HPD, EPD) are also listed.

3.2.2 Search for Material by CW Number

The steps below show how to use the Advanced search parameter to search for material by **CW No.** (Chemwatch Number). A Chemwatch number is a unique identifier (ID) in the database that is assigned to a specific chemical substance. This type of chemical substance identifier helps users to find information about the chemical and locate the SDS.

Steps: Search for a Material by CW No. (Chemwatch Number)

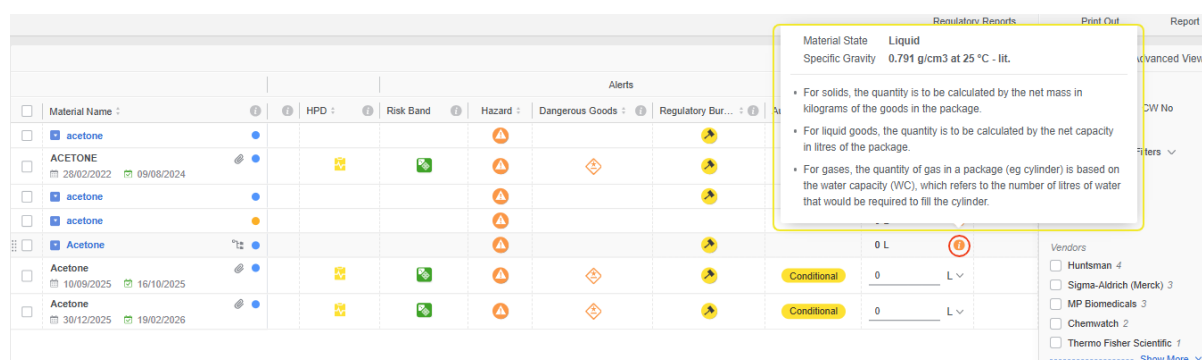
1. Open **Home** module .
2. Click on **the Advanced** tab.
3. Select the **Own** link to designate the search path to your inventory.
4. Click the **Name drop down** arrow and select **CW No** from the menu.
5. Type the **Chemwatch number** in the search text field, e.g., 1090.
6. Click on **Magnifying Glass**  to conduct the search.
7. Click on the **Material Name** to display SDS.



The screenshot shows the Chemeritus search interface. On the left, there's a sidebar with 'Simple', 'Advanced', and 'Query Builder' tabs. The 'Advanced' tab is selected. Below it, there's a search bar with 'Full', 'Own', and 'CW No' options. The 'CW No' option is selected, and the search term '1090' is entered. A magnifying glass icon is used to execute the search. The search results are displayed in a table with columns: Material Name, Hazard, Part Number, CAS No, Vendor, Hazard Codes, Country, Language, Current, and Volume. The results show multiple entries for 'acetone' from different vendors, including MP Biomedicals, Diggers (a part of Recochem), Huntsman, Chemwatch, Sigma-Aldrich (Merck), Merck Life Science (Sigma-Aldrich), and Thermo Fisher Scientific.

8. Hover mouse over the volume/weight information icon  for details on specific gravity of the material based on physical property.

Note: Specific gravity (relative density) is important for quality control, formulation and diagnostics in multiple industries.



The screenshot shows the detailed view of the search results for 'acetone'. A tooltip is displayed over the 'Volume' column, showing the material state as 'Liquid' and the specific gravity as '0.791 g/cm3 at 25 °C - lit.'. The tooltip also includes instructions for calculating the quantity of goods in the package: 'For solids, the quantity is to be calculated by the net mass in kilograms of the goods in the package.', 'For liquid goods, the quantity is to be calculated by the net capacity in litres of the package.', and 'For gases, the quantity of gas in a package (eg cylinder) is based on the water capacity (WC), which refers to the number of litres of water that would be required to fill the cylinder.'

Gold SDS View

< Back

Chemwatch Hazard Alert Code: 3
Initial Date: 28/11/2005
Revision Date: 23/12/2022
Print Date: 21/05/2026
S.GHS.AUS.EN

acetone

Product review by Chemwatch

Chemwatch: 1090
Version No: 6.1
Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	acetone
Synonyms	C3-H6-O, CH3COCH3, propanone, pyroacetic acid, pyroacetic ether, 2-propanone, beta-ketopropane, methyl ketone, propan-2-one, dimethyl ketone, ketone, dimethyl ketone propane, dimethyl formaldehyde, RF Services, RCRA Waste No. U002, EM000739, APS RETL00020006 UCH00002546 RDEH06009000, SPOL00000585 AR0000006 UL0000007 M&B00004946, Ashland Acetone ECD Mobil 878033 971934, J.T.Baker Chem-Supply, Product code: 11831, 101404: DAVID CRAIG ACETONE 500ML, 101405: DAVID CRAIG ACETONE 100ML
Chemical formula	CH3COCH3
Other means of identification	Not Available
CAS number	67-64-1

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Solvent for fats, oils, waxes, resins, rubber, plastics, lacquers. Used in manufacture of methyl isobutyl ketone, mesityl oxide, acetic acid, diacetone alcohol, isoprene. Used in solvent extraction processes. Solvent in the manufacture of explosives and rayon. Component of adhesives, glues, cleaning solvents, lacquer thinners, nail polish, paint removers. Storing acetylene gas (takes up about 24 times its volume of the gas). Purifying paraffin and biomedical hardening and dehydrating tissues. Minor food additive, permitted in USA.
--------------------------	--

Details of the manufacturer or importer of the safety data sheet

Registered company name	Product review by Chemwatch
-------------------------	-----------------------------

Main Documents

- SDS
- MINI Australia / English
- LABEL

Alternative Documents

- Chemwatch SDS
- Chemwatch MINI
- First Aid
- PPE
- Toxicological
- Environmental
- Fire Fighting
- Spills
- SOP
- Advice to Doctor
- CHINA

Special Documents

- HPD
- EPD

3.2.3 Search for Material by Vendor

The manufacturer or importer must prepare SDS and provide information as per SDS preparation requirements, e.g. classification of a hazardous chemical using GHS. This information must include:

- | | |
|--|---|
| <ul style="list-style-type: none"> • Product name • Vendor details • Business name • Address • Telephone number • Emergency number • Issue date of the SDS • Review date | <ul style="list-style-type: none"> • Version number • Chemical composition • Hazard classification • Chemical properties & Ingredient • Precautionary information • Emergency information • First aid • Transport information |
|--|---|

i A Vendor is also known as a supplier or manufacturer. Manufacturers must provide current SDS for their products that are on the marketplace and the workplace for customers and workers that use, handle or transport hazardous chemicals to refer to the information contained in the Safety Data Sheet.

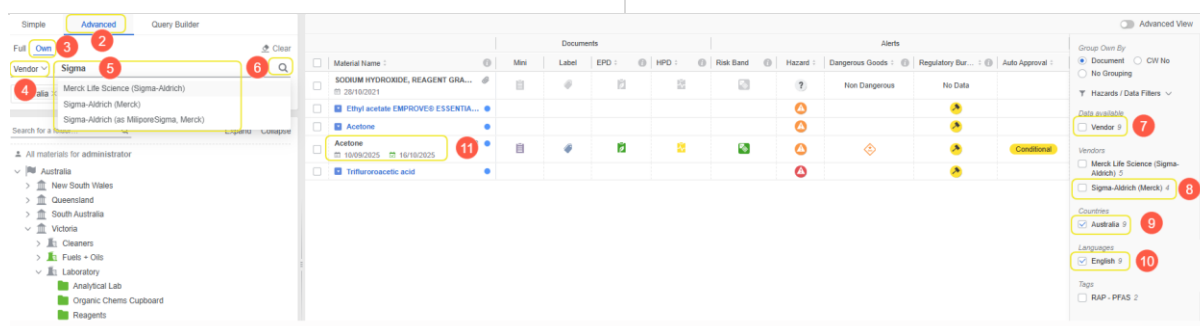
Manufacturers must follow the 16 sections of SDS requirements where information about the product must be detailed where applicable or available and review the SDS at least once every five years from the original preparation or the last revision of the SDS and ensure that the SDS contains correct and current information.

The steps illustrate how to navigate the Advanced mode to find a material SDS using the **Vendor search**.

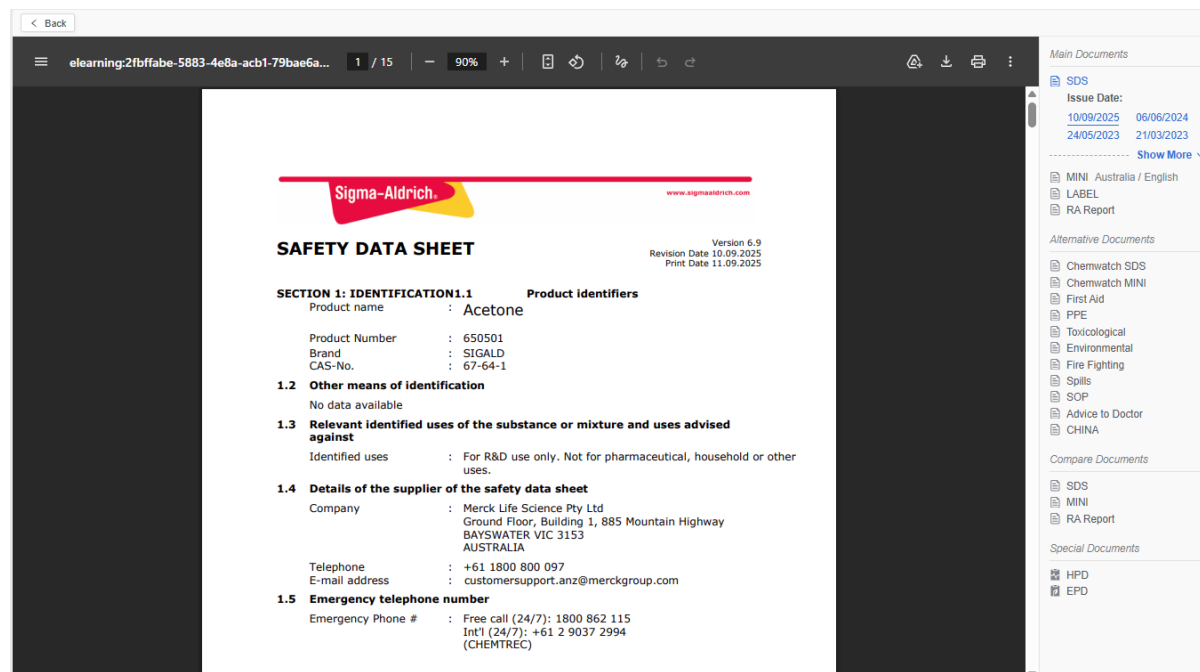
Steps: Search by Vendor Name and Display the Manufacturer's SDS

1. Open **Home** module .
2. Click on the **Advanced** tab.
3. Select **Own** link to designate the search path.
4. Click the **Name drop down** arrow and select the **Vendor** search parameter from the menu.
5. Type the **Vendor name** in the search text field, e.g., Sigma.
6. Click on **Magnifying Glass**  to conduct the vendor search.
7. Select the **Vendor** checkbox for classification available.
8. Select the **Vendor checkbox** to filter by specific vendor.
9. Select the **Country checkbox** to further filter the search results from the materials list.
10. Select the **Language checkbox** filter.
11. Click on the **Vendor Document name** to display the Vendor SDS.

The Vendor SDS display correlates to the specific manufacturer of the safety data sheet.



Vendor SDS View



3.2.3 Search for Material by Dangerous Goods (DG Class)

Dangerous goods are substances; including mixtures, solutions, and articles that when transported pose a risk to health, safety, property, or the environment. Specific dangerous goods that pose risks even when they are not transported are known as hazardous materials. Dangerous goods are divided into nine classes based on their specific chemical characteristics that pose risk. These classes range from 1 to 9. The table below lists the nine classes and short descriptions.

DG Class	Class Name	Divisions and Description
Class 1	Explosives	Division 1.1: Substances and articles which have a mass explosion hazard. Division 1.2: Substances and articles which have a projection hazard but not a mass explosion hazard. Division 1.3: Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard. Division 1.4: Substances and articles which present no significant hazard. Division 1.5: Very insensitive substances which have a mass explosion hazard. Division 1.6: Extremely insensitive articles which do not have a mass explosion hazard.
Class 2	Gases	Division 2.1: Flammable gases. Division 2.2: Non-flammable, non-toxic gases. Division 2.3: Toxic gases.
Class 3	Flammable Liquids	There are no divisions for this DG Class. Vapours from these liquids can ignite in air on contact with a source of ignition. (e.g., petrol, kerosene).
Class 4	Flammable Solids; Substances Liable to Spontaneous Combustion; Substances which, on contact with water, emit flammable gases	Division 4.1: Flammable solids, self-reactive substances, and solid desensitized explosives. Division 4.2: Substances liable to spontaneous combustion. Division 4.3: Substances that when they are in contact with water emit flammable gases.
Class 5	Oxidizing Substances and Organic Peroxides	Division 5.1: Oxidizing substances. Division 5.2: Organic peroxides.
Class 6	Toxic and Infectious Substances	Division 6.1: Toxic substances. Division 6.2: Infectious substances.
Class 7	Radioactive Material	There are no divisions for this DG Class. Materials or combinations of materials that emit harmful radiation (e.g., uranium, radium).
Class 8	Corrosive Substances	There are no divisions for this DG Class. Solids or liquids that can damage living tissue and may react with many

DG Class

Class Name

Divisions and Description

other materials.
(e.g., hydrochloric acid, caustic soda).

Class 9
Miscellaneous
Dangerous Substances
and Articles

There are no divisions for this DG Class. Substances and articles that present a danger and are not covered by other classes.
(e.g., dry ice, asbestos).

The steps below show how to use Advanced search to look up material by a specific dangerous goods class.

Steps: Search for Material by DG Class

1. Open **Home** module .
2. Click on **the Advanced** tab.
3. Select **Own** link to designate the search path from your own inventory list.
4. Click the **Name drop down** arrow.
5. Select **DG Class** option from the menu and click on dangerous goods class number e.g., 3 for flammable liquids.
6. Click on **Magnifying Glass**  to conduct the search.

7. Note that the **Dangerous Good Class** is shown for flammable liquids alongside the material name from your own search results list.
8. Click the **Material Name** to display the respective SDS.

Applying the filters on the side panel will refresh the material search results to reflect the records based on the filter conditions set.

Vendor SDS View – Section 14, Transport Information and DG Class

Safety Data Sheet
according to WHS Regulations

Page 7/8

Printing date 06/08/2018 Revision: 06/08/2018

Trade name: Acetone

(Contd. of page 6)

· IMDG, IATA ACETONE

· Transport hazard class(es)

· ADG, IMDG, IATA

· Class 3 Flammable liquids.

· Label 3

· Packing group II

· ADG, IMDG, IATA

· Environmental hazards: Not applicable.

· Special precautions for user Warning: Flammable liquids.

· Danger code (Kemler): 33

· EMS Number: 3-06

· Storage Category E

· Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.

· Transport/Additional information:

· ADG II

· Limited quantities (LQ) Code: E2

· Excepted quantities (EQ) Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· Transport category 2

· Tunnel restriction code D/E

· IMDG II

· Limited quantities (LQ) Code: E2

· Excepted quantities (EQ) Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

3.2.4 Search for Material by CAS (IngredientIn)

Searching by **CAS No (IngredientIn)** option enables users to search by Chemical Abstract Substance Number Ingredient In to identify materials containing the chemical ingredient(s) or active constituent(s).

Steps: Search for a Material by CAS No (IngredientIn)

Simple Advanced Query Builder

Full Own 3 2 Clear

CAS No (IngredientIn) 108-88-3 5 6 Q

Australia 4 English x

Search for a folder... Expand Collapse

All materials for administrator

- Australia
 - New South Wales
 - Queensland
 - South Australia
 - Victoria
 - Cleaners
 - Fuels + Oils
 - Laboratory
 - Analytical Lab
 - Organic Chemis Cupboard
 - Reagents

Material Name	Hazard	Part Number	CAS No	Vendor	Hazard Codes	Country	Language	Current	Volume	Material Tags
Boskin N49 Primer	11	8811/2022	108-88-3	Boskin (an Arkema Company)	H225, H304, H315, H317, H319, H336, H361, H373	AUS	EN	8	L	
Boskin N49 Primer	11	1489/2023	108-88-3	Chemwatch	H225, H302, H304, H315, H319, H332, H336, H361, H373	AUS	EN	8	L	
Suncor Energy Naphtha (Sweet)	11	15/02/2024	15/02/2024	Chemwatch	H225, H304, H315, H319, H336, H340, H350, H360F6, H373, H402	AUS	EN	8	L	

Group Own By: Document, CWF No

Hazards / Data Filters

Date available: Chemwatch 2

Vendors: Chemwatch 2, Boskin (an Arkema Company) 1

Countries: Australia 3

Languages: English 3

1. Open **Home** module
2. Click on the **Advanced** tab.
3. Select **Full** link to designate the search path.
4. Click the **Name** drop down arrow and select **CAS No (Ingredient In)** from the menu.
5. Type the **CAS number** in the search text field, e.g., 108-88-3.
6. Click the **Search** button.
7. Click the **Vendor** checkbox for classification available.
8. Select the **Vendor** checkbox for a specific manufacturer/supplier.
9. Use the **Country** filter on the side panel to select a specific country and/or language.
10. Click the **material name** to display the respective SDS.

- Click on **Magnifying Glass** to conduct the search.
- Click the respective vendor checkbox to filter by that specific manufacturer.

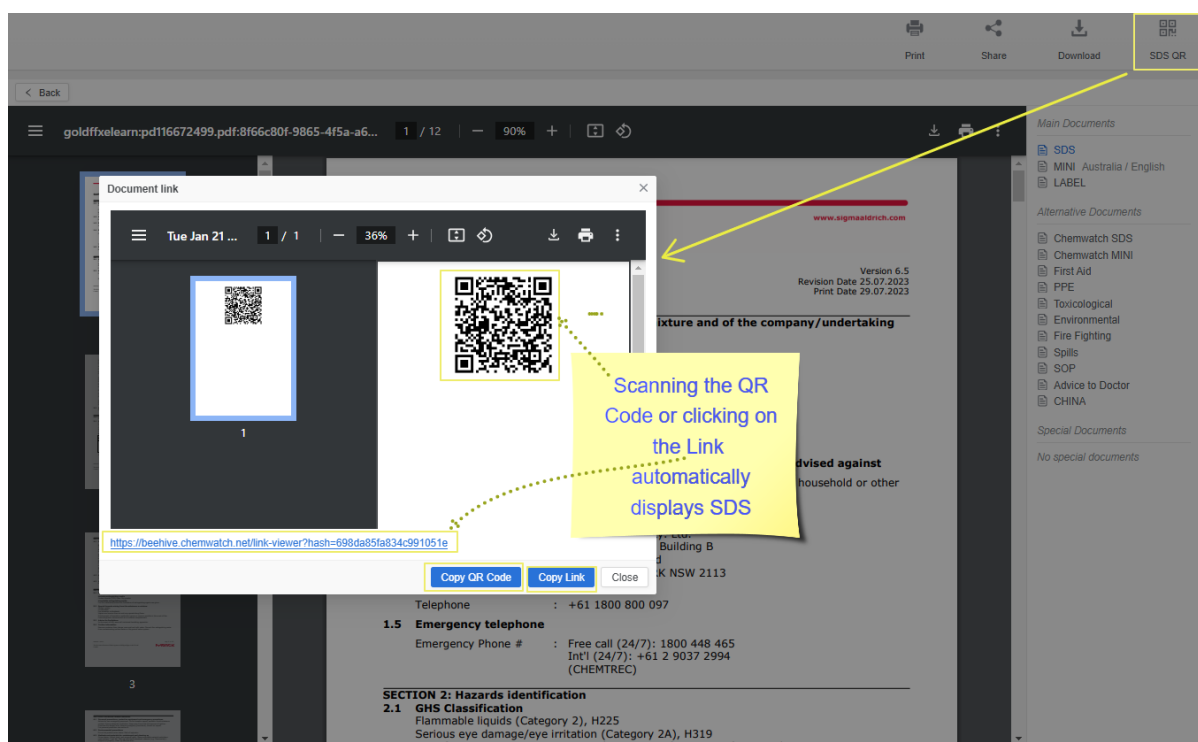
Applying the filters on the side panel will refresh the material search results to reflect the records based on the filters applied such as Vendor:

- Country = Australia
- Language = English

3.3 SDS QR (Safety Data Sheet QR Code)

SDS QR Code is a Safety Data Sheet QR (Quick Response) code aimed at scanning the image to retrieve specific information by providing a generated QR code, QR code link or choose other templates.

Clicking on the **Scan QR code button** renders the QR code in a pdf document and the system provides an online link that can be used to quickly access the SDS externally from the system. Users can **Copy the SDS QR code** or **Copy the link**.



QR codes make SDS documents instantaneously accessible on mobile devices (smart phones or tablets) and eliminates the need for hard copies or physical storage of SDS. It simply reduces the hard copy reliability and is accessible anywhere. It also facilitates quick access to up-to-date SDS at the workplace and users' access to the most recent version of the product's SDS.

QR codes can also be printed and placed at the workplace on product labels (chemical containers), packaging, equipment or storage areas, especially in remote sites where printed SDSs may not be practical. With diverse workers, SDS documents with different languages can also be accommodated with SDS QR Codes that can link to those specific language SDSs for ease of communicating hazardous chemical information.

4.0 The IFC Process and Generate IFC Reports

This topic will cover the following objectives.

- [The IFC Process](#)
- [IFC Folder Inventory](#)
- [Add Volume/Weights](#)
- [Sisot Containers](#)
- [Generate IFC Health Hazard Indoor Storage Report](#)
- [Generate IFC Physical Hazard Indoor Storage Report](#)
- [Create Report Generator Template for IFC Reporting](#)



The entire IFC process for hazardous material management follows a structured approach.

1. Define the Company/Organisational Structure
2. Create Facilities
3. Determine Occupancy classification
4. Establish Occupancy Folders
5. Configure Storage Locations
6. Populate folders with Chemical Inventories
7. Aggregate Hazardous Material Quantities
8. Assess IFC Compliance
9. Generate IFC Reports

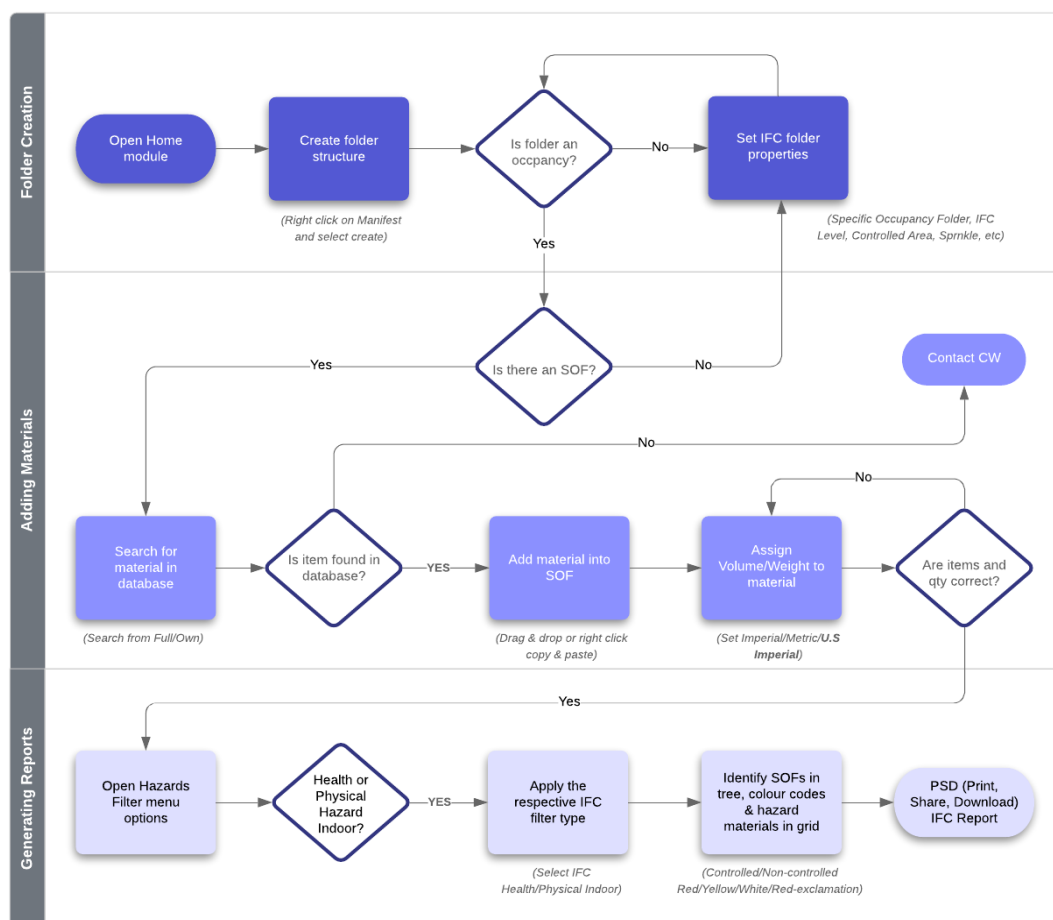
We have looked at the process required in establishing the highest organisational or geographical level using the hierarchy principle for IFC Folder Structure. This level applies to defining the company or organisational folder structure based on operational sites. The next step is to establish and configure facilities within areas such as buildings, warehouses, laboratories, industrial or manufacturing plants or storage compounds or locations.

Once the folder structure is established, assign the appropriate occupancy types based on the activities conducted within those facilities such as mixed-use occupancies. Creating the occupancy folders require specific IFC folder properties and attributes to represent operational use of the areas as a basis for IFC hazardous material analysis and reporting. Storage folders must also represent physical locations where hazardous materials are stored such as cabinets, rooms, shelves, tanks, racks or outdoor compounds.

With the existing folder structure nested with the respective storage folder locations, users can then add or populate the latter with the chemical inventories, containers and quantities to the relevant storage folder locations and associate each material with the respective SDS.

The system aggregates hazardous material quantities to consolidate them based on the occupancy level and storage folders for evaluation against the IFC MAQ thresholds and control area limits, then generates the IFC Report based on Health and Physical Hazards Storage Indoor Filter functionality.

The chart below illustrates the steps to undertake in the system to ensure the IFC activities are carried out to generate IFC Reports.



4.1 Volume/Weight of Materials

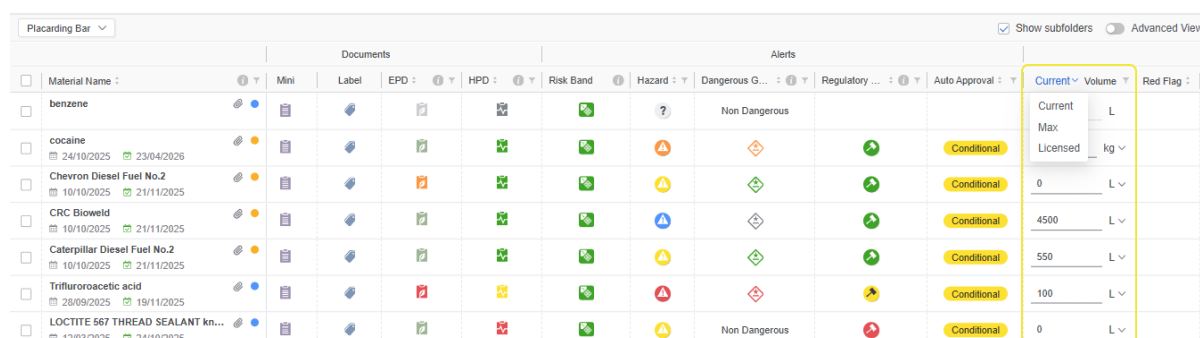
This topic covers the following activities:

- Adding volume/weight to a material
- Adding volume/weight to a product
- Dangerous Goods volume/weight



Hazardous chemicals in the workplace are generally kept in containers or in bulk. Regulatory compliance with occupational or workplace health and safety plays a crucial role in ensuring the safe handling, storage, and disposal of hazardous chemicals. For example, in Australia, the WHS Regulations require placards and manifest quantities to be calculated in accordance with the hazard classes and categories under the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

Volume/Weight Category	Description
Current	The current volume or weight refers to the amount of a chemical stored in a facility at a specific time. Helps to track real time inventory of chemical storage on site.
Maximum	The maximum volume or weight refers to the highest amount of a chemical that a storage location or container is designated to hold in accordance with health and safety requirements. This category of volume or weight prevents overfill of containers or storage areas to ensure storage capacity is adhered to for compliance requirements.
Licensed	These are limits set by government regulations or licensing authorities and internally used to track licensed quantities to ensure compliance with dangerous goods storage requirements.



Material Name	Documents	Alerts	Volume/Weight
benzene	EPD, HPD, Risk Band, Hazard, Dangerous G...	Non Dangerous	Current L
cocaine	EPD, HPD, Risk Band, Hazard, Dangerous G...	Conditional	Max kg
Chevron Diesel Fuel No.2	EPD, HPD, Risk Band, Hazard, Dangerous G...	Conditional	Licensed 0 L
CRC Bioweld	EPD, HPD, Risk Band, Hazard, Dangerous G...	Conditional	4500 L
Caterpillar Diesel Fuel No.2	EPD, HPD, Risk Band, Hazard, Dangerous G...	Conditional	550 L
Trifluoroacetic acid	EPD, HPD, Risk Band, Hazard, Dangerous G...	Conditional	100 L
LOCTITE 567 THREAD SEALANT kn...	EPD, HPD, Risk Band, Hazard, Dangerous G...	Non Dangerous	0 L

Understanding the volume or weight of hazardous chemicals is a critical adherence to safety protocols. Regulations specify the maximum allowable quantities of hazardous chemicals for storage, transportation, and disposal. Liquids and gases are often measured in volume such as liters or gallons.

The system provides a volume/weight column and options for measurement units. The volume or weight can be set as current, maximum, or licensed.

Units of measurement are standardised to express the magnitude or quantity of the materials in a folder. There are mainly two categories of formal units of measurement that are used in the system's grid in relation to a chemical manifest:

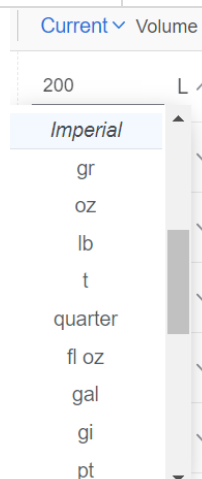
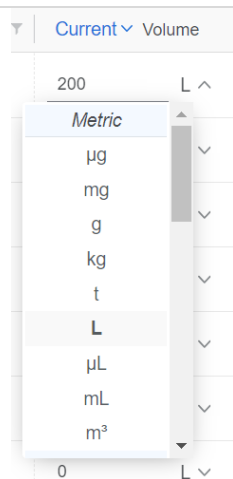
- Volume
- Weight

The Metric, Imperial and Imperial U.S measurement units are listed below.

Metric Units

Imperial/Imperial U.S Units

Unit	Symbol	Unit	Symbol
Nanogram	µg	Grain	gr
Milligram	mg	Ounce	oz
Gram	g	Pound	lb
Kilogram	kg	Ton	t
Ton	t	Quarter	quarter
Litre	L	Fluid ounce	fl oz
Nanoliter	µL	Gallon	gal
Microliter	mL	Gill	gi
Cubic metre	m ³	Pint	pt
		Quart	qt
		Cubic foot	ft ³



- i** Regardless of the unit added to materials, the IFC report will display the volume/weight using the standardized unit set in the IFC settings. For example, if a material is added in kg, but the IFC setting did the calculation in pounds (lb), then the system will convert the current volume/weight to pounds (lb).

4.2. Add/Edit Volume/Weight to a Material

The steps below illustrate how to add volume/weight to a material in a folder location.

Steps: Add/Edit Volume/Weight to a Material

1. Open **Home** module
2. Click on **the Folder** location to list materials.
3. Click the volume dropdown arrow from the column header and set the **Current** or Maximum or Licensed category.
4. **Type** the value of the volume/weight on text field for the material.

5. Click the unit measure dropdown arrow to set the respective **unit symbol**.
6. Click the green tick to **Save** the record entry.

A message confirms successful operation.

Success
Volume has been changed

Material Name	SDS	Mini	Label	Risk Band	Hazard	Dangerous G...	Regulatory ...	Current Volume
12.5% Bleach								200 L
BLEACH								450 L
FORMALDEHYDE 41%								0 L
Glitter Paint								0 L
Henkel Loctite 503140LB								0 L
Poster Paint								0 L
SULPHURIC ACID 70%								0 L

i Note that if the current volume or weight of the material was initial set to a lower or same value as the maximum, changing the current value to a greater value will trigger the system to display a message to check the initially set value to meet the requirement. The system will not allow current value to be more than maximum value. It's recommended to set the maximum value first and then change the current amount.

		Documents				Alerts				Current Volume	Material Tags
Material Name		SDS	Mini	Label	Risk Band	Hazard	Dangerous G...	Regulatory ...			
12.5% Bleach	01/02/2019 09/05/2020									200 L	
2 Trifloro	13/08/2020						No UN			0 L	
5040 Index Fluid	10/02/2006 21/07/2018						No UN			0 L	
Acetone	29/03/2020 07/11/2020									1000 L	
Agar Solspray	01/09/2021 22/11/2021						No UN			40 L	
Amino acid Standard	13/05/2022 24/01/2023									15 L	
Ammodet	01/07/2016 29/08/2020						No UN				

i Users (with settings permissions) can modify permits and MAQ in the IFC Settings to comply with State and local IFC requirements.

4.3 Regulatory Reports – International Fire Code (IFC)

IFC reporting generates data according to the configuration defined within the International Fire Code Report Settings. These reporting dependencies determine how the report data is processed and generated based on the following criteria as described in IFC Settings section of this guide:

- Report By Location or Barcode
- Report Format as Basic (Standard summary of IFC calculations per control area)
- Filter by Quantity for All (default) or Above Threshold or Above MAQ
- Exclude empty hazards classes from the report (optional)

IFC has two types of reporting filter options in the system's Regulatory Reports dropdown menu feature:

- IFC Health Hazards Storage Indoor
- IFC Physical Hazards Storage Indoor

Regulatory Reports Feature

The screenshot shows the Chemeritus Regulatory Reports interface. The 'Regulatory Reports' dropdown menu is highlighted with a red circle. The main table displays material data with columns for Material Name, CAS No, Hazard, Hazard Codes, Country, Language, Vendor, Max Volume, and Auto Approval. The 'Lab 1' folder is highlighted in the left sidebar.

Material Name	CAS No	Hazard	Hazard Codes	Country	Language	Vendor	Max Volume	Auto Approval
acetone	67-64-1		H225, H319, H336	USA	EN	Chemwatch	100 L	Conditional
benzene	71-43-2		H225, H304, H315, H319, H335+H336, H340, H350, H360, H372	USA	EN	Chemwatch	300 L	Conditional
nitrogen	Not Applicable		H280	USA	EN	Chemwatch	450 L	Conditional
selenium hexafluoride	7783-79-1		H280, H301, H314, H318, H331, H373, H410	USA	EN	Chemwatch	1000 L	Conditional
WD-40 Aerosol	Not Applicable		H222, H304, H315, H320, H336	USA	EN	Chemwatch	6000 L	Conditional

IFC Filter Options

The screenshot shows the Chemeritus IFC Filter Options dropdown menu. The 'International Fire Code' option is highlighted with a red circle. The main table displays material data with columns for Material Name, CAS No, Hazard, Hazard Codes, Country, Language, Vendor, Max Volume, and Auto Approval.

Material Name	CAS No	Hazard	Hazard Codes	Country	Language	Vendor	Max Volume	Auto Approval
acetone	67-64-1		H225, H319, H336	USA	EN	Chemwatch	100 L	Conditional
benzene	71-43-2		H225, H304, H315, H319, H335+H336, H340, H350, H360, H372	USA	EN	Chemwatch	300 L	Conditional
nitrogen	Not Applicable		H280	USA	EN	Chemwatch	450 L	Conditional
selenium hexafluoride	7783-79-1		H280, H301, H314, H318, H331, H373, H410	USA	EN	Chemwatch	1000 L	Conditional
WD-40 Aerosol	Not Applicable		H222, H304, H315, H320, H336	USA	EN	Chemwatch	6000 L	Conditional

IFC Folder Threshold Checks and CA Highlighting

When a user selects an IFC filter option, the action determines which set of Hazard Classes and Threshold values in respective Storage Indoor tables used for all calculations. IFC folder hierarchies at level -3 or deeper are ignored for calculations. If there is any IFC Hazard Class within a folder inventory/manifest, the system will apply folder-highlight functionality and colour code the identified locations folder by folder regardless of parent and subsidiary folder relationship.

The IFC feature uses the following IFC Folder Threshold and CA Highlighting indication methodology to identify the folder locations that contain hazardous materials that meet or exceed the MAQ threshold based on the total inventory amount.

- Red highlight
- Yellow highlight
- Green highlight
- Exclamation mark

IFC Folder Threshold and CA Highlighting Code	Color Coded Icon	Interpretation of IFC Folder Highlighting (When CA contains hazardous materials)
Highlight Red with X		Red-highlighted locations indicate that the Total Inventory Amount for one or more Hazard Classes is equal or exceeds the Calculated MAQ in the Control Area
Highlight Red with N		Red-highlight locations and append “N” to indicate that the location’s level is -3 or lower, and it is not allowed under IFC regulation. Filter grid won’t be displayed for any folders with level below -2
Highlight Yellow with a Dash		Yellow-highlighted locations indicated that Total Inventory is below the Calculated MAQ but exceeds the notification threshold for one or more hazard class within the Control Area
Highlight Green with a Tick		Green-highlighted locations indicate that Total Inventory Amount is below the notification threshold for any hazard class within the Control Area
Exclamation Mark		Locations marked with an exclamation mark contain hazardous materials and are not designated as Control Areas

A highlighted folder must be selected to view the International Fire Code (IFC) Report information.

Chemeritus

Health Hazard Indoor Storage

Regulatory Reports

Print

Share

Download

Search for a folder...

Expand

Collapse

All materials for cwwadministrator

Lab 3

IFC Storage Room

Lab 1

Cabinet 1

Cabinet Regulated

Fridge 1

shelf 1

Hazard	Class	Physical State	Inventory Amount
Corrosive Gaseous	NA	Gaseous	35.3 #3
Material Name CAS Number Vol/WT			
selenium hexafluoride	7783-79-1	35.3 #3	
Toxic Gaseous	NA	Gaseous	35.3 #3

Use the expand button to view further details of the materials fall under corresponding hazard classification and class:

- Material Name
- CAS Number
- Volume/Weight

MAQ Capacity

When materials in a folder fall under a hazard classification or class, the **MAQ Capacity** column indicates the remaining or excess capacity. The value inside the brackets shows the amount of volume or weight that can be added or must be reduced:

- Positive value:** Indicates available capacity that can be added.
- Negative value:** Indicates the amount that exceeds the limit and must be reduced.

Example: In this folder, users can add up to **97ft³** of materials under the Combustible Fiber hazard category (Loose class). However, user must reduce the volume of materials under the Cryogenic Flammable hazard class by **5,565.8 gal**.

Physical Hazard Indoor Storage

Regulatory Reports

Print

Share

Download

Search for a folder...

Expand

Collapse

All materials for

CA 1 HH L1 (T1)

CR1

S1

CA 1 PH L1

CR1

S1

Hazard	Class	Physical State	Inventory Amount	Calculated MAQ (a, d, e)	MAQ Capacity(f)	Group when the MAQ is exceeded
Combustible fiber	Loose	Solid	3 #3	100 #3	[+97 #3] 3% used	
Combustible fiber	Baled	Solid	3 #3	1000 #3	[+997 #3] 0.30017463100592057% used	
Combustible liquid	III-B	Liquid	117.9 gal	13200 gal	[+13082.1 gal] 0.8934651070306095% used	
Cryogenic Flammable	NA	Liquid	5610.8 gal	45 gal	[-5565.8 gal] 12488.5% used	H-2

4.3.1 Filter by IFC Health Hazard Indoor Storage

The following IFC MAQ Thresholds values will be used to generate IFC Health Hazard Indoor Storage Report inferencing the hazard class of the materials in an IFC folder.

Storage Indoor Reference Data – MAQ per Health Hazards

Hazard	Class	Group when the MAQ is Exceed	Solid Pounds	Liquid Gallons (Pounds)	Gas Gaseous Cubic Feet at NPT (Pounds)	Gas Gaseous Cubic Feet at NPT (Pounds)	Notification Threshold (%)
Corrosives	N/A	H-4	5000	60	40	(150)	75
Highly Toxics	N/A	H-4	10	(10)	20	(4)	75
Toxic	N/A	H-4	500	(500)	30	100	75

The following steps illustrate how to filter by IFC Health Hazard Indoor Storage for hazard materials in an IFC folder and generate a report.

Steps: Filter IFC Folder by Health Hazard Indoor Storage

1. Open **Home** module
2. Click on **Folder** location to list material inventory.
3. Click the **Regulatory Reports** dropdown arrow/**Switch** icon.
4. Select the **IFC Health Hazard Indoor Storage Report** option to run the report information.
5. Click on the **Highlighted Folder** on the tree panel to display the details, e.g., Red-highlighted folder or or , etc., depending on IFC calculation result.
6. The **IFC Health Indoor Storage Report** details are displayed on the grid. Note that the report grid results are displayed in the identical colour coding highlight depicting the same highlighted folder colour coding, e.g., the green with a tick highlighted folder location.
7. Click the **Expand** button to view further details; Material Name, CAS Number and Volume/Weight.
8. Click the **Print** button to generate a pdf document of the report.
9. The **IFC Report document** displays MAQ per control area of the hazardous materials posing a health hazard.
10. Use the acrobat reader options; Print or Share or Download to save your report.
11. Click the **Regulatory Reports Switch off** **Manifest Quantity Report** to go back to the default folder inventory grid display.

Material Name	CAS No	Hazard	Hazard Codes	Country	Lang	International Fire Code
acetone	67-64-1*		H225, H319, H336	USA		
Hydrochloric Acid, 50% (v/v)	7647-01-8		H290, H314, H318	USA		
Wattyl Agricultural Primer	Not Applicable		H225, H304, H315, H335, H336, H341, H351, H361, H373, H411	USA	EN	Chemwatch
Propane	74-98-6		H220, H280	USA	EN	Algas (a part of Air Liquide)
Kerosene	8008-29-6		H227, H304, H315, H336, H411	USA	EN	Merck Life Science OY (Sigma-Aldrich)
Mixture API Test	Not Avail*		H225, H302, H304, H315, H319, H336, H340, H350, H360, H372, H410	USA	EN	CW Chímicos
polyvinyl chloride	9002-86-2*		H315, H319, H335	USA	EN	
Maleic anhydride	100-31-6		H302, H314, H317, H318, H334, H372, H402	USA	EN	Sigma-Aldrich
Ethylene	74-85-1		H220, H280	USA	FN	Merck Life Science OY

Search for a folder... Expand Collapse

All materials for cwwadministrator

- Facility - Occupancy Folder
 - Building A
 - Control Area 1 (Level 1)
 - Ground Floor
 - Lab 1
 - Cabinet 1
 - Cabinet Regulated
 - Fridge 1
 - Shelf 1
 - Lab 2
 - Cabinet 1
 - Lab 3
 - Cabinet 1
 - SR/SOT MGR Test
 - Location B
 - Location C
 - Highly toxic liquefied
 - IFC Storage Room
 - Ground Floor
 - Lab 1

Hazard	Class	Physical State	Inventory Amount	Calculated MAQ (a, d, e)	% of MAQ Used	Group when the MAQ is exceeded
Corrosive	NA	Liquid	0.998535699741306 gal	60 gal	1.66	
Corrosive Liquefied	NA	Liquefied	10 lb	150 lb	6.67	

Material Name: UN 3309 Highly toxic liquefied

CAS Number:

Vol/WT: 10 lb

Health Hazard Indoor Storage

8

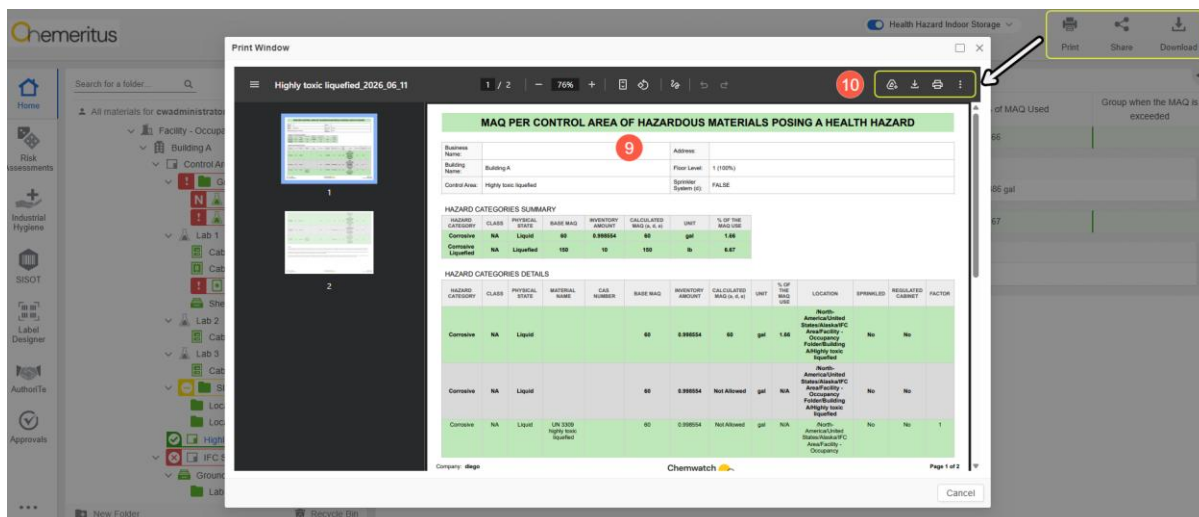
Print

Share

Download

Regulatory Reports

	Hazard	Class	Physical State	Inventory Amount	Calculated MAQ (a, d, e)	% of MAQ Used	Group when the MAQ is exceeded
	Corrosive	NA	Liquid	0.9985535609741386 gal	60 gal	1.66	
	Material Name		CAS Number		Vol/WT		
	UN 3309 highly toxic liquefied				0.9985535609741386 gal		
	Corrosive Liquefied	NA	Liquefied	10 lb	150 lb	6.67	
	Material Name		CAS Number		Vol/WT		
	UN 3309 highly toxic liquefied				10 lb		



The IFC Report document iterates the following categories of information:

- Building Details: Name of the building, address, floor level, sprinkler (true/false), control area
- Hazard categories summary
- Hazard categories details, e.g., material inventory amount
- Document print date

IFC Report document for Health Hazard Storage Indoor (First page display out of 2 pages in this worked example), the identified hazard material category is a corrosive liquid with a base MAQ of 60 gal with no sprinkle and located in a non-regulated cabinet folder.

MAQ PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A HEALTH HAZARD

Business Name:		Address:	
Building Name:	Building A	Floor Level:	1 (100%)
Control Area:	Highly toxic liquefied	Sprinkler System (d):	FALSE

HAZARD CATEGORIES SUMMARY

HAZARD CATEGORY	CLASS	PHYSICAL STATE	BASE MAQ	INVENTORY AMOUNT	CALCULATED MAQ (a, d, e)	UNIT	% OF THE MAQ USE
Corrosive	NA	Liquid	60	0.998554	60	gal	1.66
Corrosive Liquefied	NA	Liquefied	150	10	150	lb	6.67

HAZARD CATEGORIES DETAILS

HAZARD CATEGORY	CLASS	PHYSICAL STATE	MATERIAL NAME	CAS NUMBER	BASE MAQ	INVENTORY AMOUNT	CALCULATED MAQ (a, d, e)	UNIT	% OF THE MAQ USE	LOCATION	SPRINKLED	REGULATED CABINET	FACTOR
Corrosive	NA	Liquid			60	0.998554	60	gal	1.66	/North-America/United States/Alaska/IFC Area/Facility - Occupancy Folder/Building A/Highly toxic liquefied	No	No	
Corrosive	NA	Liquid			60	0.998554	Not Allowed	gal	N/A	/North-America/United States/Alaska/IFC Area/Facility - Occupancy Folder/Building A/Highly toxic liquefied	No	No	
Corrosive	NA	Liquid	UN 3309 highly toxic liquefied		60	0.998554	Not Allowed	gal	N/A	/North-America/United States/Alaska/IFC Area/Facility - Occupancy	No	No	1

Company: diego
User: cwadministrator

Chemwatch
Powered by Innovation

Page 1 of 2
Print Date: 06/11/2026

Extra Notes are also provided for further details on maximum allowable quantities.

Corrosive Liquefied	NA	Liquefied		150	10	150	lb	6.67	Folder/Building A/Highly toxic liquefied	No	No	
Corrosive Liquefied	NA	Liquefied		150	10	Not Allowed	lb	N/A	/North-America/United States/Alaska/IFC Area/Facility - Occupancy Folder/Building A/Highly toxic liquefied	No	No	
Corrosive Liquefied	NA	Liquefied	UN 3309 highly toxic liquefied	150	10	Not Allowed	lb	N/A	/North-America/United States/Alaska/IFC Area/Facility - Occupancy Folder/Building A/Highly toxic liquefied	No	No	1

NOTES:

a. The percentage of maximum allowable quantities of hazardous materials per control area allowed at each floor level within a building shall be in accordance with Table 5003.8.3.2. Percentages shall be of the maximum allowable quantity per control area shown in Tables 5003.1.1(1) and 5003.1.1(2), with all increases allowed in the footnotes to those tables.

d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied accumulatively.

e. Maximum allowable quantities shall be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, exhausted enclosures, or in listed safety cans. Listed safety cans shall be in accordance with Section 5003.9.10. Where Note d also applies, the increase for both notes shall be applied accumulatively.

Company:
User:

Chemwatch
Powered by Innovation

Page 2 of 2
Print Date: 06/11/2026

4.3.2 Filter by IFC Physical Hazard Indoor Storage

The following IFC MAQ Thresholds values will be used to generate IFC Physical Hazard Indoor Storage Report inferencing the hazard class of the materials in an IFC folder.

Storage Indoor Reference Data – MAQ per Physical Hazards

Hazard	Class	Group when the MAQ is Exceed	Solid Pounds (Cubic Feet)	Liquid Gallons (Pounds)	Gas Cubic Feet at NPT (Pounds)	Notification Threshold (%)
Flammable	1A	H-2 or H3	NA	30	NA	75
Liquid	IB and IC	H-2 or H3	NA	1000	NA	10
Oxidizer	3	H-2 or H3	10	(10)	NA	75
	2	H-3	250	(250)	NA	75
	1	NA	4000	(4000)	NA	75

The following steps illustrate how to filter by IFC Physical Hazard Indoor Storage for hazard materials in an IFC folder and generate a report.

Steps: Filter IFC Folder by Health Hazard Indoor Storage

1. Open **Home** module
2. Click on **Folder** location to list material inventory.
3. Click the **Regulatory Reports** dropdown arrow/**Switch** icon.
4. Select the **IFC Physical Hazard Indoor Storage Report** option to run the report information.
5. Click on the **Highlighted Folder** on the tree panel to display the details, e.g., Red-highlighted folder or or , etc., depending on IFC calculation result.
6. The **IFC Physical Indoor Storage Report** details are displayed on the grid. Note that the report grid results are displayed in the identical colour coding highlight depicting the same highlighted folder colour coding, e.g., the green with a tick highlighted folder location.
7. Click the **Expand** button to view further details; Material Name, CAS Number and Volume/Weight.
8. Click the **Print** button to generate a pdf document of the report.
9. The **IFC Report document** displays MAQ per control area of the hazardous materials posing a health hazard.
10. Use the acrobat reader options; Print or Share or Download to save your report.
11. Click the **Regulatory Reports Switch off** to go back to the default folder inventory grid display.

Search for a folder

- All materials for cwadministrator
 - North America
 - United States
 - Alaska
 - IFC Area
 - Facility - Occupancy Folder
 - Building A
 - Control Area 1 (Level 1)
 - Ground Floor** (5)
 - Lab 1
 - Cabinet 1
 - Cabinet Regulated
 - Fridge 1
 - Shelf 1

| Hazard | Class | Physical State | Inventory Amount |
|--------------|---------|----------------|------------------|
| Aerosols (6) | Level 3 | Liquefied | 154.3 lb |

| Material Name | CAS Number | Vol/Wt |
|---------------------------|------------|----------|
| WIRE ROPE CABLE LUBRICANT | | 154.3 lb |

| Hazard | Class | Physical State | Inventory Amount |
|--------------------|---------------|----------------|------------------|
| Aerosols | Level 2 and 3 | Liquefied | 154.3 lb |
| Combustible liquid | II | Liquid | 29.9 gal |

| Material Name | CAS Number | Vol/Wt |
|---------------|------------|----------|
| DIESEL FUEL | | 15.4 gal |
| SOPUROXID 15 | | 14.5 gal |

| Hazard | Class | Physical State | Inventory Amount |
|---------------------|-----------------------------|----------------|------------------|
| Combustible liquid | IIIA | Liquid | 31.8 gal |
| Combustible liquid | IIIB | Liquid | 6.38 gal |
| Cryogenic Flammable | NA | Liquid | 6.37 gal |
| Explosives | Division 1.1 | Solid | 381.4 lb |
| Explosives | Division 1.1 | Liquid | 121.3 lb |
| Explosives | Division 1.4 | Solid | 141.1 lb |
| Flammable gas | Gaseous 1A and 1B (High BV) | Gaseous | 5.26 R3 |
| Flammable liquid | IA | Liquid | 14.2 gal |

Physical Hazard Indoor Storage

8

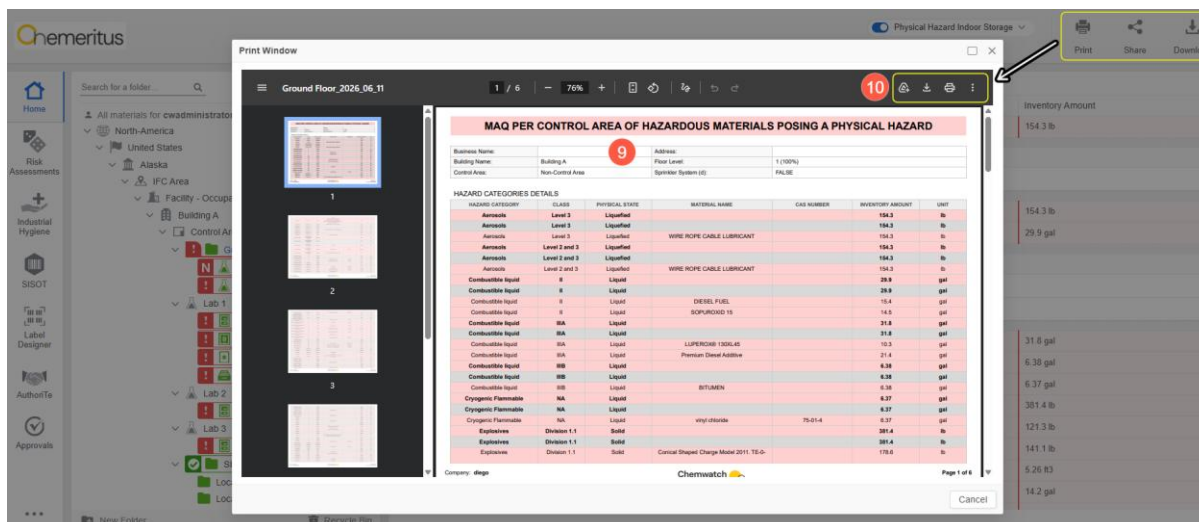
Print

Share

Download

Regulatory Reports

| | Hazard | Class | Physical State | Inventory Amount |
|--|---------------------------|---------------|----------------|------------------|
| | Aerosols | Level 3 | Liquefied | 154.3 lb |
| | Material Name | CAS Number | Vol/WT | |
| | WIRE ROPE CABLE LUBRICANT | | 154.3 lb | |
| | Aerosols | Level 2 and 3 | Liquefied | 154.3 lb |
| | Combustible liquid | II | Liquid | 29.9 gal |
| | Material Name | CAS Number | Vol/WT | |
| | DIESEL FUEL | | 15.4 gal | |
| | SOPUROXID 15 | | 14.5 gal | |



The IFC Report document iterates the following categories of information:

- Building Details: Name of the building, address, floor level, sprinkler (true/false), control area
- Hazard categories summary
- Hazard categories details, e.g., material inventory amount
- Document print date

IFC Report for Physical Hazard Storage Indoor (First Page display out of 6 pages in this worked example)

| MAQ PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD | | | | | |
|--|------------------|-----------------------|---|------------|------------------|
| Business Name: | | Address: | | | |
| Building Name: | Building A | Floor Level: | 1 (100%) | | |
| Control Area: | Non-Control Area | Sprinkler System (d): | FALSE | | |
| HAZARD CATEGORIES DETAILS | | | | | |
| HAZARD CATEGORY | CLASS | PHYSICAL STATE | MATERIAL NAME | CAS NUMBER | INVENTORY AMOUNT |
| Aerosols | Level 3 | Liquefied | | | 154.3 |
| Aerosols | Level 3 | Liquefied | | | 154.3 |
| Aerosols | Level 3 | Liquefied | WIRE ROPE CABLE LUBRICANT | | 154.3 |
| Aerosols | Level 2 and 3 | Liquefied | | | 154.3 |
| Aerosols | Level 2 and 3 | Liquefied | WIRE ROPE CABLE LUBRICANT | | 154.3 |
| Combustible liquid | II | Liquid | | | 29.9 |
| Combustible liquid | II | Liquid | | | 29.9 |
| Combustible liquid | II | Liquid | DIESEL FUEL | | 15.4 |
| Combustible liquid | II | Liquid | SOPUROXID 15 | | 14.5 |
| Combustible liquid | IIIA | Liquid | | | 31.8 |
| Combustible liquid | IIIA | Liquid | | | 31.8 |
| Combustible liquid | IIIA | Liquid | LUPEROX® 130XL45 | | 10.3 |
| Combustible liquid | IIIA | Liquid | Premium Diesel Additive | | 21.4 |
| Combustible liquid | IIIB | Liquid | | | 6.38 |
| Combustible liquid | IIIB | Liquid | | | 6.38 |
| Combustible liquid | IIIB | Liquid | BITUMEN | | 6.38 |
| Cryogenic Flammable | NA | Liquid | | | 6.37 |
| Cryogenic Flammable | NA | Liquid | | | 6.37 |
| Cryogenic Flammable | NA | Liquid | vinyl chloride | 75-01-4 | 6.37 |
| Explosives | Division 1.1 | Solid | | | 381.4 |
| Explosives | Division 1.1 | Solid | | | 381.4 |
| Explosives | Division 1.1 | Solid | Conical Shaped Charge Model 2011. TE-0- | | 178.6 |

Company
User:

Chemwatch
Powered by Innovation

Page 1 of 6
Print Date: 06/11/2026

5.0 Create Templates and Export Reports

This chapter will cover the following objectives:

- Basic templates to generate reports
- User defined templates
- Export data by using user defined templates
- Formatted style reports
- Quick search in method builder to find datapoints



The **Report Generator** mode provides users with advanced templates to export data using a specific report format.

Advanced Mode

The advanced mode enables users to create their own templates using the Method Builder to select specific datapoints to be used to export the data.

Manifest related datapoints, e.g., Product name, Vendor Name, SDS Issue Date, GHS Hazard classification, Volume/Weight, Folder Location, DG Classification and many more...

Report Format:

- XLSX
- XLS
- CSV
- XML
- HTML

i Note that the users must be assigned the respective privileges to use the full scope of the Report Generator feature. Contact your domain administrator for more information.

All created custom report templates are saved in the drop-down list in the advanced mode and enable users to choose the report template name to export the respective report based on the assigned data points in Method Builder.

If the **“Enable Multiple”** checkbox is selected, it will trigger inclusion of extra lines in the report for items that have multiple records for the same material name (assigned to the same Chemwatch Number (CW No.)).

The “**Download Images**” checkbox is a feature that extracts images or graphics into the report based on the classification of the material such as, PPE graphics, GHS graphics.

| Component | Attribute | Use |
|--|---|--|
| Add Report
 | Create a new report template using the method builder datapoints in folder directories. | Enables users to create new report templates by assigning data points to export information through a chosen report format. |
| Edit
 | Edit an existing report template. | Enables users to edit report template data points that were originally assigned or add or remove some to meet your requirements. |
| Recycle Bin
 | Remove an existing report template. | Enables users to delete an existing report template that is no longer required. |
| Start Process
 | Generate the download file | The downloaded file is rendered in the system for further printing, sharing or downloading to external drive or repository. |

5.1 Create an IFC Report Template

The following steps show how to create a simple IFC report template to export manifest related data from own inventory folder into a spreadsheet. In this worked example, the following datapoints are used for data export.

- Material Name
- IFC Health Hazard (Class)
- IFC Physical Hazard (Class)
- Vendor
- GHS Classification
- Current Volume/Weight
- Location
- DG Class
- Packing Group
- Hazchem
- UN Number
- SDS Issue Date

Steps: How to Create an IFC Report Template and Generate a Report in Advanced Mode

1. Open **Home** module .
2. Click on an IFC **Folder**  location to list the materials inventory.
3. Click the **Report Generator** button  on the top right corner of the user interface.
4. Click the ‘**All**’ radio button to enable exporting of all materials in the IFC folder.
5. Click the **Advanced** tab.
8. Select the **datapoints checkboxes**, e.g. in the Identification folder, select the Material Name, Vendor checkboxes and add more datapoints of interest from other folder directories. In the **Regulatory** directory, select the **IFC Health and the IFC Physical Hazards (Class) datapoints** respectively to add them to the template.
9. Enter the name of the report in the **Report Name** text field, e.g., IFC Report Template.

6. Click the **Add +** icon to build a report template.
7. In the **Method Builder** folder directories, select the **downward arrows** ▼ to drill down to the specific datapoints.

- Identification
 - Material Name
 - Vendor
- Regulatory
 - IFC Health Hazard (Class)
 - IFC Physical Hazard (Class)
- Dangerous Goods (DG) Data
 - DG Primary Class
 - DG First Sub Risk
 - Packing Group
- Own Folders
 - Current Volume
 - Current Volume Unit
 - Maximum Volume
 - Maximum Volume Unit

10. Click the **Save Report** Save Report button. The message display on the top right corner confirms successful operation.

Success ×
 User Method Saved

11. Click the **Report field** dropdown arrow to select the newly created template name.
12. Select the **Report Format** from the dropdown arrow, e.g., xlsx
13. Enable Multiple checkbox(optional).
14. Click the **Start Process** button.
15. Wait until the download process is completed at *100% progress bar* and then Click the **Download** icon .
16. **Save** downloaded file.
17. **Open** the downloaded report **File** to view the exported data.

The screenshot displays the Chemeritus web application. On the left, the 'Method Builder' sidebar shows a tree structure of folders and files, with 'Lab 1' selected. The main area shows a table of materials with columns for Material Name, CAS No, Hazard, Hazard Codes, Country, Language, and Vendor. The table lists various chemicals like 'Rox 4300 Diesel Fuel Biocide', 'Iron(III) chloride', 'vinyl chloride', etc. On the right, the 'Report Generator' panel is visible, showing options for report format (XLSX), enabling multiple reports, and a 'Start Process' button.

This screenshot shows the 'Report Generator' dialog box. It has tabs for 'Basic', 'Advanced', and 'Galleria'. The 'Advanced' tab is active. Numbered callouts highlight specific features:

- 4: Points to the 'Selected' radio button.
- 5: Points to the 'All' radio button.
- 6: Points to the 'Report' dropdown menu.

 The 'Report' dropdown is set to 'AAA Test DB'. The 'Report Format' is set to 'XLSX'. The 'Enable Multiple' checkbox is checked. The 'Download Images' checkbox is unchecked. At the bottom, there is a 'Start Process' button and a 'Generated Documents' section.

Method Builder

Search...

- ☐ Has eSDS
- ☐ HSR Number
- ☒ IFC Health Hazard (Class)
- ☒ IFC Physical Hazard (Class)
- ☐ National Inventories
- ☐ NFPA Diamond Graphics
- ☐ NFPA Fire
- ☐ NFPA Health
- ☐ NFPA Reactivity
- ☐ NFPA Special
- ☐ Regulatory Burden
- ☐ SUSMP Poison Schedule
- ☐ Total VOC
- ☒ Dangerous Goods (DG) Data
- ☐ DG Diamond Graphic
- ☒ DG First Sub Risk
- ☒ DG Primary Class
- ☐ DG Second Sub Risk

| Data Point | Split by Rows |
|-----------------------------|--------------------------|
| Material Name | ☐ |
| Vendor | ☐ |
| IFC Health Hazard (Class) | ☐ |
| IFC Physical Hazard (Class) | ☐ |
| DG Primary Class | ☐ |
| DG First Sub Risk | ☐ |
| Packing Group | ☐ |
| Current Volume | ☐ |
| Current Volume Unit | ☐ |
| Maximum Volume | ☐ |
| Maximum Volume Unit | ☐ |
| Licensed Volume | ☐ |
| Licensed Volume Unit | ☐ |

Individual Data Points 14
(For Mixtures) per Ingredient 0

Report Name IFC Report Template Save Report Cancel

| Material Name | CAS No | Hazard | Hazard Codes | Country | Language |
|---------------------------------|----------------|--------|--|---------|----------|
| Rox 4300 Diesel Fuel Biocide | Not Applicable | | H227, H302, H304, H312, H315, H318, H332, H351, H360Fd, H373, H401, H411 | AUS | EN |
| Iron(III) chloride | 7705-08-0 | | H290, H302, H315, H318 | AUS | EN |
| vinyl chloride | 75-01-4 | | H220, H280, H350, AUH019, AUH044 | AUS | EN |
| Chlorotriisopropoxytitanium(IV) | 20717-86-6 | | H228, H314 | AUT | DE |
| Chlorotriisopropoxytitanium(IV) | Not Applicable | | No Data | AUT | EN |
| Naphthalene-d8 | Not Applicable | | No Data | GBR | EN |

Report Generator

☐ Selected
☐ Current page
☒ All

Basic **Advanced** Galleria

Report: IFC Report Template

Report Format: XLSX

Enable Multiple: ☒

Download Images: ☐

Start Process

Generated Documents

Report_IFC Report Template_(06/11/2026_0...)

100%

Download

06/11/2026 Expires: 71h

Downloaded File Report View

| Material Name | Vendor | IFC Health Hazard (Class) | IFC Physical Hazard (Class) | DG Primary Class | DG First Sub Risk | Packing Group | Current Volume | Current Volume Unit | Maximum Volume | Maximum Volume Unit | Licensed Volume | Licensed Volume Unit | Location |
|---------------------------------|------------------------------------|---|--|------------------|-------------------|----------------|----------------|---------------------|----------------|---------------------|-----------------|----------------------|--------------------------------|
| Rox 4300 Diesel Fuel Biocide | Chemwatch | Corrosive Liquid (N/A) Toxic Liquid (N/A) | Combustible liquid (IIIA) | 9 | Not Applicable | III | 0 | kg | 68 | L | 0 | 0 | L North-America/United States |
| Rox 4300 Diesel Fuel Biocide | Chemwatch | Corrosive Liquid (N/A) Toxic Liquid (N/A) | Combustible liquid (IIIA) | 9 | Not Applicable | III | 68 | kg | 222 | L | 0 | 0 | L North-America/United States |
| Rox 4300 Diesel Fuel Biocide | Chemwatch | Corrosive Liquid (N/A) Toxic Liquid (N/A) | Combustible liquid (IIIA) | 9 | Not Applicable | III | 68 | kg | 111 | L | 0 | 0 | L North-America/United States |
| Iron(III) chloride | Merck Life Science (Sigma-Aldrich) | | | 8 | | III | 39 | kg | 39 | kg | 0 | 0 | kg North-America/United States |
| vinyl chloride | Chemwatch | | Cryogenic Flammable (N/A) Flammable gas (Gaseous 1A and 1B (High BV)) Oxidizing gas (Liquefied) Pyrophoric (N/A) | 2.1 | Not Applicable | Not Applicable | 22 | kg | 22 | L | 0 | 0 | L North-America/United States |
| Chlorotriisopropoxytitanium(IV) | Sigma-Aldrich (Merck) | Corrosive Solid (N/A) | Flammable solid (N/A) | 4.1 | 8 | II | 58 | kg | 58 | kg | 0 | 0 | kg North-America/United States |

| Datapoint | Description |
|---------------------------|---|
| Material Name | This is the name of the material registered in the Chemwatch database. All material names are allocated a Chemwatch Number (CW N0.) |
| Vendor | This is the manufacturer of the Safety Data Sheet for a product produced. |
| Location | This is the folder name with path, which identifies where the folder is nested in the folder tree structure. |
| IFC Health Hazard Class | IFC Health Hazard Classification. |
| IFC Physical Hazard Class | IFC Physical Hazard Classification. |
| DG Primary Class | This is the class of dangerous goods that take precedence over any other class. It is the main class in dangerous goods classification for transport. |
| DG First Sub Risk | This is the dangerous goods first sub risk classification. |
| Packing Group | This is the UN Dangerous Group degree of danger they present; categorised as I, II, or III. |
| Current Volume | This is the current capacity of the liquid in a container or in bulk. |
| Current Unit | This is a specified unit measure (metric, imperial, U.S imperial). |
| Licensed Volume | Quantity authorized to store chemicals on site. |
| Maximum Volume | Maximum volume of the material. Maximum volume cannot be less than current volume. |
| Maximum Unit | This is a specified unit measure (metric, imperial, U.S imperial). |
| Location | Forth path |

Appendix

Alternative and Special Documents Descriptions

The documents view mode provides other optional documents when viewing a product's SDS.

- Main Documents
- Alternative Documents
- Special Documents

List of Documents

The table below lists the variety of documents available in documents view mode.

| Main Documents | Alternative Documents | Special Documents |
|---|--|---|
| <ul style="list-style-type: none"> • SDS • Mini | <ul style="list-style-type: none"> • Chemwatch SDS • Chemwatch MINI SDS • First Aid • PPE • Toxicological • Environmental • Fire Fighting • Spills • SOP • Advice to Doctor • CHINA | <ul style="list-style-type: none"> • HPD (Health Product Declaration) • EPD (Environmental Product Declaration) |

Document Type Descriptions

| Main Documents | Description |
|-----------------------|---|
| SDS | Provides access to the manufacturer or vendor SDS, full safety data sheet of the selected product. |
| Mini | Mini is a one-page hazard summary safety data sheet. |
| Alternative Documents | Description |
| Chemwatch SDS | Displays the independently authored full Chemwatch safety data sheet for the selected chemical name. The document is also colour coded depicting the hazard rating of the chemical. |
| Chemwatch Mini | Renders the Chemwatch independently authored one-page hazard summary safety data sheet for the selected chemical name. The document is also colour coded depicting the hazard rating of the chemical. |

| | |
|------------------|---|
| First Aid | Renders the Chemwatch authored First Aid report with first aid measure response to ingestion, eye contact, skin contact, inhalation, and indication of any immediate attention. This information includes exposure symptoms, medical attention and special treatment. The document is also colour coded depicting the hazard rating of the chemical. |
| PPE | Provides access to PPE (Personal Protective Equipment) information on individual protection measures (PPE graphics relevant for the selected chemical), eye and face protection details, skin protection, hands and feet protection, body protection, thermal hazard (if applicable for the selected chemical), respiratory protection (where applicable for the selected chemical). The document is also colour coded depicting the hazard rating of the chemical. |
| Toxicological | Provides access to the most important symptoms and health effects (both acute and delayed) for inhalation, ingestion, skin contact, eye contact, chronic and indication of any immediate medical attention and special treatment. The document is also colour coded depicting the hazard rating of the chemical. |
| Environmental | Renders an environmental report with information on the chemical effects, key chemical properties; solubility, volatility, environmental fate, marine pollutants and ecotoxicity. The document is also colour coded depicting the hazard rating of the chemical. |
| Fire Fighting | Provides the classification details for dangerous good/hazardous chemical and flammability rating (in accordance with NFPA where applicable). The information is important for fighting measures during an emergency and details the chemical properties, emergency response, extinguishing media, fire explosion hazard, fire-fighting details. The document is also colour coded depicting the hazard rating of the chemical. |
| Spills | Renders a spills and disposal report with emergency response information for minor spills, major spills and the class of the chemical and release information for land spills (small, medium). The document is also colour coded depicting the hazard rating of the chemical. |
| SOP | The Standard Operating Procedure (SOP) report provides information on the exposure controls appropriate engineering controls, types of contaminants, precautions for safe handling, storage incompatibility, eye and face protection, skin protection, hands and feet protection, body protection, respiratory protection and any other protection. The document is also colour coded depicting the hazard rating of the chemical. |
| Advice to Doctor | The report provides first aid advice to doctors and symptomatic treatment for acute or short repeated exposure, medical toxicology, dermal, eye, oral and systemic management information. The document is also colour coded depicting the hazard rating of the chemical. |

| | |
|--------------------------|--|
| CHINA | <p>ChInA is an acronym for “Chemical Incident Advisory” codes and the report provides information on how to deal with spills (minor or major), fires, contact with water and other emergencies. The data is codified to give emergency responders details and protective actions at a glance to manage the incidence, whilst minimizing the risk of miscommunication and the nature of the hazard and required response.</p> <p>The document is also colour coded depicting the hazard rating of the chemical.</p> |
| Special Documents | Description |
| HPD | <p>Health Product Declaration report (HPD) report is a standard document that provides transparency about the material/chemical and its health impact associated with building and construction, promoting healthier working environments, and easily identify products that may pose risks to human health and the environment through Chemwatch hazard ratings and regulatory burden.</p> |
| EPD | <p>Environmental Product Declaration (EPD) report provides essential insights into the product’s environmental impact, showcases the product’s carbon footprint and other important sustainability metrics, including water depletion, land/water usage, pollution and more.</p> |

Summary Structure of SDS

Comprehensive SDS structure requirements are available in the code of practice for the preparation of SDS.

| Section | Headers |
|---|---|
| 1. Product identifier & identity for the chemical | <ul style="list-style-type: none"> Product Identifier Other means of identification Recommended use of the chemical and restrictions on use Suppliers name, address, and phone number Emergency phone number |
| 2. Hazard Identification | <ul style="list-style-type: none"> Classification of the hazardous chemical Label elements, including precautionary statements Other hazards which do not result in classification |
| 3. Composition/information on ingredients | <ul style="list-style-type: none"> Identity of chemical ingredients CAS number and other unique identifiers Concentration of ingredients |
| 4. First Aid Measures | <ul style="list-style-type: none"> Description of necessary first aid measures Symptoms caused by exposure Medical Attention and Special Treatment |
| 5. Fire Fighting Measures | <ul style="list-style-type: none"> Suitable extinguishing media Specific hazards arising from the chemical Special protective equipment and precautions for fire fighters |
| 6. Accidental release measures | <ul style="list-style-type: none"> Personal precautions, protective equipment, and emergency procedures Environmental precautions Methods and materials for containment and cleaning up |
| 7. Handling and Storage | <ul style="list-style-type: none"> Precautions for safe handling Conditions for safe storage, including any incompatibilities |
| 8. Exposure controls/personal protection | <ul style="list-style-type: none"> Control parameters – exposure standards, biological monitoring Appropriate engineering controls Personal protective equipment (PPE) |
| 9. Physical and chemical properties | <ul style="list-style-type: none"> Appearance Odour Odour threshold pH Melting point/freezing point Boiling point and boiling range Flash point Evaporation rate |

| | |
|-------------------------------|--|
| | <ul style="list-style-type: none"> • Flammability • Upper/lower flammability or explosive limits • Vapour pressure • Vapour density • Relative density • Solubility • Partition coefficient: n-octanol/water • Auto-ignition temperature • Decomposition temperature • Viscosity • Specific heat value • Particle size • Volatile organic compounds content • % volatile • Saturated vapour concentration • Release of invisible flammable vapours and gases |
| Additional parameters | <ul style="list-style-type: none"> • Shape and aspect ratio • Crystallinity • Dustiness • Surface area • Degree of aggregation or agglomeration • Ionisation (redox potential) • Biodurability or biopersistence |
| 10. Stability and Reactivity | <ul style="list-style-type: none"> • Reactivity • Chemical stability • Conditions to avoid • Incompatible materials and possible hazardous reactions • Hazardous decomposition products |
| 11. Toxicological information | <ul style="list-style-type: none"> • Information on routes of exposure • Symptoms related to exposure • Numerical measures of toxicity • Immediate, delayed, and chronic health effects from exposure • Exposure Levels • Interactive effects • Data limitations |
| 12. Ecological information | <ul style="list-style-type: none"> • Ecotoxicity • Persistence and degradability • Bioaccumulative potential • Mobility in soil • Other adverse effects |
| 13. Disposal considerations | <ul style="list-style-type: none"> • Safe handling and disposal methods • Disposal of any contaminated packaging |

| | |
|----------------------------|---|
| | <ul style="list-style-type: none"> • Environmental regulations |
| 14. Transport information | <ul style="list-style-type: none"> • UN number • Proper shipping name • Transport hazard class(es) • Packing group • Environmental hazards • Special precautions during transport • Hazchem Code |
| 15. Regulatory information | <ul style="list-style-type: none"> • Safety, health, and environmental regulations specific to the product in question • Poisons Schedule number |
| 16. Other information | <ul style="list-style-type: none"> • Date of preparation or review • Key abbreviations or acronyms used |

GHS Pictogram and DG Diamonds

The nine hazard pictograms represent physical, health, and environmental hazards. Chronic health hazards include carcinogenicity, reproductive toxicity, germ cell mutagenicity, specific target organ toxicity, and aspiration toxicity.

Hazard Pictograms and ADG

| Hazard Pictograms | GHS Hazard | Dangerous Goods class labels (pictograms) | Dangerous goods classes |
|--|--|--|--|
| 
Exploding bomb | Explosives
Self-reactive
Organic peroxides | 


 | Explosive |
| 
Flame | Flammables
Self-reactives
Pyrophorics
Self-heating
Emit flammable gas in contact with water
Organic peroxides | 




 | Flammability
(Liquid, Solid or Gas)
Pyrophoric,
Emit
Flammable Gas
Organic Peroxide |
| 
Flame over circle | Oxidisers | 
 | Oxidiser
Oxidising gas |
| 
Gas Cylinder | Gases under pressure | 


 | Non-toxic non-flammable gas,
flammable gas,
oxidising gas,
toxic gas |

| | | | |
|---|--|---|-----------------------------------|
| 
Skull and crossbones | Acute toxicity |   | Acute toxicity
Acute Toxic gas |
| 
Exclamation mark | Acute toxicity
Skin irritants
Eye irritants
Skin sensitisers | No equivalent | |
| 
Health hazard | Carcinogens
Respiratory sensitisers
Reproductive toxicants
Target organ toxicants
Germ cell mutagens | No equivalent | |
| 
Corrosion | Eye corrosion
Skin corrosion
Corrosive to metal |  | Corrosive to metals |
| 
Environment | Aquatic toxicity.
Not covered within the scope of workplace hazardous chemicals requirements |  | Environmental hazard |
| No equivalent hazard pictogram | |  | Miscellaneous dangerous goods |
| Not covered within the scope of workplace hazardous chemicals requirements | |  | Infectious |

| | | |
|--|---|-------------|
| Not covered within the scope of workplace hazardous chemicals requirements |  | Radioactive |
|--|---|-------------|

NFPA Diamonds

NFPA 704 diamond



NFPA Diamonds and Colour Coding

The four divisions are typically color-coded, with blue indicating level of health hazard, red indicating, flammability, yellow (chemical) reactivity, and white containing special codes for unique hazards. Each of health, flammability and reactivity is rated on a scale from 0 (no hazard) to 4 (severe risk). For more information, visit <http://www.nfpa.org/>.

Section 2 of Gold MSDS will depict the applicable NFPA diamond where applicable. Note that the SDS Settings panel will have to be checked/marked for this diamond or graphic to show in the MSDS.

| Health (Blue) | | Flammability (Red) | |
|---------------|---|--------------------|---|
| 0 | Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials (e.g., water) | 0 | Materials that will not burn under typical fire conditions (e.g., carbon dioxide), including intrinsically noncombustible materials such as concrete, stone and sand. (Materials that will not burn in air when exposed to a temperature of 816°C (1500°F) for a period of 5 minutes.) |
| 1 | Exposure would cause irritation with only minor residual injury (e.g., acetone) | 1 | Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur (e.g., mineral oil). Includes some finely divided suspended solids that do not require heating before ignition can occur. (Flash point at or above 93.4°C (200°F) |
| 2 | Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g., diethyl ether) | 2 | Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur (e.g., diesel fuel) and some finely divided suspended solids that do not require heating before ignition can occur. Flash point between 38°C (100°F) and 93°C (200°F) |

| | | | |
|---|---|--|--|
| <p>3</p> | <p>Short exposure could cause serious temporary or moderate residual injury (e.g., chlorine)</p> <p>4</p> <p>Very short exposure could cause death or major residual injury (e.g., hydrogen cyanide, phosphine, carbon monoxide, sarin)</p> | <p>3</p> <p>4</p> | <p>Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions (e.g., gasoline). Liquids having a flash point below 23°C (73°F) and a boiling point at or above 38°C (100°F) or a flash point between 23°C (73°F) and 38°C (100°F)</p> <p>Will rapidly or completely vaporize at normal atmospheric pressure and temperature or is readily dispersed in air and will burn readily (e.g., acetylene, diethylzinc). Includes pyrophoric substances. Flash point below 23°C (73°F)</p> |
| Special (White) | | Instability/Reactivity (Yellow) | |
| <p>The white "special notice" area can contain several symbols. The following symbols are defined by the NFPA 704 standard.</p> | | <p>0</p> <p>Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium)</p> | |
| <p>OX</p> | <p>Oxidizer (e.g., potassium perchlorate, ammonium nitrate, hydrogen peroxide)</p> | <p>1</p> <p>2</p> | <p>Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)</p> <p>Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g., white phosphorus, potassium, sodium)</p> |
| <p>W</p> | <p>Reacts with water in an unusual or dangerous manner (e.g., cesium, sodium, sulfuric acid)</p> | <p>3</p> <p>4</p> | <p>Capable of detonation or explosive decomposition but requires a strong initiating source, must be heated under confinement before initiation, reacts explosively with water, or will detonate if severely shocked (e.g. ammonium nitrate, chlorine trifluoride)</p> <p>Readily capable of detonation or explosive decomposition at normal temperatures and pressures (e.g., nitroglycerin, chlorine azide, chlorine dioxide)</p> |
| | <p>SA</p> <p>Simple asphyxiant gas. Specifically limited to the following gases: nitrogen, helium, neon, argon, krypton and xenon.^[2]</p> | | |

Chemwatch Elearning

Chemwatch provides a training library as a gateway to learning more about the software application through our learning site. Use the link provided to access the elearning quick start guide, products, translations, and courses.

| QUICK START GUIDE | PRODUCTS | TRANSLATIONS | COURSES |
|--|---|--|--|
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Training

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IT'S NOT THE HAZARD IT'S THE RISK!

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