

Fact-sheet - How to establish a chemical inventory?



What is the objective?

The chemical inventory is needed to:

- **List** all the chemical products used and stored on-site (whatever is the use: for production processes, cleaning operations, wastewater treatment, spot removing, etc.);
- **Collect** the basic information about all these products: supplier name, SDS¹ availability, CAS number², stock, etc.

The objective of the chemical inventory is to get all the data in **one single format table** and to make sure the **content is up-to-date** and corresponds to the actual chemical products stock available on-site.



How to achieve this objective?

Step 1: Create a template for the chemical inventory as per the model below (if no template provided by your customer).

Step 2: Fill-in the columns as per the example below:

Chemical inventory template								
Factory name:								
Responsible person:								
Date of last update:								
1	2	3	4	5	6	7		8
Area/ Process	Chemical name / commercial name	Substances and CAS numbers	Type of chemical	Chemical supplier	Chemical Manufacturer	MSDS		Quantity stored on-site (to date*) *see date of last update
						Original	Local language short version	
Denim washing	Oxalic acid	Oxalic Acid, Anhydrous (0.5%): 144-62-7 Oxalic Acid, Dihydrate (99.5%): 6153-56-6	Acid	Star syndicate	AquaPhoenix Scientific.Inc.	Yes	Yes	100 kg
Denim washing	Denimcol Binder PAC	2,2'-Oxybisethanol: 111- 46-6	Binder	RH Corporation	CHT Bezema	Yes	to be prepared	80 kg

Indicate for which process or for which purpose the chemical is used	Indicate the name of the chemical as it appears on the label on the container	Indicate the substances (ingredients) of the chemical formula as per the label and SDS
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CAS numbers, chemical supplier/manufacturer names and SDS are **key information**, in particular, when the factory will have to demonstrate that the chemicals used are in compliance with a Restricted Substances List (such as ZDHC MRSL)

This template is an example and showing the minimum requirements but columns can be added such as “chemical product provided with original label Yes/No”, “chemical storage area”, etc.



- **Appoint a manager** to be in charge of the chemical inventory update and write a process regarding how to update the inventory: what should be the frequency? E.g. As per new chemical orders arrivals;
- **Highlight** (e.g. with red text) the missing information or the pending task such as the SDS translation in local language. For missing inputs, the factory has to request the chemical supplier to provide the missing information.

¹ **Safety Data Sheet** (SDS or also mentioned as MSDS): is a document provided for each chemical product which lists the properties of this particular chemical product and provide information on how to safely use it, store it, dispose it, what to do in case of accident, etc.

² **CAS number**: “Chemical Abstract Service”. It is an “ID number” specific to every chemical substance (ingredient of a chemical product).



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Common non-compliances

Chemical product found on-site not included in the inventory

The factory doesn't have a system to ensure that every chemical supplied is registered in the inventory. The inventory might not be updated regularly. Mistakes can also be related to inconsistencies between the name on the label, the name in the SDS and the name in the chemical order receipt. This is why it is important to cross-check all information provided by the chemical supplier.

Chemical inventory incomplete

Case 1: in the picture below, you can see a factory's chemical inventory where the CAS numbers are not indicated for the chemical substances of each product:

Inventory List - Chemicals										
Serial No.	Purpose	Full Trade Name	Manufacturer	Country of Origin	Function	MSDS available in English	ZDHC Certificate/Declaration (Y/N)	Stock Amount(Kg)	Bluesign Approved (Y/N)	Remarks.
1	Pretreatment	Imperial DL1 Up 200		Switzerland	Detergent	Yes	Yes	6650	N/A	
2		JINTEX-Eco- ACN		Taiwan	Anti-Creasing Agent	Yes	Yes	15000	N/A	
3		JINTEX Eco-ST-201		Taiwan	Stabilizer	Yes	Yes	400	N/A	
4		HYDROGEN PEROXIDE		Bangladesh	Bleaching Agent	Yes	No	850	N/A	
5		ACETIC ACID		Thailand	Acid	Yes	No	20900	N/A	
6		SIRRIX TA		Switzerland	Acid	No	Yes	543	N/A	
7		CAUSTIC SODA		China	Alkali	Yes	No	2300	N/A	
8		SODA ASH		Romania	Alkali	Yes	No	1400	N/A	
9		MA TERGE CRC		Canada	Multifunctional Chemical	Yes	Yes	750	N/A	
10		MA STAB LC		Canada	Stabilizer	Yes	Yes	450	N/A	
11		OXILOST Z		Turkey	H2o2 Killer	Yes	Yes	750	N/A	
12		OXALIC ACID		China	Acid	No	No	82	N/A	
13		MATCLEAN OSR		Bangladesh	Multifunctional Agent	Yes	Yes	920	N/A	
14		BLUFF F		Thailand	Labelling Agent	No	No	179	N/A	
15		JINTEX GD Con		Taiwan	Multifunctional Agent	Yes	Yes	112	N/A	
						No	No	869	N/A	

Case 2: in the picture below, you can see a factory's chemical inventory where the area of use, chemical supplier name, commercial name, MSDS availability, etc. are missing:

Chemical inventory list distribution room				
No	Khmer Name	Name	Cas#	Remark
1	អាស៊ីត អាស៊ីត ក្រូម	Acetic acid glacial	64-19-7	
2	ផេនិច យេក ល្បឿន អ៊ីចេន	Anti-Back Staining Agent	N/A	
3	អាកុប៊ីត	Arkofix	111-46-6	
4	ប្រាយរចនា	Brightener	N/A	
5	ស៊ីលីកាស អ៊ីដ្រូស៊ីត ប្រេមីយ៉ូម 800	Cellulase enzyme WI,800	N/A	
6	ស៊ីត្រិក អាស៊ីត	Citric acid monohydrate	5949-29-1	
7	លីត្រីន លីត្រីន	Detergent Liquid	N/A	
8	លីត្រីន ប្រេមីយ៉ូម	Detergent powder	N/A	
9	ហ្វិកស៊ីន អ៊ីចេន	Fixing agent	N/A	
10	ហ្វ្រូម៉ិក អ៊ីដ្រូស៊ីត	Hydrogen peroxide	7722-84-1	
11	អ៊ុកសាលិក អាស៊ីត	Oxalic acid	114-62-7	
12	ផូស្វ័រិក អាស៊ីត	PHOSPHORIC ACID	7664-38-2	
13	ប៉ូលីអាក្រីលេមីដ(ភីអេអិម)	Polyacrylamide (PAM)	5/8/9003	
14	ស៊ីលីកាស	Silicone	N/A	
15	សូដា អាស	Soda ash	497-19-8	
16	សូដ្យូម ហ្វ្រូស៊ីត	Sodium Hydroxide-Flaker(Caustic Soda)	01310-73-2	
17	សូដ្យូម មេតាប៊ីស៊ុលហ្វីត	Sodium metabisulphite	7681-547-4	
18	សូដ្យូម ស៊ុលហ្វាត	Sodium sulphate	7757-82-6	
19	សូដ្យូម ធ័រស៊ុលហ្វាត	Sodium thiosulfate	7772-98-7	
20	ប៉ូលីអាលុយមីញ៉ូម ក្លរាយ	Solipac(Polyaluminium Chloride)	1327-41-9	