



CENTER FOR NANOSCIENCE AND TECHNOLOGY FOR RESEARCH AND ENTREPRENEURSHIP

Title : Online and Unified Repository and Chemical Management

Inventory System (OUR-CheMISt)

Proponent : Rey Y. Capangpangan

Center Director, Nano-CeNTRE

Rationale:

Caraga State University is undoubtedly one of the fast-growing State Universities in Mindanao, particularly in output generations through research and innovations. This transformation has been a product of the continuous upgrading of research facilities to respond to the university's growing need to address various areas with significant implications for the region's economic growth. In particular, chemistry-related and technological innovations are some of the significant areas being implemented in the university. In accord with the unceasing development of the various research facilities is an inevitable increase in the amount/volume of chemical reagents required in implementing various research projects. It is expected then that as the university is committed to fulfilling its mission and vision in producing research-derived technologies, a considerable volume of chemicals and reagents will accumulate over time. Hence, effective and proper management of the chemicals and inventory system is essential. A comprehensive chemical inventory and management system are of paramount importance to efficiently operate all research laboratories that use and store chemicals.

Furthermore, proper management of chemicals is also indispensable to prevent any malicious and inappropriate use of the chemicals and prevent any attempted bad acts, especially those with identified security concerns. Because these chemicals can be found in any laboratories or any R&D centers/facilities here at the Caraga State University, it is important to provide educators with critical chemical security information central to their use. It is envisioned, moreover, that developing a unified system of chemical management and inventory system can help in the establishment of a harmonized chemical inventory for the use of the different stakeholders, especially in the preparation of the procurement plans for the acquisition of chemicals to prevent purchasing of multiple quantities of the same chemicals. Likewise, the proposed inventory and chemical management system is useful in promoting the concept of a "borrowing-exchange" mechanism to prevent the acquisition of multiple quantities of the same chemicals to avoid the accumulation of chemical wastes and their corresponding by-products.

## **Objective:**

The proposal's main objective is to develop an online portal for the chemical inventory of all available/procured chemicals and reagents in the different laboratories in the university.

Specifically, it aims to:

- 1. Create an online platform for the chemical inventory (all chemicals/reagents purchased in the university).
- 2. Develop a chemical management system, particularly in regulating the procurement of multiple quantities of the same chemicals/reagents.
- 3. Harmonize the procurement system among all of the R&D centers/facilities that require chemical reagents.

### Strategy of Implementation

1. Seek the assistance of ICT and the College of Information Science in developing the online





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- repository of all of the chemicals. This online repository and inventory system shall be lodge on the CSU website.
- 2. Designate the Chemistry Laboratory In-Charge (Licensed Chemist) to be the focal person for the online compilation of all procured chemicals/reagents (**OUR-CheMISt Focal Person**).
- Ask/require all the center/laboratory heads of the different R&D facilities and/or laboratories
  who are handling and procuring chemicals to submit a complete list of chemicals/reagents
  procured, including the Material Safety Data Sheet with the CAS number of the
  chemicals/reagents to OUR-CheMISt Focal Person for compilation.
- 4. The OUR-CheMISt Focal Person shall be responsible for storing and updating all of the available chemicals/reagents to the online system (developed by the CCIS/ICT) with the following necessary information: (a) Name of the Chemicals/reagents, (b) CAS Number, (c) Date Purchased, (d) Date Opened, (e) Location (name of the R&D Laboratory/facility), and (f) expiration date, if any.
- 5. The updating of the online portal will be done every quarter (at least) or depending on the necessity, and it will be monitored by the OUR-CheMISt Focal Person.
- 6. The head of the R&D facility/laboratory will be asked to submit the list of procured chemicals/reagents to the OUR-CheMISt Focal Person every time they procure chemicals/reagents.
- 7. The OUR-CheMISt Focal Person shall print and submit the updated Chemical Inventory at the end of the year to the Chemical Safety Management Committee Chair or to the appropriate authority for reporting purposes.

## **Budgetary requirements**

Web hosting*	12,000.00/year
IT Personnel**	-
OUR-CheMISt Focal Person**	-
Total	12,000.00/year

<sup>\*</sup>Estimated price per year. This can also be incorporated in the expenses incurred by the web subscription of the university.

# Log Frame

Objectives	Measurable Indicators					
Goal:						
To develop an online portal for the chemical inventory of all available/procured chemicals and	Complete list of purchased chemicals and reagents with unique tag/code	List of compiled chemicals (with the desired chemical information)	If this proposal will be approved by the Board			

<sup>\*\*</sup>no additional monetary compensation, but this can be offset in a form of de-loading, whichever is favorable.





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reagents in the different laboratories in the university			
Purpose:			
To create a harmonized online platform for the chemical inventory (all chemicals/rea gents purchased in the university)	Complete list of chemicals being purchased by the university.  Complete list of chemicals identified under PNP and PDEA control list	Compiled chemicals  Summary report  Online portal	Available personnel to perform the tasks
Develop a chemical management system, particularly in regulating the procurement of multiple quantities of the same chemicals/rea gents	Streamlined protocol on the management of chemicals and possibly on how these chemicals be treated.	Database of chemicals	
Harmonize the procurement system among all of the R&D centers/facilitie s that require chemical reagents	Consolidated procurement plan (those projects which requires chemicals/reage nts)		



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Act	ivities:		
1	Conduct meetings and planning with the IT personnel	Number of meetings conducted	Attendance and recordings
2	Collect and compile all the purchased chemicals and reagents.	Numbers of chemicals compiled	Record/logbook on the list of chemicals
3	Development of an online portal		
4	Inputting of all the required chemical data in the online portal		
5	Testing of the online portal		
6	Finalizing the online portal		
7	Regular Monitoring and reporting	Actual report	

# **Gannt Chart**

Activities		1	2	3	4	5	6	7	8	9
1.	Conduct meetings and planning with the IT personnel									
2.	Collect and compile all the purchased chemicals and reagents									
3.	Development of an online portal									
4.	Inputting of all the required chemical data in the online portal									
5.	Testing of the online portal								_	



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6.	Finalizing the online portal					
7.	Monitoring and reporting					

#### **Term of Reference**

### **OUR-CheMISt Focal Person**

He/she is responsible to:

- 1. Collect and compile all the data (related to the chemicals being purchased) from the different research centers/laboratories.
- 2. Coordinate with the Chemistry Laboratory In-charge, project/program leaders, center directors and laboratory heads in compiling the necessary information f the stocked and newly purchased chemicals such as (a) name of the chemicals, (b) CAS Number, (c) date purchased, (d) date opened, (e) location of the chemicals/reagents, and (f) expiration date, if any.
- 3. Store and update all the required information (as enumerated above) to the online portal specifically made for this purpose.
- 4. Work closely to the IT personnel in-charge in updating and storing of these information to the online system.
- 5. Submit a yearly chemical inventory report to the Chemical Safety Management Chair or to appropriate authority.

### IT Personnel

He/she is responsible to:

- Design an online portal for the chemical inventory system with the required data as enumerated above (name of chemicals, CAS number, date purchased, date opened, location of the chemicals/reagents, expiration date).
- 2. Assist the OUR-CheMISt focal person in storing and updating chemical information in the online portal.
- 3. Maintain, test, report and troubleshoot if there are bugs and other issues in the online portal.
- 4. Work closely with the OUR-CheMISt focal person in running the online portal.

Prepared by:

REXY. CAPANGPANGAN, Ph.D.

Director, Nano-CeNTRE