Project Ideas working with Purdue University

Mark Manfredi, BMS, Chair of CSL Advisory Panel
Gabrielle Whittick, GMW Consulting, Pistoia Executive Project Manager of CSL
Qiong Yuan, CAS, Executive Director of CSL

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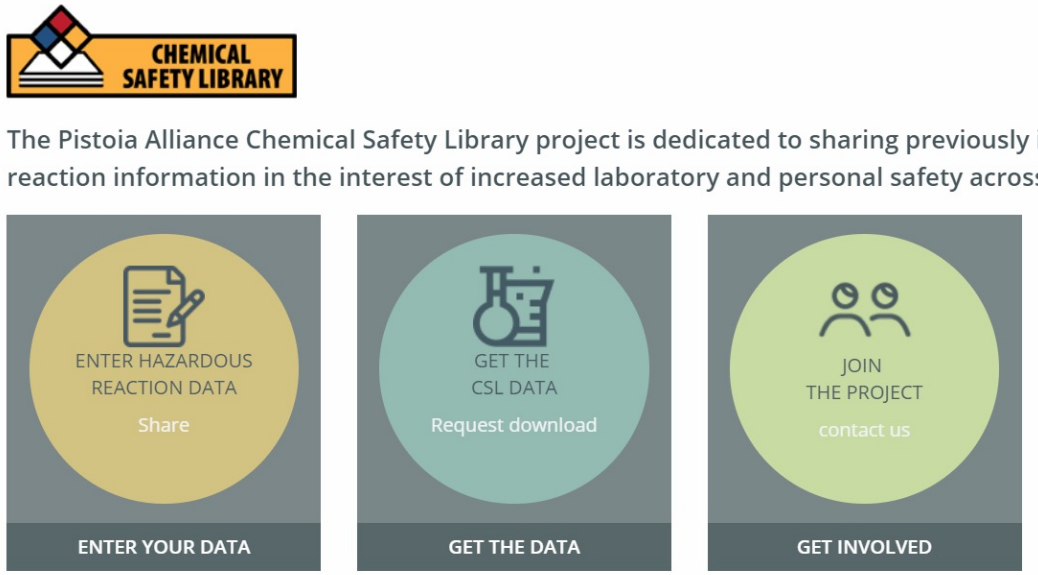
Goal and value proposition



https://www.pistoiaalliance.org/projects/chemical-safety-library/

https://www.cas.org/resource/blog/safety-in-numbers

The Pistoia Alliance *Chemical Safety Library* project will **capture** and **share** previously inaccessible **reaction incident** information.

Making this data available to the chemical community at large will allow companies to **learn and avoid reaction incidents** experienced by the wider community, **enhancing overall laboratory safety.**

Project Objective : To grow the CSL Data Collection with hazardous information about a reaction involving 2 or more reagents.

- Step 1 – Define the Process.
  - Identify a collection of safety data sources that will be used in this data mining project, for example, Brethericks, journals, safety letters, lessons learned, safety articles etc.
  - Develop a work flow starting with selecting a data source and ending with a new entry describing a hazardous incident in the Chemical Safety Library (CSL).
  - Clarify how to recognize a relevant hazardous incident from a data source that would add value when entered to CSL.
  - Develop a data mining process that identifies relevant hazardous reaction information.
  - Agree how to extract the safety data relevant to a hazardous incident , what data is needed so that a meaningful description is prepared .
  - Validate the proposed new entry with the team before adding it to CSL.

Project Objective : To grow the CSL Data Collection

- Step 2 – Add new hazardous incidents to CSL .
  - Gain access to CSL and familiarize the data entry process.
  - Review the CSL data source entries to check if there is already an entry that seems to be the same as the one you are about to enter. If so, only enter it if it has additional or different information associated with it.
  - Enter the new hazardous incident into CSL, where it will be flagged for curation review by the Advisory Panel.
  - Once there are a few new hazardous incidents , look for any patterns or useful trends that could present additional value to the community.
  - Summarize the progress with the data mining exercise and capture the findings.

Pistoia CAS will help

- Pistoia/CAS will set up a support team, including mentorship and technical support.
- The team will offer training on CSL and share ideas about valuable data entries.
- The team can arrange regular “checkin” meetings but also be available to answer ad-hoc questions.
- The team can offer support, contact time as directed by Purdue.
- The team will ensure that the students are clear about the benefits of this project and the value it will add to the community.
- The team can share the output and promote Purdue’s involvement externally as directed by Purdue.