Search Strategy for Finding Lab Safety Information for a Reagent

Sample Search = Triphosgene (CAS RN = 32315-10-9)

In the Lab Safety Guide, the last three sections that begin with “Find” contain databases you can search to find information. Other sections include mostly browsable resources.

Preliminary lookup to find a CAS RN
- Because substances may have different synonyms, the quickest way to search most databases is by using a CAS Registry Number. So, once you locate your compound, jot down the CAS RN.
- Try the Merck Index or ChemID Plus or the Combined Chemical Dictionary for common compounds. Use SciFinder or Reaxys for more esoteric compounds.

Start Here: Find MSDS and Properties
- CHEMPendium in the Canadian Center for Occupational Health and Safety’s website is a great place to check first. It includes safety resources and MSDS.
  - Search by name or CAS RN.
- Combined Chemical Dictionary contains key hazardous and toxic chemical information.
  - Browse or search by name, CAS RN, or structure.
- e-EROS – the Electronic Encyclopedia of Reagents for Organic Synthesis is a great source for detailed safety information about a reagent.
  - Browse by Reagent Name.
  - Better to search by Reagent Name.
  - Can also search by chemical structure, and by structure and reaction properties.

More indepth: Find Substances and Reactions
- Reaxys is the second largest database for searching substances and reactions. About 400 journals are reviewed and new content is added quarterly. Some patents are also included in the database.
  - Search by name, CAS RN, or structure.
  - Substances may contain a “Use” field that has laboratory handling information.
  - After doing a reaction search, it is possible to get a summary of what reagents were used. Some experimental details are also included in search results. Consult full-text articles for full information.

- SciFinder is the largest chemical substance and reaction database. CAS indexes content from over 10,000 journals is updated daily. Patents from 62 authorities are included.
  - Search by name, CAS RN, or structure.
  - For reactions, experimental details and a summary view of reagents used can be viewed. It is also possible to group reaction search results by the type of transformation that occurred. Lab handling information may be included in the Overview or Experimental Procedures sections. Consult full-text articles for full information.