



**Sigma-Aldrich®**

**Strategic Service Solutions™**

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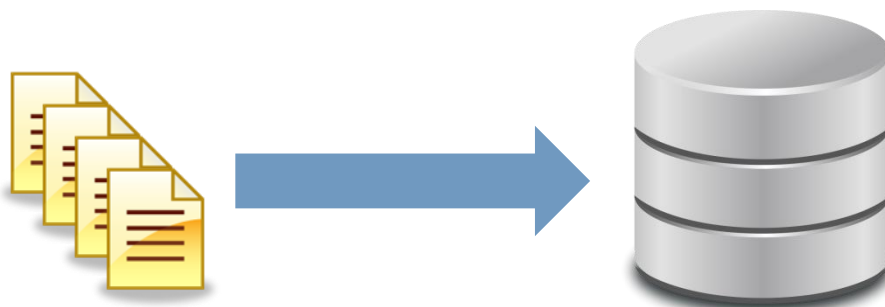
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# Safety and Compliance is the challenge.

## Chemical Safety & Regulatory Data (CSRD)

- Includes:

- Important identifying properties of chemicals
- Physical properties
- Safety data similar to Sigma-Aldrich SDS documents and a link to all SDS's
- Regulatory data from government regulations and standards.
- New GHS Hazard Class information
- Transportation data



Sigma-Aldrich data in your systems.

**CSRD** >500,000 total unique material numbers, >45,000 unique CAS #s  
Approximately 18 Million Data Points

#### **Basic Data**

Name  
Synonyms  
Name suffix  
CAS #  
Molecular formula  
SMILES  
EINECS #  
INDEX #  
REACH #

#### **Physical Properties**

Melting point  
Boiling point  
Flash point  
pH  
Density  
State of matter  
Molecular weight

#### **Handling and Storage**

Storage remarks  
PPE – body, hands, eyes, respiratory  
Fire & explosion protection  
Advice on safe handling

#### **Chemical Composition**

Chemical composition

#### **Safety Response**

First aid: general, eye, skin, ingestion & inhalation  
Signs and symptoms of exposure  
Potential health effects: eye, skin ingestion, inhalation

#### **Transportation (IATA, IMO, ADR)**

UN number  
Proper shipping name  
Primary and secondary hazard classes  
Packing group

#### **Stability and Reactivity**

Chemical stability  
Possibility of hazardous reactions  
Materials and conditions to avoid

#### **Additional Properties**

Form  
Color  
Vapor Pressure  
Odor

#### **Hazard Communication**

##### **GHS Labeling Elements (according to Regulation (EC) No 1272/2008)**

Hazard symbols  
Signal word  
Hazard statements  
Precautionary statements  
Supplemental hazard information

##### **GHS Classification (according to Regulation (EC) No 1272/2008)**

Hazard class  
Hazard category  
Route of exposure  
Hazard statements

# Application

## 1. Search Chemicals by Hazards

Create lists of chemicals sorted by hazard warnings.

Toxic by inhalation



Highly flammable. Causes severe burns. Avoid heat/sparks. Wear safety goggles with faceshield.



## 2. Create Safety Sheets or Labels

To be used as quick reference guides or “in-process” safety warnings

## 3. Make Inventory/Storage Decisions

Decide which materials should not be stored in proximity to each other. Know the hazards contained in a laboratory.



# Chemical Safety and Regulatory Data

- Sigma-Aldrich data in your systems
- Updated regularly
- Information on both hazard communication and regulatory compliance
- Customizable to meet your needs



# SIGMA-ALDRICH EDUCATION

Safe Handling of Air-sensitive Pyrophoric Substances



Two ways to access:

- Sigma-Aldrich's online server:
  - A web application hosted by Sigma-Aldrich for customers without their own learning management system
- Installed in customer's LMS
  - Industry standard format to easily interface with the customers existing learning management system



# Comprehensive Content

Lab Safety Training Series | **Air-Sensitive Pyrophoric Substances**

### Equipment Setup


Now that James has selected equipment, it's time to set up for the liquid transfer.

Proper setup and equipment checks create the safest lab environment.

This section will cover:

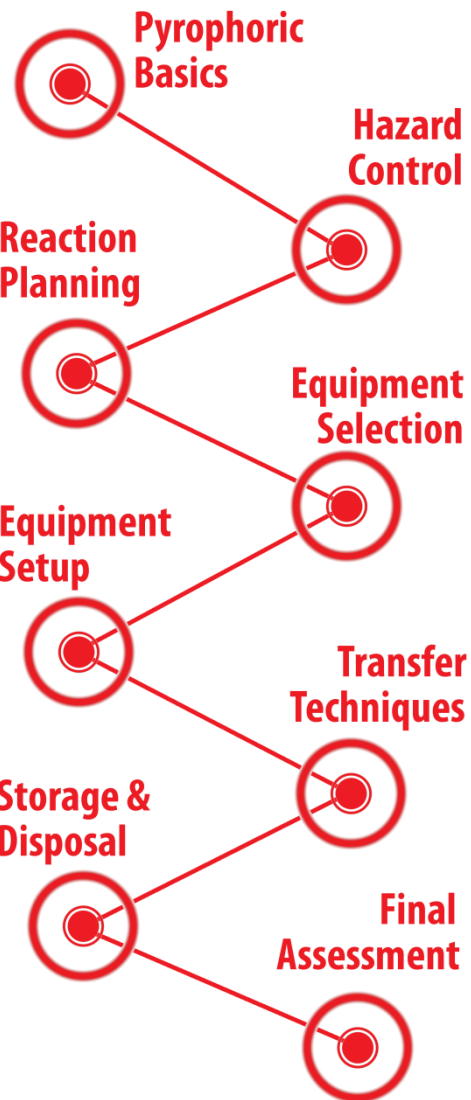
- Preventing air contact
- The syringe leak test
- The funnel leak test
- Apparatus assembly

We'll revisit James later to help him set up his equipment properly.



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**Thank You For Your Time.**