

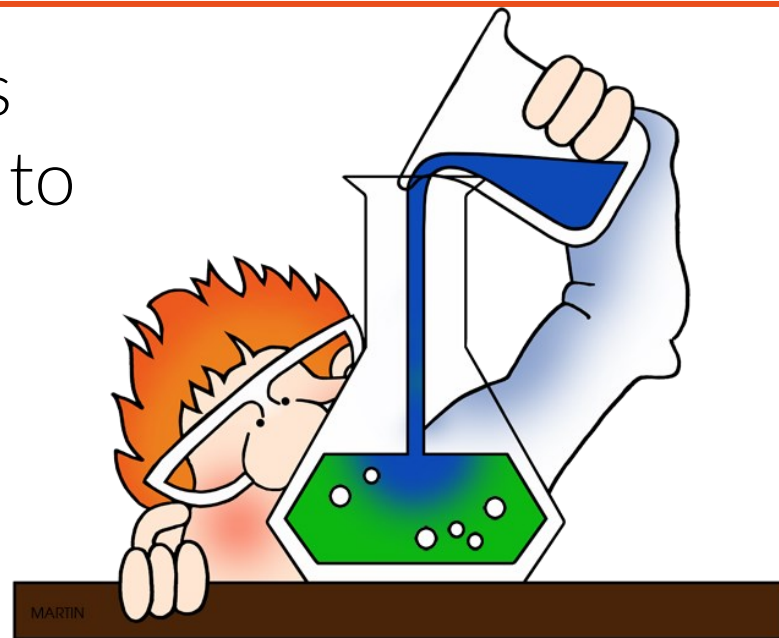
# A future career in Chemical Hazards Communication?

The Chemical Hazards  
Communication Society

Reaching Out

The history of the chemicals industry can be traced back to ancient times

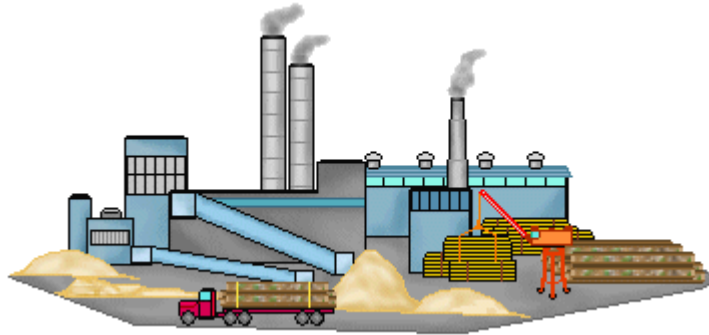
Alkali and limestone were being combined to make glass by Middle-Eastern artisans as early as 7,000 B.C.



In the Middle Ages, alchemists were experimenting with chemicals for a variety of uses

By 1635 saltpeter was being produced to make gunpowder and chemicals for tanning

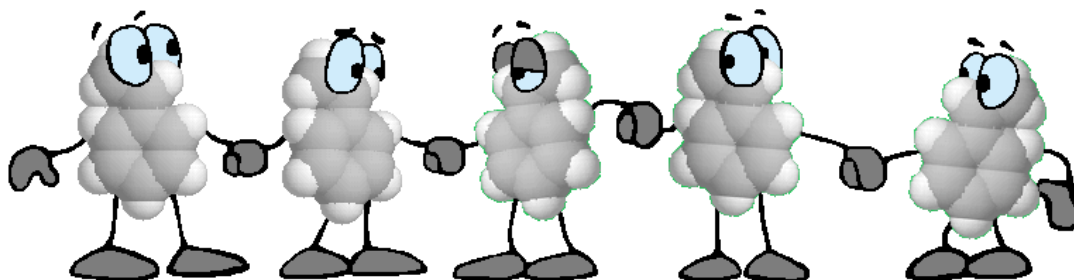
- It was the 19th Century (c.) before the chemical industry really took shape during the industrial revolution



- The first man-made plastic was created by Alexander Parkes who demonstrated it at the **1862 GREAT INTERNATIONAL EXHIBITION IN LONDON**
- Mid c.19, artificial fertiliser plants appeared in Britain, Germany & Russia



- Advances in organic chemistry during the 2<sup>nd</sup> half of the c.19 paved the way for the production of synthetic dyes for the textile industry
- By World War II, petrochemicals were being used in the US to produce polymers and fibres



- In the 1960s, there was an increase in the production of organic chemicals from oil & gas



## The Start of Chemical Regulation

- The Dangerous Substances Directive, 67/548/EEC introduced EU-wide provisions on the classification, packaging and labelling of dangerous substances
- In Japan, the Chemical Substances Control Law was introduced in 1973 following a mass poisoning incident involving the contamination of rice bran oil used as a feed supplement in poultry farms with polychlorinated biphenyls (PCBs)

## Seveso Directive

- In 1982, the Control of Major Accident Hazards Regulation (COMAH), 82/501/EEC) introduced in Europe following an accident at an industrial plant in Seveso, Italy in 1976
- Became known as the Seveso Directive



[Seveso - Major accident hazards - Environment - European Commission \(europa.eu\)](http://europa.eu)

## Bhopal 1984

- In 1984, the worst chemical disaster in history occurred when methyl isocyanate (MIC) gas was leaked from a pesticide plant in Bhopal, India
- Over 500,000 people were exposed to MIC, which travelled to small towns located around the plant resulting in the loss of thousands of human lives and prolonged health impacts to survivors
- The disaster along with other chemical incidents led to the tightening of COMAH Regulation



## The Dangerous Preparations Directive

- Eventually, the Dangerous Preparations Directive (88/379/EEC) was introduced setting out the classification, labelling and packaging requirements for mixtures



The Directive included the provision for the communication of essential information via a 'safety data sheet', as well as labels

## Competency concerns

- There were concerns regarding competency, especially of mixture producers now required to classify, label and package products according to new and demanding regulatory requirements

## **RULES & REGULATIONS**

- Produce documents containing essential information for users to conduct workplace chemical safety assessments

## The formation of CHCS

- CHCS was formed on the 14<sup>th</sup> April 1994 at the offices of the Health & Safety Executive in the presence of around 40 people from Government and Industry
- Creating a knowledge hub via an affordable and personal membership system
- Training & Development
- Seminars and workshops



- The DSD and DPD, along with other Community legislation was strengthened
- A new system to register chemicals (REACH) was introduced with provisions for controls on the use of the more hazardous chemicals through restriction and authorisation of use
- The Globally Harmonised System (GHS) for the classification, labelling and Packaging of Substances and Mixtures was implemented in Europe as the CLP Regulation



- Almost 30 years later, CHCS is still providing essential training to members via a Modular Training Programme
- Produces a Newsletter and wealth of information on the website
- Safety data sheet guide
- Promoting competency in the chemical industry
- Career development
- Free membership to Students/graduates



## Categories

- Chemical manufacturers
- Consultants
- Chemical Distributors
- Trade Associations
- Range of members within different sectors of the chemical industry e.g. mining, food and fragrance suppliers
- Students



## Why join as a Student / Graduate Member

- ❖ Access to webinars
- ❖ Access to extensive regulatory web pages, presentations, papers, newsletters and resources
- ❖ Networking opportunities with CHCS members
- ❖ Access to specialist sub-groups

## What can you expect to do

- Helping organisation to comply with chemical regulation including regulatory scanning and monitoring
- Hazard communication
  - Label specification
  - Safety data sheets
  - enquiries
- Supporting product development

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## Day to day activities of a chemical hazards communication specialist

- Ensure products comply with local and/or global regulations
- Collecting, collating and evaluating scientific data
- Preparing dossiers for regulatory approval
- Preparing labels, safety data sheets and other customer focused documents
- Advising other departments on regulatory requirements, from R&D through to production
- Providing strategic advice to management on developments in chemical hazards regulations
- Liaising with customers to resolve questions and issues

## Where do chemical hazards communication professionals work?

- Chemicals
- Oil and Gas
- Pharmaceuticals
- Cosmetics and Toiletries
- Cleaning sectors
- Food
- Manufacturing and Engineering
- Transport and Logistics
- Consultancies
- Government agencies

# Qualifications and skills

## Qualifications:

- Typically a BSc in Chemistry, Biomedical Science, Environmental Science or a related discipline
- Some more specialist roles may require higher qualifications, e.g. MSc in Toxicology
- Some organisations may operate in house training schemes

## Additional skills needed:

- Good oral and written communication skills
- Organisational and project management skills
- Ability to keep up to date on current regulations
- Critical thinking and data analysis skills
- Attention to detail

# Routes into Chemical Hazard Communication Careers

- Graduate entry (some larger chemical companies and consultancy companies)
- More typically people move into chemical hazards communication after a couple of years experience in R&D, Quality Control, etc.

## Typical job titles:

Regulatory specialist/Compliance specialist

Regulatory manager

Product Stewardship manager

Director of regulatory affairs

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## Salary expectations

- Graduate starting salaries in the region of 23-25K
- 30-40K experienced professionals