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CHEMSAFETY PRESENTS

# HAZARDOUS SUBSTANCE REGULATIONS

## FOR OCCUPATIONAL HYGIENE PRACTITIONERS

# Outline

- INTRODUCTION
- REGIME
- YOU'RE IN CHARGE – YOUR GAME YOUR RULES
- REGULATIONS
- SCENARIOS & IDENTIFYING HAZARDOUS SUBSTANCES
- CERTIFICATION
- BASE CONTROLS & TRAINING
- CLASS BY CLASS
- SPECIAL CASES
- RISK MANAGEMENT, PPE & WORKPLACE EXPOSURE

# Introduction

- What do you see out there?
- Opening questions …

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# Regime

| HSWA - WorkSafe | HSNO - EPA |
| --- | --- |
| Hazardous Substances Regulations | EPA Notices |
| Safe Work Instruments, Guidelines | Approvals, Group Standards |
| Cover all hazardous substances in the workplace | Cover supplier duties; hazardous substances not in the workplace and ecotoxic substances |

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# Who put you in charge?

What rules / controls / precautions would you put in place for the management of hazardous substances?

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# HSW(HS) Regulations

1. Application
2. Labelling, signage, safety data sheets and packaging
3. General duties relating to risk management
4. Certified Handlers and supervision and training of workers
5. Emergency Management
6. Compliance Certification
7. Controlled substance licences
8. Controls applying to all Class 1 to 5 substances
9. Class 1 Substances
10. Class 2, 3 and 4 Substances
11. Controls relating to adverse effects of unintended ignition of Class 2 and 3.1 substances
12. Class 5 Substances
13. Class 6 and 8 substances
14. Fumigants
15. Gases under pressure
16. Tank Wagons and transportable containers
17. Stationary container systems
18. Laboratories
19. Tracking hazardous substances

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# Scenarios

- *Develop 2 -3 scenarios of situations we shall use as examples*

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# Identifying Hazardous Substances

- What are substances?
- What are hazardous substances?
- Resources for identifying them

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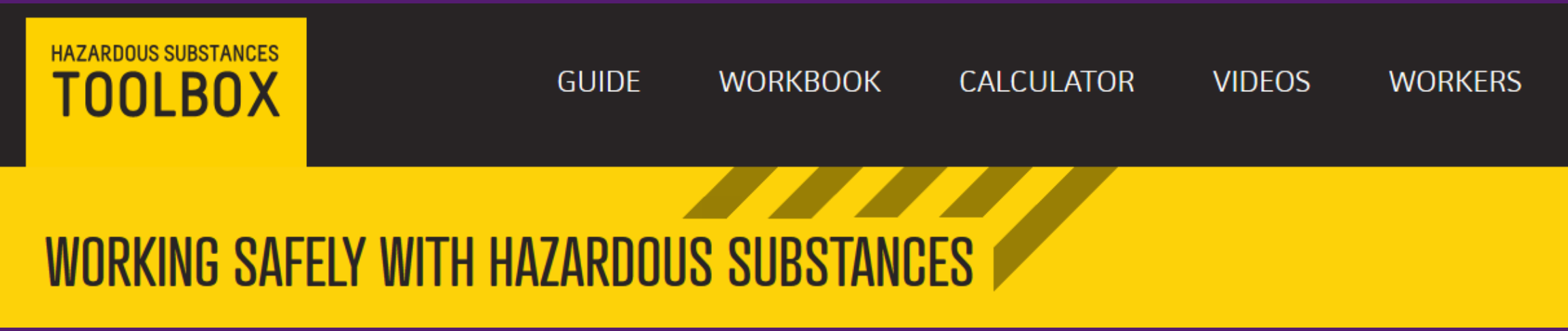
# Toolbox

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| NAME OF PRODUCT AND/OR UN NUMBER | APPROVAL NUMBER AND GROUP STANDARD NAME (If applicable) | HAZARD CLASSIFICATION, UN CLASS AND PACKING GROUP | CURRENT SDS AVAILABLE? | SPECIFIC STORAGE AND SEGREGATION REQUIREMENTS* | CONTAINER SIZE | OPEN OR CLOSED CONTAINER? | GAS, LIQUID OR SOLID | LOCATION (eg Flammable Goods Cabinet, Storage Room 02) | MAXIMUM LIKELY AMOUNT |
|---|---|---|---|---|---|---|---|---|---|
| Required or useful | Useful for Calculator | Useful for Calculator | Required information | Required information | Useful for Calculator | Useful for Calculator | Useful for Calculator | Required information | Required information |
| **Acetone** | HSR001070 | 3.1B, 6.1E, 6.3B, 6.4A<br>3 II | Yes | Store away from sources of heat and ignition<br>Keep away from bases, oxidising agents, reducing agents, reacts violently with phosphorous oxide | 4 x 10 L<br>1 x 5 L | Closed | Liquid | Flammable goods cabinet | 45 L |
| **Polyurethane** | HSR002662 – Surface coatings and colourants (Flammable) Group Standard 2006 | 3.1C, 6.1E, 6.3A, 6.4A, 6.5A, 6.5B, 6.8B, 6.9A, 9.1D<br>3 III | Yes | Incompatible with oxidising agents and flammable gases<br>Store in approved flammable liquid storage area | 10 L | Closed | Liquid | Flammable goods cabinet | 10 L |
| **Polyurethane thinner** | HSR002650 – Solvents (Flammable) Group Standard 2006 | 3.1B, 6.1E, 6.3A, 6.4A, 6.8B, 6.9B,9.1D, 9.3C<br>3 III | Yes | Store out of direct sunlight<br>Incompatible with oxidising agents and flammable gases | 10 L | Closed | Liquid | Flammable goods cabinet | 6 L |
| **LPG** | HSR001009 | 2.1.1A<br>2.1 (no packing group) | Yes | Incompatible with oxidising agents, flammable liquids and acids<br>Keep away from heat and ignition sources<br>Hazardous area<br>Location compliance certificate required | 45 kg | Closed | Gas | Locked LPG cage | 180 kg |

**TABLE 1:** Example inventory

# Certification

- Certified Handlers
  - Class 6.1A & 6.1B
- Location Compliance Certification
  - Classes 2, 3 ,4, 5, 6 & 8
  - Thresholds depending on class
- Stationary Container Certification
  - Thresholds depending on class & type

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# Base controls

- Labelling
- Packaging
- Signage
- Emergency Management

# Worker Training

- Information, training and instruction for

every worker who uses, handles, manufactures, or stores a hazardous substance (including hazardous waste) is, before the worker is allowed to carry out or supervise work involving those substances

- Practical experience
- Records of training

# Training Records

- *What form might these take?*

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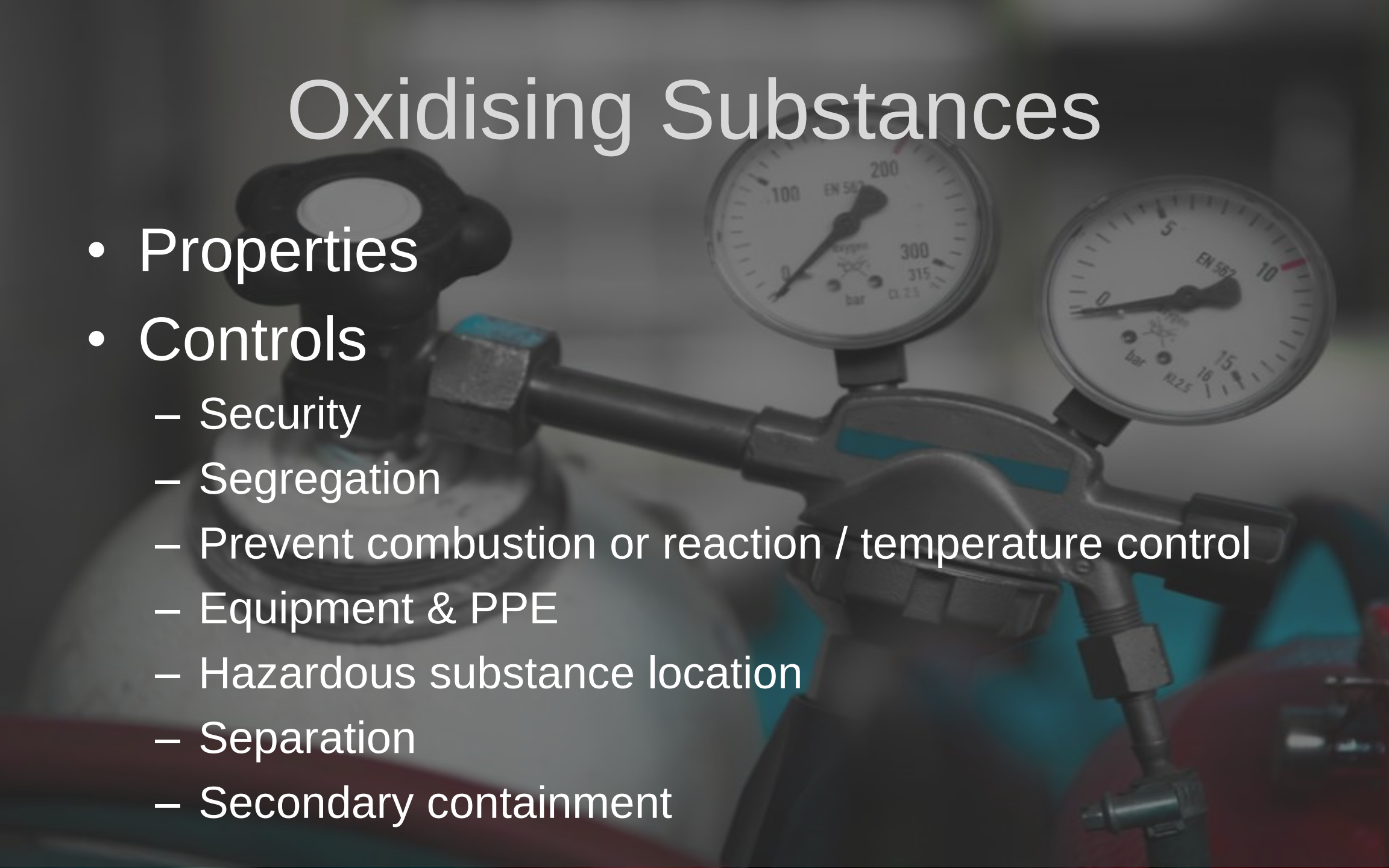
# Flammables

- Properties
- Controls
  - Security
  - Segregation
  - Prevent ignition / hazardous areas
  - Hazardous substance location
  - Separation & location types
  - Secondary containment

# Oxidising Substances



- Properties
- Controls
  - Security
  - Segregation
  - Prevent combustion or reaction / temperature control
  - Equipment & PPE
  - Hazardous substance location
  - Separation
  - Secondary containment

# Toxic & Corrosives

- Properties
- Controls
  - Security
  - Segregation
  - Prevent exposure
  - Equipment & PPE
  - Hazardous substance location
  - Separation & location types
  - Secondary containment

# But what about…

- Class 9 ecotoxics
- Laboratories
- Fumigants
- Cylinders
- Tanks

# Risk Management

**3.2 Managing risks associated with hazardous substances**

(1) A PCBU must manage risks to health and safety associated with using, handling, manufacturing, or storing a hazardous substance or a group of hazardous substances with the same hazardous properties at a workplace.

(2) In managing risks, the PCBU must have regard to the following:

- (a) the quantity of the hazardous substances used, handled, manufactured, or stored:
- (b) the health and physico-chemical hazards associated with the hazardous substance:
- (c) any potential chemical or physical reaction between the hazardous substance and another substance, including a substance that may be generated by the reaction:
- (d) any ignition sources (for example, flames, heat, or sparks) that might ignite the hazardous substance:
- (e) any structure, plant, or system of work that is used in the use, handling, manufacture, or storage of the hazardous substance:
- (f) the nature of the work to be carried out by workers with the hazardous substance, including—
  - (i) the workers' risks of exposure to the substance; and
  - (ii) the likely degree of exposure:
- (g) any prescribed exposure standard for the hazardous substance:
- (h) any restricted entry interval for the substance, if one has been set.

# PPE & Worker Exposure

- Exposure standards

**13.18 Duty of PCBU to ensure prescribed exposure standards for class 6 substances not exceeded**

(1) A PCBU with management or control of a workplace must ensure that a person at the workplace is not exposed to a concentration of a class 6 substance that exceeds the prescribed exposure standard (if any) for that substance in accordance with regulation 29 of the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

- PPE

**13.8 Use of personal protective equipment when working with class 6 or 8 substances**

(1) For the purposes of regulations 15 to 20 of the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, personal protective equipment is to be used to minimise risks to the health and safety of workers when carrying out work using a class 6.1A, 6.1B, 6.1C, 6.1D, 6.3A, 6.5A, 6.5B, 6.6A, 6.6B, 6.7A, 6.7B, 6.8A, 6.8B, 6.8C, 6.9A, 6.9B, 8.2A, 8.2B, 8.2C, or 8.3A substance.

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LEADERS IN CHEMICAL RISK MANAGEMENT

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# THANK YOU

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Chemsafety provides a range of services to manage your chemical processes, including industrial analytical chemistry and safety data sheet preparation.

## CHEMICAL CONSULTANCY

Chemsafety is able to provide full asbestos management consultancy services. Our team of Consultants can provide you with full commercial surveys, residential audits, clearance monitoring, bulk sample testing and risk management services, nationwide.

## ASBESTOS

Much of the management of Hazardous Substances now falls under the rule of the HSNO (Hazardous Substances and New Organisms) Act. Chemsafety works with you to ensure you comply with the minimum HSNO requirements, and move on towards best practice.

## HAZARDOUS SUBSTANCES

Hazards generated in the workplace and elsewhere do not usually stay contained in one place. Chemsafety will help you identify and quantify the issues involved, and assist with mitigation solutions or consent compliance.

## ENVIRONMENTAL

Ensuring that your employees go home each night safe and well is your highest priority. Chemsafety's experienced Industrial Hygienists work with you to identify, quantify and mitigate health hazards in your workplace.

## INDUSTRIAL HYGIENE