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Understanding CLP

[Classification, Labelling and Packaging (CLP) Regulation]

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The Classification, Labelling and Packaging (CLP) Regulation ((EC) No 1272/2008)

⇨ is **based** on the United Nations "**G**lobally **H**armonised **S**ystem" (**GHS**)

⇨ its **purpose** is to ensure a high level of protection of health and the environment, as well as the free movement of substances, mixtures and articles.

- ⇨ One of the main aims of CLP **is to determine whether a substance or mixture displays properties that lead to a hazardous classification.**
- ⇨ In this context, **classification** is the starting point for hazard communication.

When relevant information (e.g. toxicological data) on a substance or mixture meets the classification criteria in CLP,

⇨ the hazards of a substance or mixture are identified by assigning a certain **hazard class** and **category**.

⇨ The **hazard classes** in CLP cover **physica**l, **health**, **environ**-**mental and additional hazards.**

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Once a substance or mixture is classified,

- ⇨ **the identified hazards must be communicated** to other actors in the supply chain, including consumers.
- ⇨ **Hazard labelling** allows the hazard classification, with **labels** and **safety data sheets**,
  - ☞ **to be communicated** to the user of a substance or mixture,
  - ☞ **to alert them** about **the presence of a hazard** and **the need to manage the associated risks.**

CLP **sets detailed criteria** for the **labelling elements**:

- ⇨ **pictograms**,
- ⇨ **signal words**
- ⇨ **standard statements for hazard**,
- ⇨ **prevention**, **storage** and disposal, for every hazard class and category.

CLP also sets

- ⇨ general **packaging standards** to ensure the safe supply of hazardous substances and mixtures.

CLP is also **the basis for many legislative provisions** on the risk management of chemicals.

CLP Pictograms

A hazard pictogram:

- ⇨ is **an image on a label**
  - ☞ that includes a **warning symbol** and **specific colours**
  - ☞ intended to provide information about the damage a particular substance or mixture can cause to our health or the environment

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Physical hazards
17 classes
40 categories


SGH01


SGH02


SGH03


SGH04


SGH05

Health hazards
10 classes
41 categories


SGH06


SGH07


SGH08


SGH05

Environmental hazards
2 classes
5 categories


SGH09

Gas under pressure
Symbol: Gas cylinder

⇨**What does it mean?**

- ☞ Contains gas under pressure; may explode if heated.
- ☞ Contains refrigerated gas; may cause cryo-genic burns or injury.

⇨ **Examples of where we can find it**

Gas containers

⇨ **Examples of precautionary statements**

- ☞ Protect from sunlight
- ☞ Wear cold insulating gloves/face shield/eye protection.
- ☞ Get immediate medical advice/attention.

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Explosive

Symbol: Exploding bomb

⇨ **What does it mean?**

- ☞ Unstable explosive
- ☞ Explosive; mass explosion hazard
- ☞ Explosive; severe projection hazard
- ☞ Explosive; fire, blast or projection hazard
- ☞ May mass explode in fire

⇨ **Examples of where we can find it**

Fireworks, ammunition

⇨**Examples of precautionary statements**

- ☞ Obtain special instructions before use
- ☞ Do not handle until all safety precautions have been read and understood
- ☞ Keep away from heat/sparks/open flames/hot surfaces. – No smoking
- ☞ Wear protective gloves/protective clothing/eye protection/face protection
- ☞ Use personal protective equipment as required
- ☞ Explosion risk in case of fire

Oxidising
Symbol: Flame over circle

⇨**What does it mean?**

- ☞ May cause or intensify fire; oxidiser.
- ☞ May cause fire or explosion; strong oxidiser.

⇨ **Examples of where we can find it**

- ☞ Bleach, oxygen for medical purposes

⇨**Examples of precautionary statements**

- ☞ Keep away from heat/sparks/open flames/hot surfaces. – No smoking
- ☞ Wear protective gloves/protective clothing/eye protection/face protection.
- ☞ Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

Flammable
Symbol: Flame

⇨ **What does it mean?**

- ☞ Extremely flammable gas
- ☞ Flammable gas
- ☞ Extremely flammable aerosol
- ☞ Flammable aerosol
- ☞ Highly flammable liquid and vapour
- ☞ Flammable liquid and vapour
- ☞ Flammable solid

⇨ **Examples of where we can find it**

Lamp oil, petrol, nail polish remover

⇨ **Examples of precautionary statements**

- ☞ Do not spray on an open flame or other ignition source.
- ☞ Keep away from heat/sparks/open flames/hot surfaces – No smoking
- ☞ Keep container tightly closed
- ☞ Keep cool
- ☞ Protect from sunlight

Corrosive
Symbol: Corrosion

⇨ **What does it mean?**

- ☞ May be corrosive to metals
- ☞ Causes severe skin burns and eye damage

⇨ **Examples of where we can find it**

- ☞ Drain cleaners, acetic acid, hydrochloric acid, ammoniac

⇨ **Examples of precautionary statements**

- ☞ Do not breathe dust/fume/gas/mist/vapours/spray
- ☞ Wash…thoroughly after handling
- ☞ Wear protective gloves/protective clothing/eye protection/face protection
- ☞ Store locked up
- ☞ Keep only in original container

Health hazard/Hazardous to the ozone layer
Symbol: Exclamation Mark

⇨ **What does it mean?**

- ☞ May cause respiratory irritation
- ☞ May cause drowsiness or dizziness
- ☞ May cause an allergic skin reaction
- ☞ Causes serious eye irritation
- ☞ Causes skin irritation
- ☞ Harmful if swallowed
- ☞ Harmful in contact with skin
- ☞ Harmful if inhaled
- ☞ Harms public health and the environment by destroying ozone in the upper atmosphere

⇨ **Examples of where we can find it**

Washing detergents, toilet cleaner, coolant fluid

⇨ **Examples of precautionary statements**

- ☞ Avoid breathing dust/fume/gas/mist/vapours/spray
- ☞ Use only outdoors or in a well-ventilated area
- ☞ If inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing
- ☞ If swallowed: call a POISON CENTER or a doctor/physician if you feel unwell
- ☞ Wear protective gloves/protective clothing/eye protection/face protection.
- ☞ If on skin: wash with plenty of soap and water
- ☞ If in eyes: rinse cautiously with water for several minutes. Remove contact lens, if present and easy to do. Continue rinsing.
- ☞ Do not eat, drink or smoke when using this product.

Acute toxicity Symbol: Skulls and Crossbones

⇨ **What does it mean?**
- ☞ Fatal if swallowed
- ☞ Fatal in contact with skin
- ☞ Fatal if inhaled
- ☞ Toxic: if swallowed
- ☞ Toxic in contact with skin
- ☞ Toxic if inhaled

⇨ **Examples of where we can find it**

Pesticide, biocide, methanol

⇨ **Examples of precautionary statements**
- ☞ Wash... thoroughly after handling.
- ☞ Do not eat, drink or smoke when using this product.
- ☞ If swallowed: immediately call a POISON CENTER or a doctor/physician
- ☞ Rinse mouth
- ☞ Store in a closed container
- ☞ Do not get in eyes, on skin, or on clothing.
- ☞ Wear protective gloves/protective clothing/eye protection/face protection.
- ☞ If on skin: gently wash with plenty of soap and water
- ☞ Remove/take off immediately all contaminated clothing.
- ☞ Wash contaminated clothing before reuse.
- ☞ Do not breathe dust/fume/gas/mist/vapours/spray.
- ☞ Use only outdoors or in a well-ventilated area
- ☞ Wear respiratory protection
- ☞ If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- ☞ Store locked up

Serious health hazard
Symbol: Health hazard

⇨ **What does it mean?**
- ☞ May be fatal if swallowed and enters airways
- ☞ Causes damage to organs
- ☞ May cause damage to organs
- ☞ May damage fertility or the unborn child
- ☞ Suspected of damaging fertility or the unborn child
- ☞ May cause cancer
- ☞ Suspected of causing cancer
- ☞ May cause genetic defects
- ☞ Suspected of causing genetic defects
- ☞ May cause allergy or asthma symptoms or breathing difficulties if inhaled

⇨ **Examples of where we can find it?**

Turpentine, petrol, lamp oil

⇨ **Examples of precautionary statements**
- ☞ If swallowed: immediately call a POISON CENTER or a doctor/physician
- ☞ Do NOT induce vomiting
- ☞ Store locked up
- ☞ Do not breathe dust/fume/gas/mist/vapours/spray.
- ☞ Wash thoroughly after handling.
- ☞ Do not eat, drink or smoke when using this product.
- ☞ Get medical advice/attention if you feel unwell
- ☞ If exposed: Call a POISON CENTER or doctor/physician
- ☞ Obtain special instructions before use
- ☞ Do not handle until all safety precautions have been read and understood
- ☞ Use personal protective equipment as required
- ☞ If exposed or concerned: Get medical advice/attention
- ☞ Avoid breathing dust/fume/gas/mist/vapours/spray
- ☞ In case of inadequate ventilation wear respiratory protection
- ☞ If inhaled: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing

Hazardous to the environment
Symbol: Environment

⇨ **What does it mean?**

- ☞ Very toxic to aquatic life with long lasting effects
- ☞ Toxic to aquatic life with long lasting effects

⇨ **Examples of where we can find it?**

Pesticides, biocides, petrol, turpentine

⇨ **Examples of precautionary statements**

- ☞ Avoid release to the environment
- ☞ Collect spillage

Hazard & Precautionary statements

⇨ Hazard (**H**) and Precautionary (**P**) statements represent:

- ☞ **standard phrases** used to **describe** the **hazards** of hazardous substances/mixtures
- ☞ the recommended **measures** to be taken when using/disposing hazardous substances/mixtures.

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⇨ **H-statements** (62)

☞ **Describe** physical, health and environmental hazards

☞ Are **codified** by using one letter, « **H** », and 3 digits. The first of which indicates the primary nature of the hazard:

- H**2**XY for **physical** hazards (200-299)
- H**3**XY for **health** hazards (300-399)
- H**4**XY for **environmental** hazards (400-499)

https://www.msds-europe.com/wp-content/uploads/2018/06/H-EUH-statements-en.pdf

First digit			Second digit		
	2	Physical hazards		0	Ingestion
				1	Dermal contact
	3	Health hazards		2	Eyes
				3	Inhalation
				4	genetic abnormalities
	4	Environmental hazards		5	carcinogenic
				6	mutagenic
				7	target organs

H317: may cause an allergic skin reaction.
H341: may cause cancer

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⇨ **P-statements** (140)

- ☞ Precautionary statements are also **assigned a unique code**,
- ☞ Consisting of one letter, "**P**", and three digits, the first of which refers to one of the 5 types of statements
- ☞ **Describe** the recommended **measures** relating to:
  - to storage
  - to manipulation
  - to disposal
  - the necessary provisions in the event of a leak or accident
  - Designated by a unique alphanumeric code consisting of the letter P and 3 digits

⇨ P-statements

General	100-199
Prevention	200-299
Response	399-399
Storage	400-499
Disposal	500-599

https://www.msds-europe.com/wp-content/uploads/2018/06/P-statements-en.pdf

⇨ Signal words

- ☞ The CLP Regulation also introduces two signal words: '**Danger**' and '**Warning**'.

- ☞ If the chemical
  - ⅄ has **a more severe hazard**, the label includes the signal word "**Danger**"
  - ⅄ in case of less severe hazards, the signal word is "**Warning**"

Concentrated HCl (> 25%)

DANGER

H272: may cause or aggravate a fire (oxidizer)
H314: causes skin burns and eye damage
H331: Toxic if inhaled

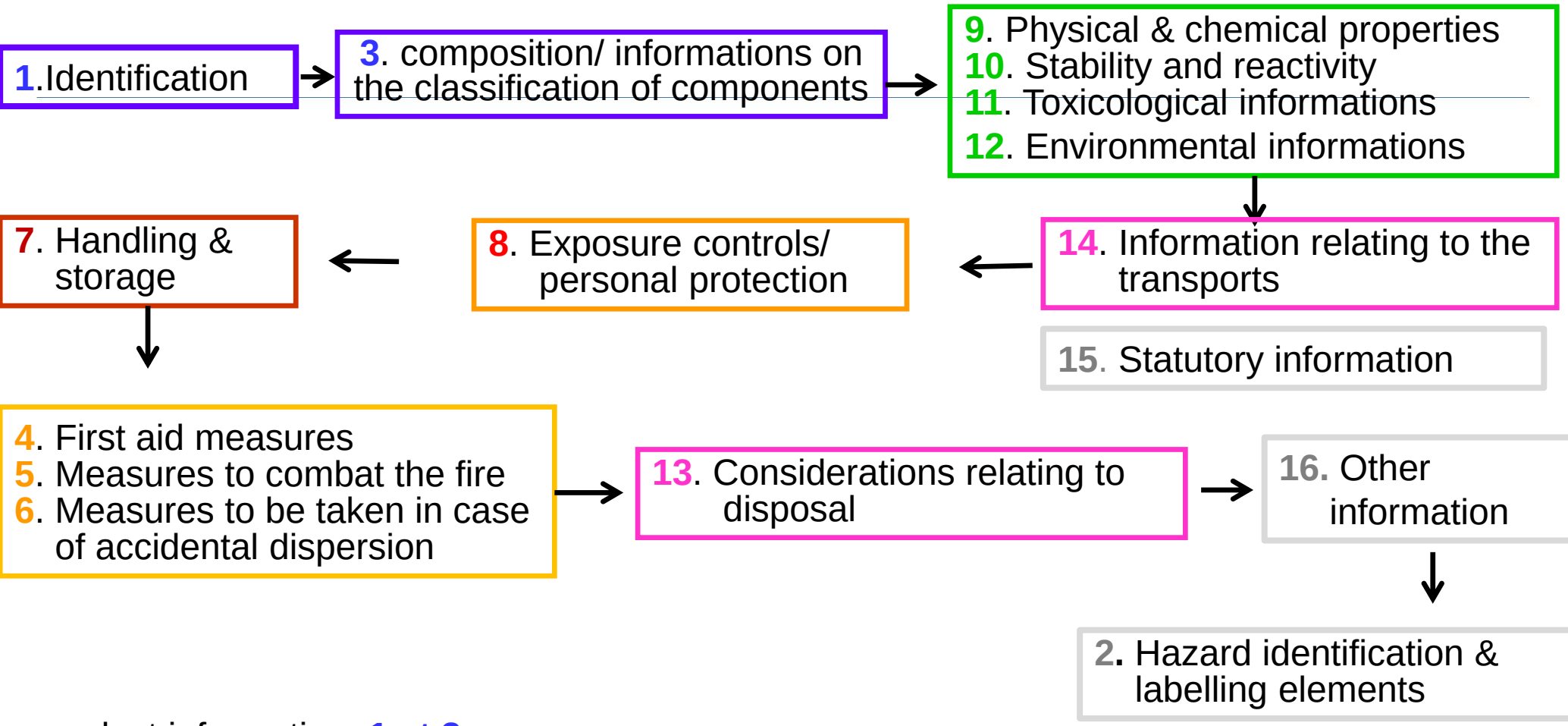
P101: If medical advice is needed, have product container or label at hand.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314: Get medical advice/attention if you feel unwell.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.

N° CAS : 7647-6-01 N° CE: 231-595-7 (> 25%)

Risk communication: Safety Data Sheet (SDS)

- **Major issue:** safety communication
- The SDS, the **second means of communication** after the label, allows:
  - to **analyse and evaluate** the chemical risk
  - **inform** staff **about risks and hazards**
  - to **train personnel** in proper and safe use;
  - to **prepare workstation** manuals.
- Second issue: topical issue
  - **Updating the SDS** under REACH and CLP

The 16 regulatory headings of an MSDS have 48 subheadings



- product information: **1 et 3**
- Potential properties and hazards: **9-10-11-12**
- Prevention, exposure, protection**:** **7- 8**
- Advice on material methods that can be used in a normal situation**:** **7 + 13 + 14**
- Advice on material methods that can be used in an accident situation**:** **4 + 5 + 6**
- Summary of the main hazards**:** **2 + 15 + 16**