



GHS/CLP

Implementation in The Linde Group

Basic information

LeadIng.



THE LINDE GROUP

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GHS Overview (I)

- The UN-developed system „GHS“ stands for „Globally Harmonized System of Classification and Labelling of Chemicals“.
- With the GHS, globally harmonized criteria have been created for the classification and labelling of chemicals.
- The GHS has been developed to ensure internationally comparable high standards for health and consumer protection, occupational health and safety, and environmental protection.

GHS regulates ...

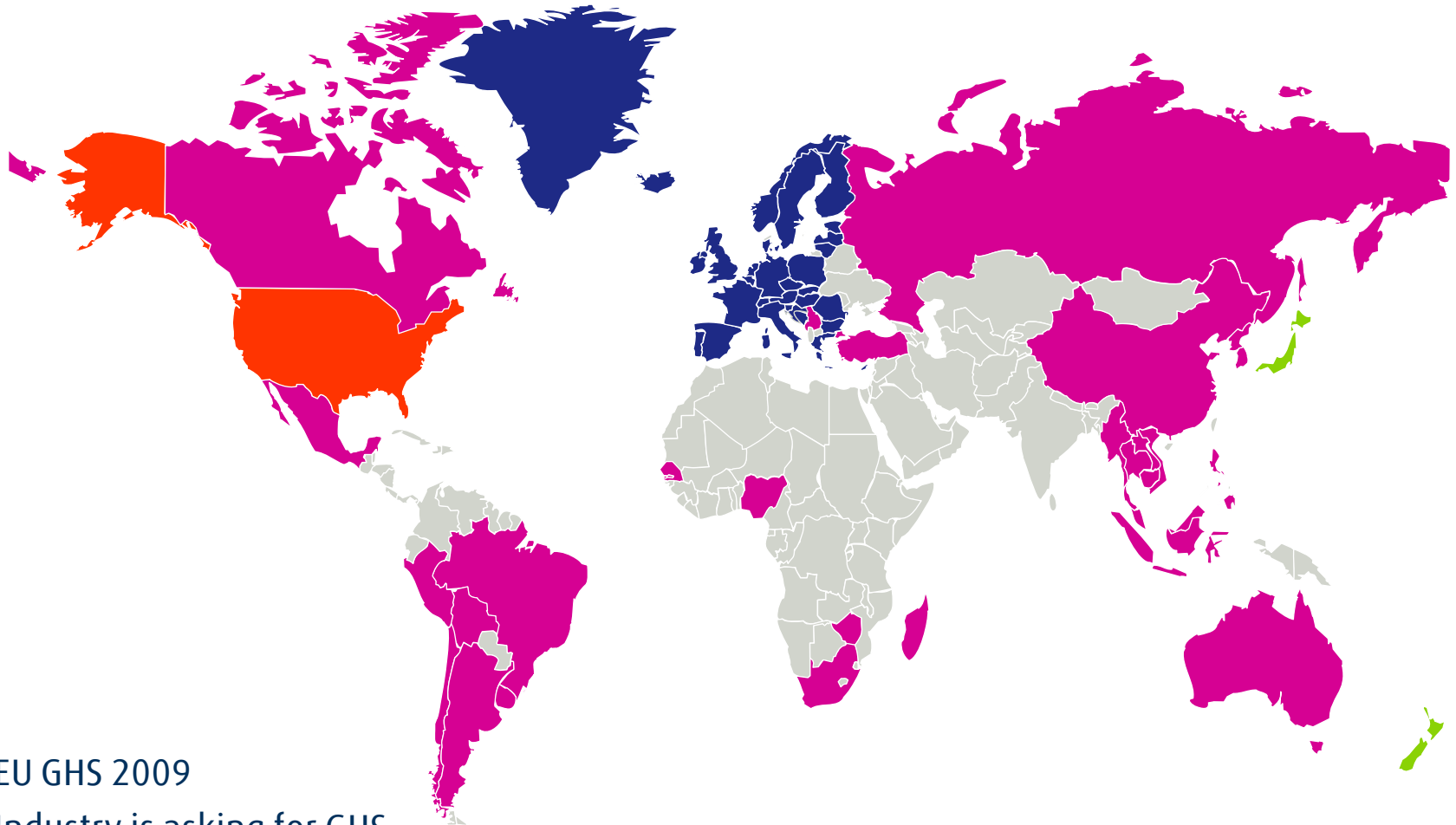
- ☞ criteria for the classification of physical, toxicological, and environmental relevant properties
- ☞ classification and labelling
- ☞ harmonised hazard communication (e.g. harmonised label statements and harmonized safety data sheets)

... of chemicals.

GHS Overview (II)

- The GHS affects manufacturers, suppliers, transporters and users of chemicals
- The global implementation of the GHS affects more than 60 countries. The EU version came into force on 20th January 2009 under (EC) No 1272/2008 called “CLP” (Classification, Labelling and Packaging of Substances and Mixtures)
- In Europe there are numerous interconnections between CLP and REACH.
- The implementation of the GHS is progressing at different places around the world. In many Asian countries, for example, GHS has already been introduced.

GHS Implementation in more than 60 Countries



■ EU GHS 2009

■ Industry is asking for GHS

■ 1st GHS Implemented

■ GHS Implementation is planned or has started (see also http://www.unece.org/trans/danger/publi/ghs/implementation_e.html)

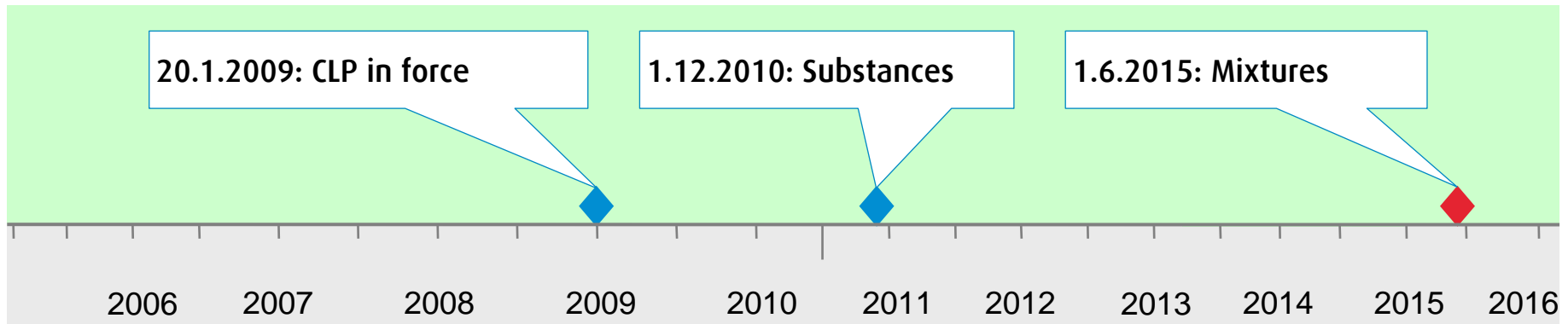
What must be done?

- The implementation of CLP has significant effects on all aspects of the chemical industry.
- All products have to comply with the requirements of CLP.
- Within the implementation phase,
 - ☞ Labelling shall be adapted to the new requirements.
 - ☞ All products must be reclassified
 - ☞ Safety Data Sheets shall be changed correspondingly.

The Timeline for CLP.

- The implementation timeline provides the following critical milestones:

- ☞ On January 20th, 2009, CLP entered into force
- ☞ By December 1, 2010, all pure substances have been classified and labelled in accordance with CLP criteria
- ☞ By June 1, 2015, all mixtures shall be classified and labelled in accordance with CLP criteria








What essential changes will CLP entail?

- CLP introduces a globally harmonized criteria for the classification of substances.
- CLP establishes globally harmonized criteria for hazard communication. In the overview, this relates to the introduction of new or modified:
 - hazard classes
 - hazard categories
 - hazard pictograms
 - signal words
 - hazard statements
 - precautionary statements
- CLP offers the opportunity to bring product safety to a high level all over the world.

CLP will improve measures for protecting human health and the environment on a global scale

New pictograms – the most peculiar CLP feature

Physical Hazards				
				
Health Hazards				Env. hazards
				

New labelling elements

Signal word: Danger or Warning

The signal word on the label gives information about the relative hazard level of a substance or mixture and alerts the user to a potential hazard.

Danger

Warning

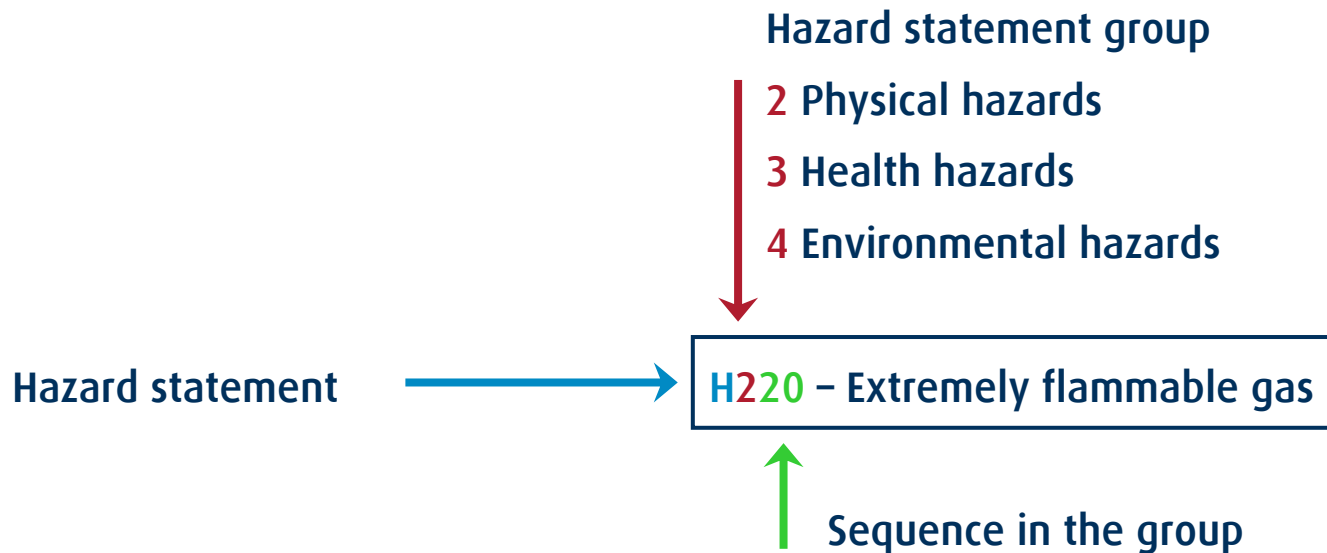
Hazard pictogram

- ☞ Square set on a point
 - ☞ Red border
 - ☞ White background
 - ☞ Black symbols
-
- ☞ Transport Hazard labels not affected
 - ☞ Red, Green, Yellow, etc. diamonds will remain, no need to duplicate



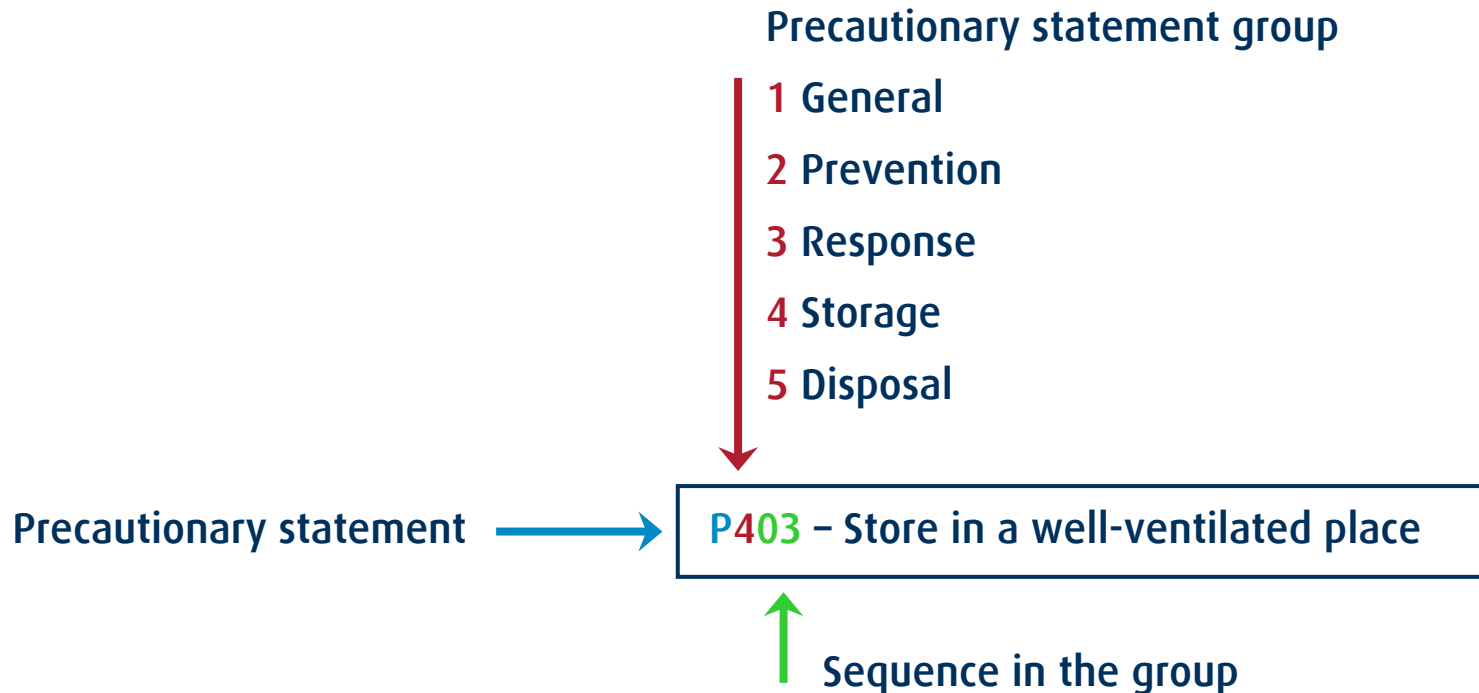
Hazard statements, definition and coding

A hazard statement is a **phrase**, assigned to a **hazard class** and **category** that describes the nature / intrinsic property of a hazardous product as well as the **hazard level**.



Precautionary statements, definition and coding

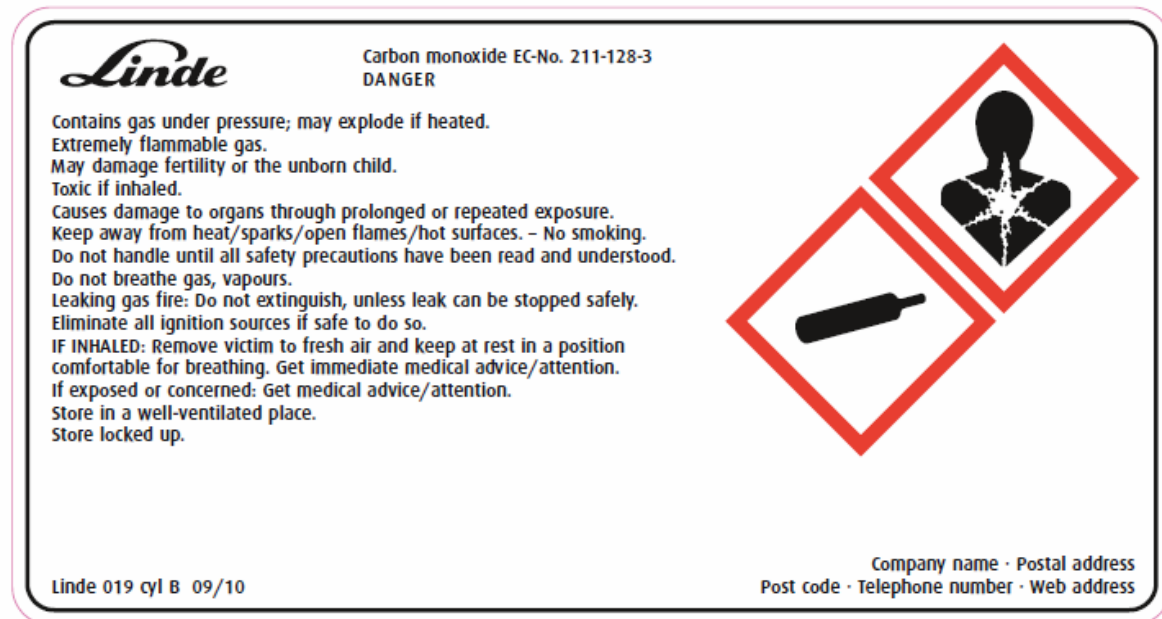
A precautionary statement is a **phrase** (and/or pictogram) that describes the **recommended measures** that should be taken to prevent / minimize **adverse effects** resulting from **exposure** to a hazardous product.



Labels have been adapted to the new regulation. Example: Carbon Monoxide



- ☞ Pictograms
- ☞ Symbols
- ☞ Signal Words
- ☞ Hazard Statements
- ☞ Precautionary Statements
- ☞ Additional Information
- ☞ Quantity if not engraved on cylinder



Linde Carbon monoxide EC-No. 211-128-3
DANGER

Contains gas under pressure; may explode if heated.
Extremely flammable gas.
May damage fertility or the unborn child.
Toxic if inhaled.
Causes damage to organs through prolonged or repeated exposure.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Do not handle until all safety precautions have been read and understood.
Do not breathe gas, vapours.
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
Eliminate all ignition sources if safe to do so.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.
If exposed or concerned: Get medical advice/attention.
Store in a well-ventilated place.
Store locked up.

Linde 019 cyl B 09/10

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