

# Overview of UN and OECD legal instruments & recommendations:

*Addressing the storage, handling and transport of AN and AN-based fertilizers and related accident prevention, preparedness and response*

*Rosa Garcia Couto, Scientific Affairs Officer*

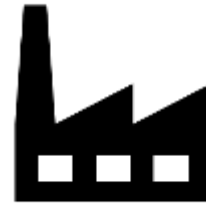
*Franziska Hirsch, Secretary of the Industrial Accidents Convention*



# Chemicals' safety through their lifecycle

Many instruments/recommendations apply throughout the lifecycle of chemicals (incl. ammonium nitrate)

- Manufacturing
- Classification, packaging & labelling
- Transport
- Storage (incl. intermediate storage)
- Inspections
- Prevention and mitigation, incl. land-use planning
- Preparedness, incl. contingency planning
- Response



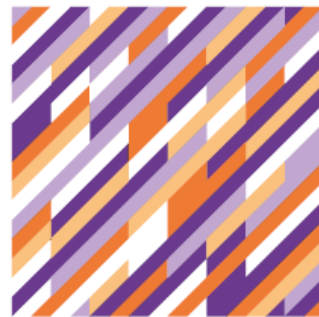
# Chemicals' safety: hazard characterization and communication

- Hazard characterization (testing and classification) is the first step to identify appropriate safety measures
- Once identified, the hazards need to be communicated in an effective way through the lifecycle of the chemical to all those who may be exposed to them (e.g: workers, emergency responders, end-users).
- Workers and emergency responders shall be trained to understand the hazard communication elements addressed to them (workplace labelling, safety data sheets, transport placards/labels...)
- Classification and labelling provisions have been harmonized and are implemented and used at worldwide level

# Worldwide harmonized instruments addressing classification and labelling (including transport)

- Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
  - Criteria for classification and hazard communication (label elements and Safety Data Sheets)
- UN Recommendations on the Transport of Dangerous Goods. Model Regulations
  - Provisions for the safe transport of dangerous goods by all modes
- UN Manual of Tests and Criteria
  - Test methods for classification in accordance with the GHS and the UN Model Regulations

# Worldwide harmonized instruments addressing classification and labelling (including transport)



Manual of Tests and Criteria  
Seventh revised edition



- Physical hazards in the GHS are assessed on the basis of the results of the tests in the UN Manual of Tests and Criteria
- Ammonium nitrate and ammonium nitrate-based fertilizers are classified on the basis of their composition and experience and knowledge of their hazardous behaviour (according to their explosive, oxidizing and able to undergo self-sustaining exothermic decomposition properties)
- The test results determine classification in accordance with GHS and transport of dangerous goods regulations

# Worldwide harmonized instruments addressing classification and labelling (including transport)

Hazard classification in accordance with GHS and/or transport regulations trigger:

- transport conditions for each mode of transport as defined in the applicable modal instruments (e.g.: IMDG Code, ICAO Technical Instructions, ADR, RID, ADN...)
- Segregation provisions from other hazardous substances
- Storage provisions, including threshold storage limits (e.g. UNECE Industrial Accidents Convention)
- Pictograms, hazard and precautionary statements, labels, placards etc to be used throughout the lifecycle of the chemical for different purposes: workplace, transport, emergency response, consumer's protection, as appropriate)
- Information to be included in the Safety Data Sheet
- Need for specific training (e.g. emergency responders, workers)
- Need to follow specific available recommendations, guidance and good practices (e.g. IMO Recommendations on the Safe Transport of Dangerous Cargoes and Related activities in Port Areas (MSC.1/Circ.1216, 26 February 2007))

# Legal and policy instruments regulating industrial accident prevention, mitigation, preparedness and response

- **UNECE Convention on the Transboundary Effects of Industrial Accidents**
- **OECD legal and policy instruments**
- **ILO Conventions (No. 170, 174) and Recommendations**
- **EU Seveso-III Directive (2012/18/EU) on the control of major-accident hazards involving dangerous substances**
- **Union Civil Protection Mechanism**
- **WHO International Health Regulations and chemical events**
- **UNEP Flexible Framework for addressing chemical accident prevention and preparedness**
- **UNEP/OCHA Joint Environment Unit Flash Environmental Assessment Tool (FEAT)**
- **UNDRR Words into Action Guidelines / Implementation Guide on man-made/technological hazards**



**UNECE**

# UNECE Convention on the Transboundary Effects of Industrial Accidents

- Obligations apply to “hazardous activities” in which hazardous substances listed in Annex I are or may be present (incl. ammonium nitrate and AN mixtures when threshold quantities are met), which could cause a transboundary effect
- Fosters **transboundary cooperation** in industrial accident prevention, preparedness and response
- Supports **policy-making** and **industrial safety governance**
- Covers **Natech** (Natural-hazard triggered technological accidents)
- Promotes international cooperation for mutual assistance, research and development and exchange of information and technology
- **41 Parties in the UNECE region**
- **Legal instrument for risk reduction under Sendai Framework for Disaster Risk Reduction 2015-2030**

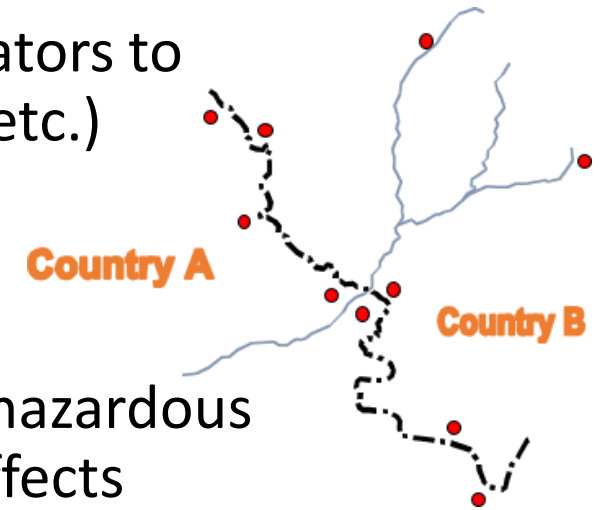


*“Initially developed for the European region ..., the approaches and experience [under the Industrial Accidents Convention] offer insights to countries pursuing Sendai Framework commitments in technological disaster risk management”*



# UNECE Convention on the Transboundary Effects of Industrial Accidents: Provisions

- **Prevention** policies and measures, incl. to induce action by operators to reduce risk (risk assessment, safety reports, audits, inspections, etc.)
- **Identification** of hazardous activities
- **Notification** / information-sharing with affected countries
- **Policies on siting** of new and significant modification to existing hazardous activities; **land-use planning**, taking account of transboundary effects
- **Preparedness:** On- and off-site contingency plans, harmonized or joint among concerned Parties
- Joint or coordinated **response** measures; Accident notification and **mutual assistance**
- **Public information and participation**



# UNECE Guidelines & Good Practices

- **Development of Guidelines, Good industry practices and checklists** through expert groups, reviewed and recommended for use by Parties and other countries
- Implementation support provided through **Assistance and Cooperation Programme** to support countries in Eastern and South-Eastern Europe, the Caucasus and Central Asia
- Online [information-repository on land-use planning and industrial safety](#)
- [Good practices submitted through national implementation reports](#)
- [Seminar on good practices in implementation \(hybrid, 3-4 February 2022\)](#)



# OECD Legal Instruments relating to Chemical Accidents: now being reviewed and consolidated

Recommendation concerning Chemical Accident Prevention, Preparedness and Response (2003) [OECD/LEGAL/0319](#)

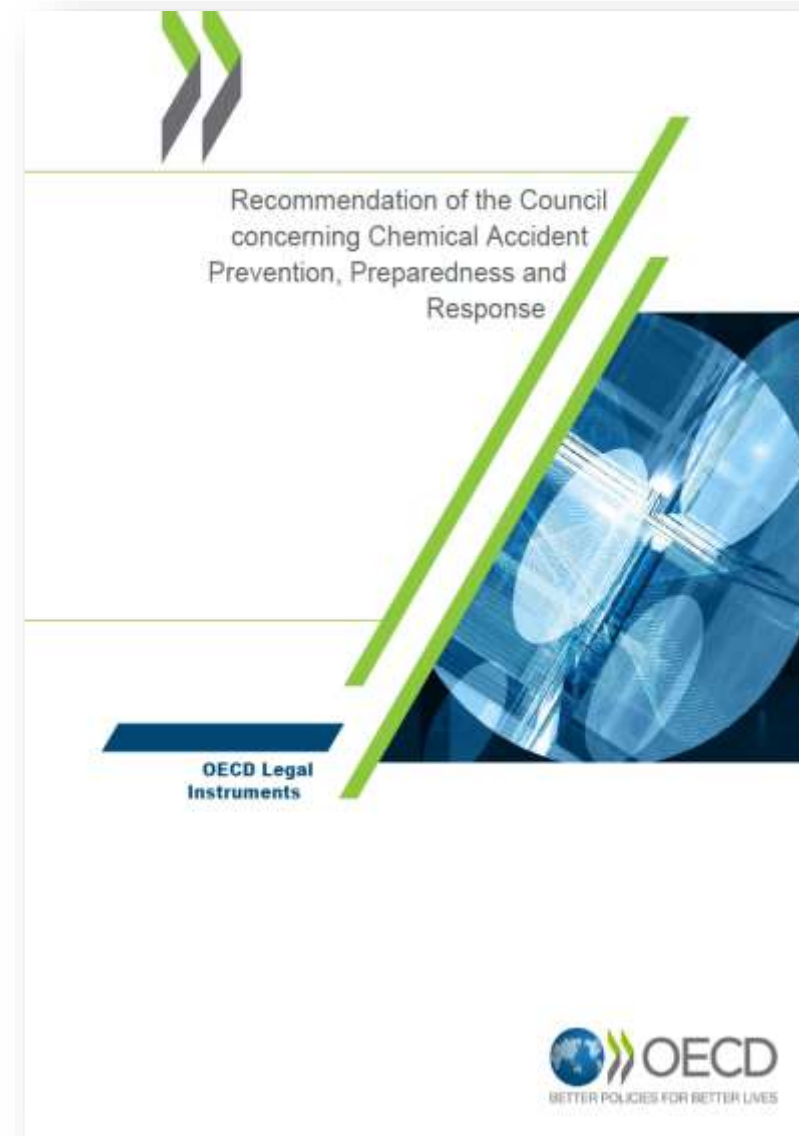
Decision-Recommendation concerning Provision of Information to the Public and Public Participation in Decision-making Processes related to the Prevention of, and Response to, Accidents Involving Hazardous Substances (1988)

[OECD/LEGAL/0239](#)

Decision on the Exchange of Information concerning Accidents Capable of Causing Transfrontier Damage (1988)

[OECD/LEGAL/0240](#)

Recommendation concerning the Application of the Polluter-Pays Principle to Accidental Pollution (1989) [OECD/LEGAL/0251](#)



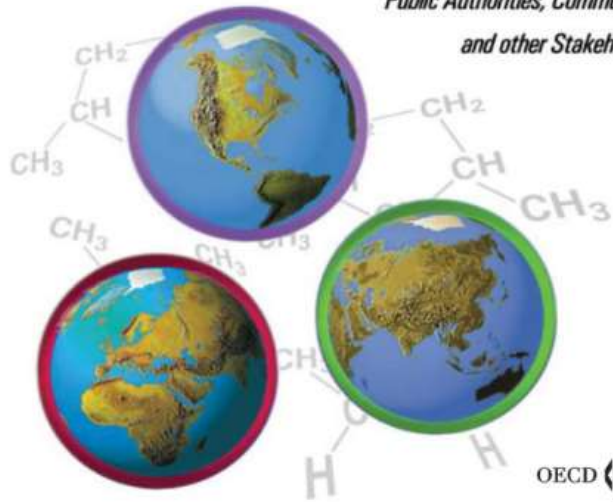
# OECD Guidelines

*Share experience and recommend appropriate policy options for enhancing the prevention of, preparedness for, and response to, chemical accidents.*

## OECD Guiding Principles for Chemical Accident Prevention, Preparedness and Response

*Guidance for*

*Industry (including Management and Labour),  
Public Authorities, Communities  
and other Stakeholders*



## Corporate Governance for Process Safety OECD Guidance for Senior Leaders in High Hazard Industries



## Guidance on Change of Ownership in Hazardous Facilities



## The Impact of Natural Hazards on Hazardous Installations



# Thank you for your attention

*Rosa Garcia Couto*  
*Scientific Affairs Officer*  
*Sustainable Transport Division*  
[rosa.garciacouto@un.org](mailto:rosa.garciacouto@un.org)

*Franziska Hirsch*  
*Secretary*  
*Industrial Accidents Convention*  
*Environment Division*  
*Focal Point for Disaster Risk Reduction*  
[franziska.hirsch@un.org](mailto:franziska.hirsch@un.org)



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