



## World Customs Organization

Rue du Marché  
30, B-1210  
Brussels,  
Belgium  
T: +32 (0)2 209 92 11  
[facilitation@wcoomd.org](mailto:facilitation@wcoomd.org)

## WCO Secretariat Note

### Disclaimer

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## How Customs Can Support the Safe and Secure Storage of Dangerous Goods

### I. Introduction

Events, as reported over the past several years, and studies on the storage of dangerous goods show that Customs plays a critical role in the management of dangerous goods. As Customs administrations, we have responsibilities for the protection of people, prosperity and the planet, in particular when goods are subject to Customs procedures in respect of import, export or transit, or when they are under Customs control pending export or release.

Handling of dangerous goods entails cooperation among a crop of regulatory authorities empowered with different functions and depends on WCO Members' domestic regulations and operations at borders. Nevertheless, it is essential to explore a synergetic approach where WCO Members can consolidate their efforts in handling dangerous goods.

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### II. Definition

Dangerous goods in general are substances that, when transported, are a risk to health, safety, property or the environment. They have one or more of the following attributes: radioactive, flammable, explosive, corrosive, oxidizing, asphyxiating, biohazardous, toxic, pathogenic, or allergenic. The United Nations lists dangerous goods in nine classes, whereby each type of dangerous goods is labelled with a United Nations Dangerous Goods (UNDG) Number and specified with goods descriptions and handling instructions accordingly.

An important group of dangerous goods are those that pose risks even when not being transported. They pose higher levels of danger and are known as hazardous materials (abbreviated as HAZMAT or hazmat).

Within the chemical hazardous material category, “dual use goods” are those used for commercial purposes that are also used by terrorists and criminals to manufacture Improvised Explosive Devices (IED) and synthetic drugs. These chemical dual use goods are known as precursor chemicals.

### III. Regulations

Before clarifying the role of Customs and the respective WCO instruments and tools available, we need to recognize international regulatory instruments, especially regarding transportation, labelling and storage of dangerous goods and hazardous materials already in place. From the global perspective, the United Nations called on relevant international organizations to harmonize international agreements and conventions governing the transnational transport of dangerous goods for the purpose of ensuring a high level of safety. Governments find the international regulatory instruments useful when they are translated into domestic legislation.

Below is a list of the more common international regulatory instruments (non-exhaustive list):

**The United Nations Economic and Social Council (ECOSOC)** has issued their Recommendations on the Transport of Dangerous Goods, which form the basis for most national, regional and international regulatory schemes.

**The International Civil Aviation Organization (ICAO)** has developed Technical Instructions for the Safe Transport of Dangerous Goods by Air which contain detailed

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instructions as necessary for carrying dangerous goods safely in international transport by air and avoiding placing an aircraft or its occupants at risk.

**International Air Transport Association (IATA)** has presented Dangerous Goods Regulations (DGR) as an industry standard for shipping dangerous goods by air.

Similarly, the **International Maritime Organization (IMO)** has laid out the International Maritime Dangerous Goods Code (IMDG Code). Chapter VII of the International Convention for the Safety of Life at Sea (SOLAS) addresses the carriage of dangerous goods by sea. The IMO also administers the Hazardous and Noxious Substances by Sea Convention (HNS Convention) to provide compensation in case dangerous goods spill in the sea.

In regard to hazardous materials, the **United Nations Economic Commission for Europe (UNECE)** has established its Global Harmonized System of Classification and Labelling of Chemicals (GHS), an internationally agreed system setting up classification and labelling standards on hazardous chemical substances and mixtures for worldwide application. The GHS contains, among other things, the Safety Data Sheet (SDS) which provides comprehensive information about the hazardous chemicals and necessary risk management.

**The World Customs Organization (WCO)** has designed a set of instruments and tools for the benefit of its Members in this domain (see details below). These instruments and tools assist Customs administrations, as well as other stakeholders, in reducing the challenges and risks associated to dangerous goods. Moreover, in partnership with other international organizations and stakeholders, the WCO is dedicated to reviewing its existing instruments and tools and developing new guidelines on controlling dangerous goods with a view to ensuring the safety and security of global supply chains.

### **IV. Significance of Customs control of dangerous goods**

Ninety-eight per cent of goods imported, exported or in transit are subject to control by Customs, no matter if they are transported by vessels or stored at ports. Dangerous goods and hazardous materials account for a considerable portion of international trade in goods. Dangerous goods may serve as intermediate materials (e.g. ethyl alcohol used for sanitizer) or semi knocked-downs (e.g. lithium batteries

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used for mobile phones). Such goods are regularly transported and stored throughout global supply chains.

In light of the nature of dangerous goods and hazardous materials, their potential illicit use, and the extensive sources of risk in their handling, transport and storage, it is imperative that they should be subject to comprehensive and intensive governmental, and especially Customs, controls in both regulatory and operational terms. This implies close cooperation with other governmental authorities and highlights that Customs administrations play an indispensable role at the border in controlling dangerous goods.

Consequently Customs administrations need to focus on:

- Risk management, including of risk assessment of procedures and places
- Duration of storage and maintaining control over stored goods
- Authorized Economic Operator (AEO) verification
- Documentation examination (e.g. bill of lading, safety data sheets)
- Physical inspection, examination and detection
- Non-intrusive inspection
- Investigation

and other necessary measures to mitigate risks and avoid accidents.

While there can be no absolute guarantee of safety with these goods, well documented risk assessments, the implementation of safe handling procedures for Customs and strict control over the transport, handling and storage of such goods by others when they are in Customs control significantly minimize risks.

### **V. WCO instruments and tools related to dangerous goods**

The WCO has several instruments and tools that are useful for Customs administrations in managing dangerous goods and hazardous chemical materials (e.g. precursor chemicals), including the Revised Kyoto Convention (RKC), the SAFE Framework of Standards (SAFE), Programme Global Shield (PGS), the COPES Programme, and the Risk Management Compendium.

#### **i. Revised Kyoto Convention (RKC)**

The International Convention on the Simplification and Harmonization of Customs procedures (as amended), also known as the Revised Kyoto Convention (RKC), is the

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blueprint for modern and efficient Customs procedures in the 21<sup>st</sup> century. The Convention entered into force in 2006 and comprises three main components, the Body of the Convention, the General Annex, and Specific Annexes. The General Annex contains standardized Customs procedures and practices regarding the storage of goods, including dangerous goods.

Provisions related to the storage of goods are found in three Chapters of the Specific Annexes, namely Chapter 2 (on **Temporary storage of goods**) of Specific Annex A, Chapter 1 (on **Customs warehouses**) and Chapter 2 (on **Free zones**) of Specific Annex D.

All provisions included in these three Chapters were drafted on the basis of the following principles:

- Temporary storage, under any Customs procedures, should be allowed for all goods. However, dangerous goods and goods which constitute a hazard, which are likely to affect other goods or which require special installations should be admitted only into temporary stores specially equipped and designated by the competent authorities to receive them. (**See Recommended practices 3 in Chapter A2, 5 in Chapter D1 and 6 in Chapter D2**).
- The Customs shall lay down the requirements as regards the suitability, construction, layout and management of areas where goods are temporary stored as well as the arrangements for the storage of goods, for stock-keeping and accounting and for Customs control (**See Standards 6 in Chapter A2, 4 in Chapter D1 and 3 in Chapter D2**).
- The duration of temporary storage should be limited as laid down by the national legislation and the time allowed shall be sufficient to enable the importer to complete the necessary Customs formalities, with adequate goods removal procedures, except for free zones where only in exceptional circumstances a time limit shall be imposed on the duration of the stay of goods. (**See standards 9 in Chapter A2, 11 in Chapter D1 and 14 in Chapter D2**).
- Customs control shall be conducted to carry out checks over the stored goods or Customs may ask responsible persons to take measures to supervise the

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stored goods (**See standards 6 in Chapter A2, 4 in Chapter D1 and 4 in Chapter D2**).

- The national legislation shall specify the procedure to be followed where goods are not removed from the areas where they were temporary stored within the period laid down (**See Standards 13 in Chapter A2 and 15 in Chapter D1**).

From the above principles, it is clear that temporary storage shall be allowed for all goods. However, goods which constitute a hazard or that are dangerous may be refused temporary storage where the facilities or location are not equipped or designed for such storage. In any case, the national legislation should provide more details on the special installations needed and a Customs administration should be allowed or tasked to perform relevant controls.

More information can be found in the “RKC Guidelines”, which provide detailed guidance on implementation of RKC provisions, indicate possible courses of action for implementation, and demonstrate best practices and examples.

### ii. SAFE Framework of Standards

The WCO SAFE Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework) provides technical standards that enable governments to secure their supply chains and facilitate legitimate trade. In particular, the SAFE Framework calls for enhanced cooperation between Customs and other governmental authorities, including aviation authorities, maritime and port security authorities, land transportation authorities, postal operators, and passenger control agencies. The cooperation may take the form of sharing common facilities and databases, exchanges of information, joint enforcement, alignment of programmes and measures, etc. Pillar 3 of SAFE Framework sets forth more specific standards:

- Governments should foster mutual cooperation between their Customs administration and other competent government agencies. Mutual cooperation is encouraged between Customs and other competent government agencies that regulate the movement of cargo in different modes of transport including intermodal. (**see Pillar 3 Standard 2.1 et 2.1.1**)
- Governments should develop and maintain cooperative arrangements or procedures among their agencies that are involved in international trade and

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security. Mechanisms should be established for ensuring inter-agency coordination to improve the efficiency and effectiveness of the supply chain security measures and operation. These mechanisms should allow for the alignment of functions and responsibilities amongst agencies in order to ensure efficient operations, optimal data quality, effective risk management and avoidance of duplication in the governmental efforts to secure and facilitate trade. **(see Pillar 3 Standard 2.2 et 2.2.1)**

- Governments should, where appropriate, align the requirements of the various security programmes/regimes that are implemented to enhance security of the international supply chain. **(see Pillar 3 Standard 2.3)**
- Governments should harmonize the supply chain security national control measures of government agencies, including risk management and risk mitigation, in order to limit any negative impact of those measures on legitimate trade and international movement. **(see Pillar 3 Standard 2.4)**

### **iii. Customs Operational Practices for Enforcement and Seizures (COPES) Programme**

The Customs Operational Practices for Enforcement and Seizures (COPES) Programme arose out of an awareness that many WCO Members needed to improve their evidence collection and seizures standards so as to integrate the activities of Customs services more effectively in relation to the criminal justice process and other challenges associated with border security. The COPES Programme aims to, among other things, raise awareness that the procedures for seizing goods and collecting evidence play an important role not only in enabling the proceeds of crime to be confiscated but also in supporting effective security practices at borders and within a country's territory. Therefore, both quality and safety of storage are prerequisites of the programme and are part of its main pillars.

The COPES Compendium contains general guidance and best practices and the Programme offers training that has been developed for managers and their frontline officers. An E-learning module is also available. A new institutional assessment tool including an evaluation of the ability of Customs administrations to deal with the storage of dangerous goods, may lead to recommendations and measures to be taken.

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The COPES Compendium provides guidance in a number of areas, including:

- Storage regulations for dangerous goods are a competence of each Member. Thus, they are encouraged to broaden the power of Customs and acquire civil administrative forfeiture and disposal authority. This allows for the sale or destruction of goods that do not comply with security regulations. The measures taken can thus prevent or limit the risk of any serious accident (**See Section 2: Role of legislation**).
- It recommends an overall strengthening of storage procedures and protocols for unsafe and hazardous goods (**See Section 3: Procedural aspects, consigning, storage, disposition of goods and special categories of seized goods**).
- Methodologies in terms of security and safety of Customs personnel are addressed through guidelines that are dedicated to port/border security, good practices on controls, hazardous and dangerous cargo operational practices, occupant emergency plans and security plans (**See Section 9: Security and safety of Customs personnel**).
- Dangerous or hazardous goods can constitute a threat from financial and legal points of view and in terms of Customs administrations reputations. Guidance is provided to reduce storage liabilities. Some of these aspects include detentions, refusal of admission/denial of entry, on-site mitigation, on-site destruction, constructive seizure, early release measures, substitution of collateral, as well as the immediate disposition of goods (**See Section 10: Resource impacts on Customs administrations**).
- Risks can be managed by implementing a regular inspection regime by the Customs administration itself of items under seizure or by both internal and external audits (**See Section 11: Accountability and performance management**).

The Compendium also provides sample documents and forms covering: a seized assets management checklist; a vault review checklist; a custody receipt for seized property; an order to destroy and record of destruction of forfeiture, abandoned or unclaimed merchandise; a disposition order; and, seizure regime flow charts. Specific training material has been developed on the topic of **Consignment, storage,**



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**disposition of goods and equipment.** The module designed for line managers and frontline officers aims to provide: understanding of the importance of the securing and preservation of goods seized by Customs officers; understanding that the handling, recording and storage of seized goods requires effective procedures and accountability practices; knowledge and skills development that will allow participants to make appropriate decisions when accepting, storing and disposing seized or retained items; and, assurance that the actions of Customs officers concerning seized/retained goods are in line with the best practices proposed by the COPES Programme. This data is summarized in a 45-minute long E-learning module.

Finally, a new institutional assessment tool which has a number of sections dedicated to the management and storage of seizures has been developed. It allows for a remote evaluation, followed by an onsite evaluation that leads to the development of recommendations and a work plan.

### **iv. Programme Global Shield (PGS)**

Programme Global Shield aims at raising awareness and building capacity on hazardous chemical dual use material, better known as precursor chemicals, detonators and all other material used by terrorists and criminals to manufacture Improvised Explosive Devices (IEDs). In partnership with INTERPOL and the UNODC, PGS monitors the licit movement of chemicals and counters the illicit diversion of precursor chemicals. This includes intensive training on the different materials, their labelling, handling, transport and storage.

PGS focuses on 13 main chemicals, e.g. solvents and fertilizers like acetone, nitromethane, ammonium nitrate or urea as well as 1 metal (aluminium) mostly used by criminals to manufacture IEDs.

PGS developed a practical pocket guide including all precursor chemicals, their commercial uses, their danger, their labelling, handling advice, HS and CAS codes. This pocket guide is freely available for all Members and is regularly distributed during training sessions.

Key elements of PGS capacity building activities, are risk management, examination and detection methods of the relevant materials. Besides document verification and examination techniques, the training contains hands on detection experience.

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To assist frontline Customs officers in detecting precursor chemicals on the spot, PGS, together with industry, developed special PGS detection kits. These test kits are regularly delivered to all Customs officers participating in any PGS training.

In addition, PGS is promoting and training on Raman Spectrometers (high quality scanners) for Customs administrations to buy. Depending on the donors within PGS projects, more than 20 benefiting African Members as well as 15 South East Asian Members have been equipped with these Raman Spectrometers.

Finally, PGS working in close cooperation with all important border agencies and regulatory authorities by conducting global and regional multi-agency operations.

Recently, the UNODC-WCO Container Control Programme (CCP) agreed to regularly include PGS modules in their CCP trainings.

For safe storage of hazardous material and precursor chemicals, PGS recommends Members to take the below measures, which are in line with UN regulations:

- Hazardous material shall be stored in well-ventilated areas, away from direct sunlight or other heat source, and away from sparks, flames, static electricity or other sources of ignition;
- Hazardous material storage should be away from heavily travelled areas;
- All packages in storage shall be labelled to allow unmistakable identification of the contents;
- Labels shall be reattached or replaced, as necessary, to clearly identify the contents of the package;
- Packages shall be inspected regularly to ensure their integrity;
- Leaking or damaged packages shall be removed to a safe area for repacking or disposal;
- Storage of hazardous material shall be based on the properties and mutual reactivities of the goods;
- All hazardous goods and especially chemicals should be stored in an upright position;
- All hazardous material and especially chemicals shall be stored in their original containers;
- No packages shall be stored on the floor;

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- Post emergency telephone numbers to be displayed in the storage areas;
- Install smoke detectors and appropriate fire extinguishers in all storage areas;
- Procedures shall be established to deal with clean-up and safe disposal of spillages; and
- An Emergency Response Plan should be in place to deal with accidents.

### **v. Risk Management Compendium**

Risk management is the key for Customs administrations to address risk wherever it is found. Increased automation and the submission of more comprehensive information earlier in the supply chain has enabled Customs to improve risk assessment and deployment of targeted Customs controls concentrated on the high-risk end of the risk continuum.

Today, the application of risk management is a critical element that underpins all modern Customs administrations. In order to determine where the greatest areas of exposure to risk exist and how to effectively allocate scarce resources to manage these risks, Customs administrations are increasingly adopting risk management techniques. This enables the objectives set for Customs by government to be achieved and the expectations of the trading community and citizens alike to be met.

Considering developments in global trade, the WCO developed the Customs Risk Management Compendium in order to better assist its Members. The methodology outlined in the Compendium establishes a common framework, but, at the same time, it stays sufficiently flexible in order to meet the unique conditions of individual WCO Members.

The Compendium is comprised of two separate, but interlinked, volumes. Volume 1 sets out the organizational framework for risk management and outlines the risk management process. Volume 2, available to Members only, deals with risk assessment, profiling and targeting tools that inform selection criteria for identifying high-risk consignments, passengers and conveyances for Customs intervention.

At the operational level, Customs administrations are encouraged to implement risk-based control procedures that are informed by intelligence and information holdings. The aim of these procedures is to identify reliable operators and persons and low risk consignments or transactions which may benefit from greater facilitation

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as opposed to those that require higher levels of control.

In order to ensure that adequate risk assessment takes place, Customs administrations should require advance electronic cargo information in a timely manner. Implementing advance cargo information, combined with processing through appropriate Customs risk management systems, allows Customs administrations to protect their territory and supply chains from several threats since it allows Customs administrations additional time to scrutinize consignments prior to their arrival.

Although there might be other channels for receiving advance information related to dangerous goods, Customs advance cargo information could also be utilized for alerting relevant agencies regarding the arrival of dangerous goods. Advance information on dangerous goods allows Customs administrations and other relevant agencies to take the necessary measures as early as possible.

For those Customs administrations that require it, the WCO Cargo Targeting System provides the capability to receive advance cargo information and systematically apply risk profiles to identify high-risk cargo consignments for Customs intervention whilst providing a basis to facilitate those deemed not to pose a threat.

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### **Annex: List of WCO Instruments and Tools related to Dangerous Goods**

#### **1. Revised Kyoto Convention (RKC):**

[http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/conventions/pf\\_revised\\_kyoto\\_conv.aspx](http://www.wcoomd.org/en/topics/facilitation/instrument-and-tools/conventions/pf_revised_kyoto_conv.aspx)

#### **2. SAFE Framework of Standards:**

<http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/instruments-and-tools/tools/safe-package/safe-framework-of-standards.pdf?la=en>

#### **3. Customs Operational Practices for Enforcement and Seizures (COPES) Programme:**

<http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/compendiums/copes.aspx>

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### **4. Programme Global Shield (PGS):**

<http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/security-programme/pgs/programme-global-shield-en.pdf?la=en>

General information on PGS, a revised list of all monitored chemical precursors, the PGS brochure and the WCO Pocket Guide containing precursor chemicals, its labelling, handling, general usage etc. to be retrieved within

PGS e-learning module on **WCO learning platform CLiKC!**  
([click@wcoomd.org](mailto:click@wcoomd.org))

PGS National Contact Points (NCP) may access the WCO permanent PGS CENcomm application and will get additional information on precursor chemicals, IEDs etc. within its library:

<https://cencomm2.wcoomd.org/itp/en/login.jsp>

### **5. Risk Management Compendium:**

<http://www.wcoomd.org/en/Topics/Facilitation/Instrument%20and%20Tools/Tools/Risk%20Management%20Compendium>

### **6. WCO Container Control Programme (CCP)**

Marine online tutorials:

Transport operations of dangerous goods  
<https://youtu.be/k-WFC-Qf3bM>

Dangerous goods classes and classification  
<https://youtu.be/EX4zWiRmDoM>

The IMDG code  
<https://youtu.be/9k0LrU0Z1HU>

Packing And Tank Provisions  
<https://youtu.be/HfPVVaP0ACc>

### **7. WCO Information & Intelligence Centre I2C**

In case of any urgency or request members may not know to whom to be addressed to, they can get in touch with the WCO I2C Information and Intelligence Centre Monday through Friday 9.00am -6.00pm. I2C will assist and reply in due time.

Email address:  
[I2C@wcoomd.org](mailto:I2C@wcoomd.org)