ARTICLE 3. PACKING, EXPORT MARKING, PREPARATION FOR SHIPMENT AND PACKAGING

A. All Goods supplied under this Subcontract shall be packed and marked for export as required by the Subcontract and by all applicable transportation regulations, carrier tariffs, US FDA/SRA regulations (if any), and sound commercial practice. Without limiting the generality of the foregoing, all Goods shall be properly prepared for export according to the best international packing standards suitable to prevent theft, loss, or damage and to withstand exposure to the elements, including extreme temperature and water, and rough handling during air, sea or land shipment.

B. The Supplier shall be solely responsible for complying with all applicable laws and sound international practices, which includes having all relevant licenses in places at the Supplier's factory for the Goods and for shipping/loading in accordance with the applicable INCOTERM, for the packaging and labeling of the Goods (including, if applicable, hazardous materials safeguards).

C. Packaging shall be prepared in accordance with the Subcontract and to ensure that:

(1) All tertiary, secondary, and primary (when applicable) packaging for Goods are properly labelled per Section E below and clearly identifies any special handling instructions and/or temperature requirements.

(2) Euro pallets (100x120 is preferable size, 80x120 is acceptable in consultation with PSM), heat treated

(3) Pallet height not to exceed 1.25 m (incl. pallet)

(4) Partial cartons, including those with batch-end products, require an extra label clearly marking the carton as "Partial" or equivalent and the quantity of units included within.

(5) Like product and batches should be kept contiguous when loaded into containers and should not be separated. Corrugated separator sheets should be used between batches when multiple batches are packed on the same pallet.

D. Packaging should clearly state whether or not pallets can be stacked.GHSC-PSM is implementing global standards for product identification, labeling and data exchange as detailed below. Please see attached supplement titled *GHSC-PSM Global Standards Technical Implementation Guideline* for definitions and information on how to implement this requirement.

(1) *Identification*. GHSC-PSM requires that all global health commodities are identified as followed:

(a) Within six months of the start date of the contract and mandatory immediately as of December 30th 2018, the Supplier must assign and provide GHSC-PSM with a Global Trade Item Number (GTIN) for each level of the packaging hierarchy (e.g. pallet, case, inner box, each).

(b) Within six months of the start date of the contract and mandatory immediately as of December 30th 2018, the Supplier must assign and provide GHSC-PSM with a Global Location Number (GLN) for each billing, manufacturing, and shipping entity with which GHSC-PSM may transact.

(2) *Labeling.* GHSC-PSM requires that pharmaceuticals, medical devices, sterile kits, and reagents are labeled as follows:

(a) Pharmaceuticals

(1) Tertiary Packaging – Logistics Unit

(i) The minimum GS1 identification keys and application identifiers (AIs) to be included in a GS1-128 barcode, with the applicable human readable interpretation (HRI) printed adjacent:

Application Identifier	**Requirement Date**
(00) Serial Shipping Container Code (SSCC)	As soon as possible (ASAP) but no later than (NLT) Jun 30, 2022

If and when the GS1 DataMatrix is recommended for use on the logistic unit in the GS1 General Specification, that data carrier will be permitted to meet the GHSC-PSM logistic unit labeling requirement.

(2) Tertiary Packaging – Trade Item

(i) The minimum GS1 identification keys and AIs to be included in a GS1-128 barcode or GS1 DataMatrix, with the applicable HRI printed adjacent:

Homogenous Pack	
Application Identifier	**Requirement Date**
(01) Global Trade Item Number (GTIN)	ASAP but NLT Dec 30, 2018
(10) BATCH/LOT	ASAP but NLT Dec 30, 2018
(17) EXPIRATION DATE	ASAP but NLT Dec 30, 2018
(21) SERIAL NUMBER	ASAP but NLT Jun 30, 2022

Mixed or Partial Pack	
Application Identifier	**Requirement Date**
(00) SSCC	ASAP but NLT Jun 30, 2022

(ii) Until compliance with the December 30, 2018 global standard requirement above or in the case an exception is granted, the tertiary pack trade item must be labeled with the GHSC-PSM SKU, batch/lot number, expiration date, and quantity in human readable form at a minimum.

(3) Secondary Packaging – Trade Item

(i) The minimum GS1 identification keys and AIs to be included in a GS1 DataMatrix, with the applicable HRI printed adjacent:

Application Identifier	Requirement Date
(01) GTIN	ASAP but NLT Jun 30, 2020
(10) BATCH/LOT	ASAP but NLT Jun 30, 2020
(17) EXPIRATION DATE	ASAP but NLT Jun 30, 2020
(21) SERIAL NUMBER	ASAP but NLT Jun 30, 2022

(b) Medical Devices, Sterile Kits, and Laboratory Reagents

(1) Tertiary Packaging – Logistics Unit

(i) The minimum GS1 identification keys and AIs to be included in a GS1-128 barcode, with the applicable HRI printed adjacent:

Application Identifier	Requirement Date
(00) SSCC	ASAP but NLT Jun 30, 2022

If and when the GS1 DataMatrix is recommended for use on the logistic unit in the GS1 General Specification, that data carrier will be permitted to meet the GHSC-PSM logistic unit labeling requirement.

(2) Tertiary Packaging – Trade Item

(i) The minimum GS1 identification keys and AIs to be included in a GS1-128 barcode or GS1 DataMatrix, with the applicable HRI printed adjacent:

Homogenous Pack	
Application Identifier	**Requirement Date**
(01) GTIN	ASAP but NLT Dec 30, 2018
(10) BATCH/LOT (as applicable)	ASAP but NLT Dec 30, 2018
(17) EXPIRATION DATE (as applicable)	ASAP but NLT Dec 30, 2018

Mixed or Partial Pack	
Application Identifier	**Requirement Date**
(00) SSCC	ASAP but NLT Jun 30, 2022

(ii) Until compliance with the December 30, 2018 global standard requirement above or in the case an exception is granted, the tertiary pack trade item must be labeled with the GHSC-PSM SKU, batch/lot number, expiration date, and quantity in human readable form at a minimum.

(3) Secondary Packaging – Trade Item

(i) The minimum GS1 Identification Key and AI to be included in a GS1-128 barcode or GS1 DataMatrix, with the applicable HRI printed adjacent:

Application Identifier	**Requirement Date**
(01) GTIN	ASAP but NLT Jun 30, 2020
(10) BATCH/LOT (as applicable)	ASAP but NLT Jun 30, 2020
(17) EXPIRATION DATE (as applicable)	ASAP but NLT Jun 30, 2020

E. **Product Master Data**

Master data for all pharmaceuticals, medical devices, sterile kits, and reagents, including the GTIN and all relevant requested attribute data, must be provided to GHSC-PSM through the Global Data Synchronization Network (GDSN). Submission of master data through the GDSN is requested on a voluntary basis within six months of the subcontract start date and will be mandatory upon contract signing as of December 30th, 2019. To access the *GHSC-PSM Data Synchronization Implementation Guide* and *GHSC-PSM Attribute Guide*, please see www.1worldsync.com/customer-page/ghsc-psm.

To comply with the identification requirement and prior to transitioning to the GTIN-based labeling requirement, the Subcontractor must provide the GTIN and other relevant product master data to GHSC-PSM. Until the date by which master data synchronization via the GDSN is compulsory, master data shall be provided in the GHSC-PSM Product Master Form.

Master data for all other products procured under this Subcontract is voluntary via the GDSN and otherwise shall be provided in the GHSC-PSM Product Master Form.

Product master information shall be maintained routinely and updated whenever attribute details (e.g. shelf life, weights, dimensions) change or new products are introduced.

F. **Transaction and Production Data**

For orders with incoterms other than DAP or DDP, all transaction and production data must be provided to GHSC-PSM through the ARTMIS Logistics Management Information System (LMIS), including but not limited to the SSCC, GTIN, batch/lot number, and expiration date. For orders with incoterms DAP or DDP, all transaction and production data must be provided to GHSC-PSM via the Procurement Specialist. Data presented on transaction documents – including but not limited to the packing list, commercial invoice, and advanced ship notice – must align with the identifiers used on the shipping label (i.e. once the Subcontractor has transitioned to using the GTIN as the primary identifier, this must be used on packing lists as well).

G. Within 30 days of a request, the Supplier will make serial number data for goods procured under this subcontract in the format requested by Chemonics.

H. A complete itemized packing list shall be carried in a secure, durable clearly-marked "packing list" envelope affixed to the outside of each pallet, shipping container or box that represents a separate unit of the shipment used to deliver the Goods. Each packing list must show the specified Chemonics Subcontract number (unless otherwise required by Chemonics in writing,

a complete narrative description of the Goods, all applicable part numbers, and the corresponding line item number.

I. Damage resulting from improper packing, export marking and preparation for shipment shall be the liability of the Supplier and deducted from amounts due.

J. No extra charge shall be payable by Chemonics for export packaging, crating, boxing, handling, dunnage, drayage, storage, or any other action necessary to comply with the requirements of this clause or for any transfer to Chemonics nominated carrier unless specifically stated in this Subcontract or otherwise agreed to by Chemonics in writing.

K. In addition and without the prejudice to afore-mentioned paragraphs, the following further requirements shall apply to Pharmaceuticals, test kits, and other medical products: packaging, packing and marking shall be in accordance with applicable FDA regulations and the Manufacturer's current public sector packaging for overseas distribution. Packaging and packing must ensure the safety, efficacy and quality of the product and be appropriate for distribution in harsh climates under less than ideal transport and storage conditions.

L. In addition, the following further requirements shall apply only to Subcontracts for the supply of Pharmaceuticals: the Supplier shall supply the Pharmaceuticals in closed pharmaceutical storage containers, i.e. bottles, tins, vials, ampoules, bubble pack, ensuring that the containers adequately protect the Pharmaceuticals while they are in transit, or stored in warehouses, or on pharmacy shelves under conditions expected to prevail in the Cooperating Country(ies). The Supplier shall mark each pharmaceutical storage container (or in the case of ampoules, the box containing them) with the following information, in English (unless otherwise specified on the PO):

(1) the International Nonproprietary Name (INN) of the product;

(2) the pharmacopeia standard, e.g. USP; EP, BP, or BPC monograph, if applicable;

(3) the strength of the preparation, if applicable;

(4) the name and location of the manufacturer;

(5) the date (YYYY-MM-DD) the Goods were manufactured, if applicable;

(6) the Expiry Date, if applicable;

(7) any other marking specified in the PO.

If labels are used, these shall be affixed with adhesive suitable for conditions in the Cooperating Country(ies).