1. **PURPOSE:** This specification presents the requirements and procedures for protecting materials and equipment during shipment in a container, by air, overland and also for extended storage and multiple handling in Saudi Arabia.

2. **USE:** This specification is a statement of minimum requirements. The vendor's own experience and practice should be used to determine whether certain items require more than the minimum standards in this specification to ensure safe delivery to their final destination. This specification may also be used by Saudi Aramco/Aramco Services Company/Aramco Overseas Company, B.V., receiving staff at loading ports/airports to determine if goods are adequately packed.

3. **REQUIREMENTS:** These requirements are in addition to any that may be in the material descriptions or other Saudi Aramco specifications. Deviation from these requirements is not allowed without the Buyer's prior written approval.

   3.1 Atmospheric protection: All items require protection from rain, sea spray, condensation, high humidity, high temperature, and fine dust.

      3.1.1 All surfaces subject to corrosion must be treated with an appropriate protective compound.

      3.1.2 Materials that must be sealed against atmospheric intrusion must be placed in moisture-/vapor-proof packages, protected with a suitable desiccant.

      3.1.3 All openings in equipment or materials susceptible to atmospheric damage must be securely sealed.

3.2 Packing: A heavy standard domestic pack is required unless the Buyer specifically requests a different type of pack. The pack must adequately protect the material prior to, during, and after handling and stacking and shipment in a container, aircraft, or on a truck or trailer.

   3.2.1 If cartons are used, they must be of adequate bursting strength and construction to retain their original configuration and ability to protect their contents during handling, stacking, shipment, and storage.
3.2.2 To reduce shipping costs, unnecessary free space within the pack must be avoided.

3.2.3 All packaging, including protectors and atmospheric inhibitors, must be sound and undamaged after packing.

3.2.4 If an item consists of more than one component, the components must be either assembled or packaged together, whichever is appropriate, as a single unit of issue. Components should only be assembled as a single unit in a pack when it will not negatively impact safe and cost-effective packing.

3.2.5 Items in the pack must be prevented from damaging each other.

3.2.6 Finished and coated surfaces must be protected from rubbing or abrasion.

3.2.7 Preferably, purchase order line items should be segregated and packed separately.

3.3 Unitization: Containers and trucks are generally stuffed/loaded and stripped/unloaded by mechanized material handling equipment; for example, a low-mast forklift. Packed material must be unitized whenever the configuration permits.

3.3.1 Cargo delivered to the Buyer by truck for onward shipment to Saudi Arabia must be loaded on "container pallets" with 4-way entry, dimensions of 100 cm (40 inches) by 120 cm (48 inches), and a clearance for forklift tines of not less than 8.9 cm (3.5 inches). Total loaded pallet height (ground to top of loaded pallet) shall not exceed 115 cm (46 inches).

3.3.2 Cargo delivered by truck directly to a Saudi Aramco designated storehouse in Saudi Arabia must utilize a pallet furnished by the vendor which meets the standards set forth in Saudi Aramco Packing Specification 8314-05 (that is, a 2-way entry, double deck, non-reversible wing-type pallet having dimensions of 120 cm by 120 cm [48 inches by 48 inches]), or any other pallet whose configuration has been previously approved by the Buyer.

However, locally manufactured or purchased materials must be delivered to Saudi Aramco in a manner that accommodates mechanized material handling or by being unloaded from the vendor's truck using vendor labor and being placed neatly and securely on pallets provided by Saudi Aramco. Pallet overhang is allowed for large, bulky items provided there is no possibility of damage to the material. (If there is a possibility of damage, receiving personnel must contact the Buyer for instructions and possible change of packing specifications.)

3.3.3 Single pieces weighing more than 35 kg (80 lb) must, whenever possible and practical, be unitized.
3.3.4 With prior Buyer approval, a supplier’s standard unitized load configuration may be acceptable provided that it conforms with the following:

a. Specific weight and dimension limits set forth in paragraph 3.4.1.

b. A clearance for forklift tines of at least 8.9 cm (3.5 inches).

c. General adherence to other provisions set forth in this specification.

3.3.5 Unless authorized by the Buyer, items with different purchase order numbers must not be consolidated.

3.4 Weight and dimension limits:

3.4.1 Individual items and unitized loads must not exceed:

a. 1,860 kg (4,100 lb) maximum gross weight.

b. 220 cm (87 inches) in any dimension (height, width, or length).

Note: These limits include tare weights (a) and are extreme overall dimensions (b).

3.4.2 Deviation from these limits is not permitted without prior written approval from Saudi Aramco Dhahran Materials & Logistics Department/ Traffic Division, Dhahran.

3.5 Hazardous materials: Materials which are subject to International Maritime Organization (IMO), International Air Transport Association (IATA), Saudi Arabian Standards Organization (SASO), United States Department of Transportation (DOT), International Civil Aviation Organization (ICAO), or other industry or government organization directives or regulations require that the vendor must be in full compliance with those directives in the treatment of the materials.

3.5.1 All hazardous materials must be packed separately from other non hazardous materials.

3.5.2 All hazardous materials must be identified by the proper shipping name and packaged, packed, and labeled in accordance with the applicable directives, regulations, and specifications established in paragraph 3.5 and the purchase order.

3.5.3 Deviation from these requirements is not permitted without prior written approval from Saudi Aramco Dhahran Materials & Logistics Department/ Traffic Division, Dhahran.
3.6 Marking: Individual items, packages, packs, and unitized loads must be marked in accordance with instructions provided with the Saudi Aramco purchase order.

3.7 Vendor container-stuffing: If the vendor has container-stuffing facilities and if the quantity and type of material warrant, the vendor must notify the Buyer. (Saudi Aramco Packing Specification 8314-01 provides a guide to vendors for container-stuffing.)

3.8 Bulk materials: The vendor must obtain prior Buyer approval of his proposed delivery method, and the Buyer must make specific arrangements with the end user/receiver to accept the delivery.