

ENVIRONMENTAL SPECIFICATION

502-1063-00

Regulatory Compliance

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Purpose:

This Environmental Specification (the "Specification") describes the current environmental regulatory requirements of UNICOM Engineering for all components, materials, modules, products or sub-assemblies (collectively referred to hereafter as "parts"), and packaging materials supplied to UNICOM Engineering for distribution or for integration into finished goods, in accordance with:

- The Restriction of Hazardous Substances (RoHS)
- The Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)
- Conflict Minerals (U.S. Security & Exchange Commission, §1502, "Dodd-Frank Act")
- Packaging and Packaging Waste Directive of the European Union (EU 94/62/EC)
- Other local, regional or international regulations deemed applicable for proper distribution by UNICOM Engineering and its Customers

Scope:

All Original Equipment Manufacturers (OEM), suppliers, vendors or other actors in the supply chain (hereafter "Suppliers") providing parts for distribution or for integration by UNICOM Engineering.

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Environmental Specification Regulatory Compliance

Glossary of Terms

Acronyms and special terminology appearing in this document:

Term	Definition
3TG	Rare earth minerals (Tantalum, Tin, Tungsten, Gold, commonly referred to as “3TG”) from mining operations linked by the United Nations to human rights abuses and environmental degradation
Article	(1) An object composed of one or more substances or mixtures which, during production, is given a special shape, surface or design that determines its function to a greater degree than does its chemical composition; (2) any single component in a product
CAS	Chemical Abstract Service number uniquely assigned to identify a chemical substance
CMRT	Conflict Minerals Reporting Template of the Responsible Sourcing Initiative (RSI)
Component	Any electronic, electric or mechanical part that <u>cannot</u> be disassembled without destruction (e.g., resistor, integrated circuit, rail, front plate, etc.) but <u>can</u> be integrated into a UNICOM Engineering assembly or finished good
DCF	Data Collection Form
Deliverable	Any tangible item(s) delivered by or through a Supplier to UNICOM Engineering in accordance with a purchase contract or other agreement with UNICOM Engineering. Deliverables include, but are not limited to components, materials, parts and products
DoC	Declaration of Conformance/Conformity
EEE	Electronic and Electrical Equipment
EFUP	Environment-Friendly Use Period (China RoHS)
EICC	Electronic Industry Citizenship Coalition
EMC	Electromagnetic Compatibility
Homogeneous material	Of uniform composition throughout (e.g., alloys, ceramics, coatings, flux, glass, metals, plastics, resins, solder)
Intentionally added	Deliberate use in a product, material, part, assembly
ITE	Information Technology Equipment
MDDS	Material Declaration Data Sheet
OEM	Original Equipment Manufacturer; original manufacturer of any product made available by a Supplier to UNICOM Engineering. For purposes of this Specification, “Supplier” shall also refer to OEM.
Packaging	All products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods from the producer to the user or the consumer*. *Note: ‘Non-returnable’ items used for the same purposes are also considered to constitute packaging.
PO	Purchase Order
ppm	Parts per million = mg/kg. Mass of substance as a percentage of the homogenous material; the weight of substance in the entire part or product unless otherwise noted. 1000 ppm = 0.1%; 100 ppm = 0.01% by weight
Product	Any part, assembly or sub-assembly supplied to UNICOM Engineering; also any assembly or finished good produced by UNICOM Engineering
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals, the European Commission Regulation Number 1907/2006

Term	Definition
Regulation(s)	Requirements as defined by local, regional and international laws, directives, regulations, international standards, and best practices
RoHS	European Union Directive 2011/65/EU restriction of the use of certain hazardous substances in new electrical and electronic equipment; effective since July 1, 2006
Supplier	OEM, distributor, vendor or other actor in the supply chain bringing product to UNICOM Engineering
SVHC	Substance(s) of Very High Concern

References

Additional guides and documents supporting this document:

Reference Doc #	Description
California Proposition 65	Officially the Safe Drinking Water and Toxic Enforcement Act of 1986, enforced by California's Office of Environmental Health Hazard Assessment (OEHHA) to protect the state's drinking water sources from chemicals known to cause cancer, birth defects or other reproductive harm.
Dodd-Frank Act	Dodd-Frank Wall Street Reform and Consumer Protection Act (Section 1502(b)): U.S. Securities and Exchange Commission adopts Rule 13(p)(1) under the Securities Exchange Act, as pertains to the global Responsible Minerals Initiative to dissuade and discourage trade in rare earth minerals from mining operations that support regional conflict (Conflict Minerals).
(EU) 2015/863	Amendment to Annex II of RoHS 2, adding 4 hazardous substances to RoHS 2011/65/EU
(EU) 94/62/EC	Packaging and Packaging Waste Directive of European Union, as amended by Regulation (EC) No. 1882/2003, Directive 2004/12/EC and 2005/20/EC.
REACH Directive	Regulation (EC) No 1907/2006 of the European Parliament and of the Council, 18 December 2006 and amendments
RoHS 2011/65/EU	Directive 2011/65/EU of the European Parliament and of the Council, 8 June 2011 (recast)

OVERVIEW

UNICOM Engineering is committed to minimizing the social and environmental impact of our operations and the products we build.

UNICOM Engineering, Inc. has fully adopted the Electronic Industry Citizenship Coalition (EICC) Code of Conduct. The mission of Regulatory Compliance at UNICOM Engineering is to ensure that our products comply with the many global requirements for safety and electromagnetic compatibility (EMC) and to environmental requirements for information technology equipment (ITE).

This Specification communicates the guidelines and requirements of UNICOM Engineering to our suppliers to ensure conformity to the EICC code and to a growing number of regulatory directives around the world. It is designed to help us adhere to applicable laws, regulations and customer requirements regarding prohibition or restriction of specific substances in products and manufacturing throughout the product lifecycle.

- (i) This Specification is a dynamic document. Revision changes to this document will reflect updated references, additions or re-releases of environmental directives or product regulatory requirements.
- (ii) Supplier shall review this Specification when supplying any new product or revised product to UNICOM Engineering.
- (iii) Review of this Specification is required for any new part release or update/re-release.
- (iv) When material is a re-order, review of this Specification is required only if materials or the processes for creating the product have changed.

Supply Chain Responsibility

There are a growing number of environmental regulations and policies that affect product manufacture, the importation and exportation of products, and the disposal of waste and restricted substances. Environmental regulations can carry fiscal and criminal penalties for non-compliance.

UNICOM Engineering monitors the components and sub-assemblies used in our products to ensure they meet or exceed conformance requirements, material(s) restrictions, and other regulatory obligations locally, regionally, and globally. As a system integrator, UNICOM Engineering does not manufacture or contract the manufacture of components. Instead, we rely on declarations of compliance from the complex global value chain of Suppliers and other stakeholders who provide the parts used in the products we build.

We hold these Suppliers to high standards as defined by local, regional and international laws and regulations, international standards, and best practices (hereafter “Regulations”) to protect ourselves and the Customers we serve.

1. Jurisdiction

UNICOM Engineering regularly monitors new release or updates to Regulations locally, regionally and internationally. Regulations followed by UNICOM Engineering can fall within the jurisdiction of various States within the United States, Member States of the European Union (EU), and/or jurisdictions outside the EU Member States.

Suppliers agree to provide statements or certificates of compliance per this Specification to meet the needs of UNICOM Engineering, irrespective of where Supplier is located.

2. Documentation

Documentation demonstrating conformance to Regulations is expected from Suppliers (including sub-Suppliers) for all deliverables to UNICOM Engineering.

2.1 Product Compliance

- a) Suppliers agree that deliverables to UNICOM Engineering will meet the requirements of this Specification including any special requirements for specific jurisdictions if indicated to Supplier at time of purchase;
- b) Suppliers will provide documentation to UNICOM Engineering in the written or electronic format requested for the Regulation(s), to demonstrate product compliance;
- c) All deliverables supplied to UNICOM Engineering will comply with the latest version of the Regulations.

2.2 Verification

Data analysis, test reports, supplier data, or other technical documentation in support of compliance certification(s) must be maintained by the Supplier or Certifier and be auditable upon request.

Mechanical Drawings

Any deliverable (packaging and packing materials; metal or metallic parts; resin; and non-packaging plastic, tape or foam used in an electrical or electronic product) produced following a UNICOM Engineering mechanical drawing shall also meet the expectations of this Specification for environmental compliance.

Each UNICOM Engineering mechanical drawing will reference this Specification (502-1063-00). The manufacture or fabrication of a part per UNICOM Engineering drawing therefor implies the Supplier has complied with compliance details outlined in this Specification.

3. Mechanical Drawings – Packaging

See: Mechanical Drawings - Packaging and Packing Materials, Pg. 16

4. Mechanical Drawings – Parts

4.1 Certificates of Compliance

Although a (non-packaging) part is manufactured according to a mechanical drawing, certificates of compliance by the Supplier are still required to cover constituency of the materials used in the manufacturing process or fabrication of the product.

4.1.1. Applicability

See **Table 3** – Applicability, Pg 8.

4.1.2. Certificates of Compliance – Format

Any declaration form or statement provided by or originating with the supplier shall be considered a legally binding document.

For acceptable format, refer to Specification(s) within this document that are applicable to the product.

4.1.3. Submitting Certificates of Compliance

Certificates of Compliance shall be submitted:

- a) as required with initial delivery of part per PO; and
- b) at the time a replacement or revised product is supplied to UNICOM Engineering for an existing PO;
- c) upon request of Regulatory Compliance or Mechanical Engineering at UNICOM Engineering.

4.2 Flammability

The specification of any (non-packaging) plastic, foam, or tape used in an electrical or electronic product must include the manufacturer, manufacturer part number, and flammability rating of the material. The flammability of plastics and foam is defined via UL 94.

The tables below list the flammability rating from the highest rating (top) to the lowest rating (bottom). If the actual rating of the part is higher in the table than the requirement, then it is acceptable.

Table 1 – Minimum Flammability for Plastic

Rating	Required for
5VA	
5VB	
V-0 / VTM-0	
V-1 / VTM-1	Materials for fire enclosures
V-2 / VTM-2	Connectors Components/parts <i>inside</i> of fire enclosure Air filter assemblies
HB / HB40	Components/parts <i>outside</i> of fire enclosure (material thickness ≥ 3mm)
HB / HB75	Components/parts <i>outside</i> of fire enclosure (material thickness < 3mm)

Table 2 – Minimum Flammability for Foamed Material

Rating	Required for
HF-1	
HF-2	Components/parts <i>inside</i> of fire enclosures Air filter assemblies
HBF	Components/parts <i>outside</i> of fire enclosure

APPLICABILITY

To view Regulations applicable to part types, see table below. This table will be updated as additional regulatory requirements are added by UNICOM Engineering.

Where a Regulation is applicable to an item type, Supplier shall provide the certificate(s) of compliance as outlined in the following section(s) of this document.

Table 3 – Applicability

ITEM Type	Regulation					
	RoHS 2011/65/EU	EU 2015/863 RoHS Phthalates Amendment	REACH	California Proposition 65	Conflict Minerals	Packaging Directive
Metals, metallic, and electrical components	✓	✓	✓	✓	✓	X
Resin	✓	✓	✓	✓	X	X
Plastic (non-packaging)	✓	✓	✓	✓	X	X
Foam (non-packaging)	✓	✓	✓	✓	X	X
Packing Materials	X	X	X	✓	X	✓
Boxes & Cartons	X	X	X	✓	X	✓

✓ = Regulation or Directive applies to Item Type
X = Does not apply

ENVIRONMENTAL REGULATIONS

UNICOM Engineering takes a proactive approach to meeting environmental regulations locally, regionally and globally. So we can address the needs and concerns of our customers and stakeholders and can comply with end-use destinations, our Suppliers are expected to certify their deliverables meet or exceed applicable environmental standards.

5. RoHS

For product applicability, see **Table 3 – Applicability**.

5.1 Description

The Restriction of Hazardous Substances (RoHS) Directive 2002/95/EC, “RoHS 1” was adopted in February 2003 by the European Union, and took effect on July 1, 2006. This directive and its subsequent RoHS-Recast, RoHS 2011/65/EU (**RoHS 2**) impose threshold limits (with exemptions) for six hazardous materials commonly used in Electronic and Electrical Equipment (“EEE”).¹

Any RoHS compliant component must contain no more than 0.1% of the specified restricted substances (other than cadmium, which is restricted to 0.01% of homogeneous material). Restricted materials must not have been intentionally added to the component.

¹ In the EU, some military and medical equipment are exempt from RoHS compliance.

RoHS 2011/65/EU Restricted Substances and Thresholds

- ✓ Lead (Pb): <0.1% by weight of homogeneous material
- ✓ Mercury (Hg): <0.1% by weight of homogeneous material
- ✓ Cadmium (Cd): <0.01% by weight of homogeneous material
- ✓ Hexavalent Chromium (Cr+6): <0.1% by weight of homogeneous material
- ✓ PolyBrominated Biphenyls (PBBs): <0.1% by weight of homogeneous material
- ✓ PolyBrominated Diphenyl Ethers (PbDEs): <0.1% by weight of homogeneous material

RoHS (EU) 2015/863 amended RoHS 2 by adding phthalates of concern (mandatory by 22-Jul-2019) with concentrations of no more than 0.1% homogeneous material:

- ✓ Bis (2-ethylhexyl) phthalates (DEHP)
- ✓ Benzyl butyl phthalate (BBP)
- ✓ Dibutyl phthalate (DBP)
- ✓ Diisobutyl phthalate (DiBP)

5.2 Supplier Expectations – RoHS

UNICOM engineering relies on our suppliers to provide the documentation and information necessary to demonstrate RoHS compliance.

5.2.1. DoC and CE Mark

When compliance to the RoHS Directive is demonstrated for EEE, manufacturers will create a Declaration of Conformity (DoC) and affix the CE mark to the finished product. Product technical documentation and the EU DoC must be retained for ten (10) years after the EEE item is last on the market.

5.2.2. RoHS Declaration

Supplier shall submit a RoHS certificate of compliance to UNICOM Engineering declaring compliance to RoHS 2011/65/EU and its amendments and reporting any exemptions taken. See Section 5.3 for acceptable declaration formats.

5.3 RoHS Reporting Formats

Suppliers agree to report product compliance to UNICOM Engineering in one of the acceptable formats outlined below, and to provide future updates promptly when requested by UNICOM Engineering.

5.3.1. CE Declaration of Conformity (DoC)

Provided by a manufacturer or his representative to declare how a product complies with the health and safety requirements of the European Union (EU) RoHS legislation.

5.3.2. MDDS – Material Declaration Data Sheet

5.3.3. RoHS Data Collection Form (DCF)

Provided by UNICOM Engineering. Locate the form in the RoHS section of the Regulatory Compliance pages of UNICOM Engineering at <http://www.unicomengineering.com/services/regulatory-compliance#rohs>

5.3.4. IPC API or XML format

Visit the Regulatory Compliance pages at UNICOM Engineering at <http://www.unicomengineering.com/services/regulatory-compliance#ipc> for more information and instruction on using *The IPC Generator Tool*.

5.3.5. Supplier's Form or Statement

Any declaration form or statement originating with the Supplier shall be considered a legally binding document. Supplier declarations should be available in the reader's language, and must include:

- a) Manufacturer's name
- b) Manufacturer contact information
- c) Contact email address
- d) Reference to the RoHS Directive including version/year of release

- e) Assertion of how the product complies (e.g., “Compliant”, “Compliant with Exemptions”, or “Non-Compliant”) with the Directive
- f) A list of every exemption taken if “Compliant with Exemptions”
- g) Date of Declaration
- h) Certifier name or legally binding signature on behalf of the organization.

5.4 Submitting Certificates of Compliance

Supplier agrees to provide RoHS compliance documentation:

- a) If requested by UNICOM Engineering at time of order;
- b) Upon initial delivery of a part to UNICOM Engineering per purchase order (PO);
- c) At the time a replacement or revised product is supplied to UNICOM Engineering for an existing PO;
- d) Periodically upon request. UNICOM Engineering regularly monitors new release of or updates to Regulations and will contact our Suppliers for compliance updates. Suppliers agree to provide compliance updates promptly at the request of UNICOM Engineering.

Email RoHS questions or inquiries, forms, information and declaration responses to:
Regulatory.Compliance@unicomengineering.com.

6. REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals)

For product applicability, see **Table 3 – Applicability**, Pg. 8.

6.1 Description

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals, EC 1907/2006) is the European Union’s regulatory framework for chemical substance management, adopted to help protect human health and the environment from chemical “Substances of Very High Concern” (SVHC). The first version of substances on its SVHC ‘candidate list’ was released in October 2008, with new substances being added approximately twice a year thereafter. The goal of REACH is to improve the protection of human health and environment from the risks that can be posed by chemicals, while enhancing the competitiveness of the EU chemicals industry.

The regulation impacts a wide range of companies including and beyond the chemical industry. Under the REACH regulation, all manufacturers and importers of articles must assess and communicate the presence of any SVHC in the items they produce and market, shifting the responsibility for managing risk up and down the supply chain.

6.2 Supplier Expectations – REACH

UNICOM Engineering expects its Suppliers to understand and comply with REACH. Suppliers must pre-register or register their substances or preparations as required by the Regulation.

Suppliers must assess whether the products and parts they supply UNICOM Engineering contain any of the latest substances classified as SVHC in a concentration above 0.1%. If so, the Supplier will communicate this information to UNICOM Engineering.²

6.3 Substances of Very High Concern (SVHC)

UNICOM Engineering does not add any listed SVHC during the integration of articles for our finished products. Instead, we rely on our Suppliers to provide us the most current SVHC data for the articles they supply us.

View the latest list of authentic REACH SVHC (“Candidate List”), at <http://echa.europa.eu/candidate-list-table>. This list is subject to change and update by the European Chemicals Agency (ECHA).

Suppliers shall notify UNICOM Engineering of any SVHC present above threshold by providing (at least) the information indicated in Table 4, below:

² If a substance is present in those articles in quantities totaling over 1 metric ton per year, Supplier must also communicate this information to the European Chemical Agency.

Table 4 – Reporting SVHC

Substances of Very High Concern (SVHC)		
Part Number or Part Group	Substance (SVHC) Name	CAS Number

For additional information about ECHA, visit the European Chemical Agency (ECHA) website at <http://echa.europa.eu/>.

6.4 REACH Reporting Formats

Supplier agrees to report REACH compliance for their product to UNICOM Engineering in one of the acceptable formats outlined below. All formats require the identification of any SVHC present over threshold in the product(s).

6.4.1. IPC (API or XML) format.

Visit Regulatory Compliance pages at UNICOM Engineering at <http://www.unicomengineering.com/services/regulatory-compliance#ipc> for more information and instruction on using the IPC Generator Tool.

For additional information about the IPC generator tool, visit Total Parts Plus (TPP) at <https://home.totalpartsplus.com/products-landing/>

6.4.2. MDDS – Material Declaration Data Sheet

Material disclosure that calls out compliance to EU REACH regulation, identifying any SVCH by Name, CAS and % by mass.

6.4.3. Supplier’s Form or Statement

Any declaration form or statement originating with the supplier shall be considered a legally binding document. Supplier declarations should be available in the reader’s language and must include:

- a) Manufacturer’s name and contact information;
- b) Reference to the REACH Directive including version or date of release
- c) Table of all SVHCs present over threshold plus CAS number (example: Table 4 above) in the product(s)
- d) Date
- e) Certifier Name or legally binding signature on behalf of the organization

6.5 Submitting Certificates of Compliance

Supplier agrees to respond promptly to update requests from UNICOM Engineering.

Supplier agrees to provide REACH Compliance documentation:

- a) Upon request at time of order by UNICOM Engineering;
- b) Along with initial delivery of a part to UNICOM Engineering per purchase order (PO);
- c) At the time a replacement or revised product is supplied to UNICOM Engineering for an existing PO;
- d) Periodically upon request. UNICOM Engineering regularly monitors new release of or updates to Regulations, and will contact our Suppliers for REACH declaration updates. The periodicity of the request will be determined by the Compliance Manager at UNICOM Engineering.

Email your REACH questions or inquiries, forms, information and responses to UNICOM Engineering at Regulatory.Compliance@unicomengineering.com

For additional information about REACH and reporting REACH to UNICOM Engineering, visit the REACH section on our Regulatory Compliance site at <http://www.unicomengineering.com/services/regulatory-compliance#reach>

7. California Proposition 65

For product applicability, see **Table 3 – Applicability**, Pg. 8.

7.1 Description

The Safe Drinking Water and Toxic Enforcement Act of 1986, known as California Proposition 65 (“Proposition 65”) is administered by the Office of Environmental Health Hazard Assessment (OEHHA) of the California Environmental Protection Agency (CalEPA). Proposition 65 requires the State of California to publish a list of chemicals known to cause cancer or birth defects or other reproductive harm.

Effectively, Proposition 65 requires businesses to notify Californians about significant amounts of chemicals in the products they purchase for their homes or workplaces, or that are released into the environment. Businesses are required to provide a clear and reasonable WARNING before knowingly and intentionally exposing anyone to a listed chemical, unless that business can show that the anticipated exposure level will not pose a significant risk of cancer, or is significantly below levels observed to cause birth defects or other reproductive harm.

UNICOM Engineering does not add chemicals during the integration of articles for our finished products. Instead, we rely on our Suppliers to understand and comply with the warning label requirements of Proposition 65.

7.2 Supplier Expectations – Proposition 65 Chemical List

Supplier shall assess whether the products and parts they supply UNICOM engineering contain any of the chemicals on the Proposition 65 chemical list.

View the most recent list of chemicals of concern to Proposition 65 at <https://oehha.ca.gov/proposition-65/proposition-65-list>

7.2.1. Listed chemicals are PRESENT

Suppliers shall provide the appropriate warning terminology to UNICOM Engineering for the product.

See example below:

“WARNING: This product can expose you to chemicals including [name of the chemical], which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.”

7.2.2. Listed chemicals are NOT PRESENT

Suppliers will provide UNICOM Engineering a prepared California Proposition 65 declaration or can simply email a statement to us indicating why a warning label is not required.

See example below:

“Proposition 65: Rack servers are closed chassis with no external cables; if there are no external cables or power supply, then there is no exposure pathway for the CA Prop 65 substances and a warning label is not required.”

7.3 Submitting a Supplier Statement

Any email or statement regarding California Proposition 65 originating with the Supplier shall be considered a legally binding declaration. Supplier declarations should be available in the reader’s language and must include:

- a) Manufacturer’s name and contact information
- b) Reference to Proposition 65
- c) Clear indication to UNICOM Engineering when chemicals are present of how the product shall be labelled, OR
- d) Statement of why a warning label is NOT required
- e) Date

For additional information about Businesses and California Proposition 65, visit <https://oehha.ca.gov/proposition-65/businesses-and-proposition-65>

GOVERNANCE

8. Conflict Minerals

For product applicability, see **Table 3** – Applicability, Pg 8.

8.1 Description

All US public companies meeting the criteria of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Section 1502(b)), are required annually to report certain rare earth minerals contained in products they manufacture or contract to manufacture. This law is aimed at dissuading companies from continuing to engage in trade that supports regional conflicts.

One area of global concern is the Democratic Republic of the Congo (DRC) and its adjoining countries (“Covered Countries”). Some mining operations in the Covered Countries are controlled by warring militias who use profits from the sale and trade of certain rare earth minerals to finance violent ongoing, armed conflict the United Nations has linked to human rights violations, labor abuses and environmental degradation. Four of these minerals (tantalum, tin, tungsten and gold) commonly referred to as **3TG** have been used in electronics.

In August 2012, as required by Section 1502 of the Dodd-Frank Act, the U.S. Securities and Exchange Commission adopted Rule 13(p)(1) under the Securities Exchange Act. This Rule requires all public companies annually to report any 3TG contained in products they manufacture or contract to manufacture to the extent 3TG is necessary for the functionality or production of their products.



8.2 UNICOM Engineering Conflict Free Minerals Policy

Review the UNICOM Engineering Conflict Free Minerals Policy statement on our Regulatory Compliance pages at <http://www.unicomengineering.com/services/regulatory-compliance#conflict>

8.3 Supplier Expectations – Conflict Minerals

As a system integrator, UNICOM Engineering does not directly source 3TG from mines, smelters or refiners and is several levels removed from manufacture involving 3TG minerals. Instead, we expect our suppliers to help us fulfill the supply chain obligations of the Dodd-Frank legislation.

In addition, UNICOM Engineering expects suppliers to implement controls on their own supply chains so they are able to provide us this information to demonstrate that any 3TG in the parts we purchase from them are “conflict free.”

On a scheduled basis, UNICOM Engineering will request Suppliers to provide a Conflict Minerals declaration. The periodicity of the request will be determined by the Compliance Manager at UNICOM Engineering.

Supplier/OEM agrees to respond promptly to update requests from UNICOM Engineering.

8.4 Conflict Minerals Reporting Formats

8.4.1. Conflict Minerals Reporting Template (CMRT)

Suppliers are instructed to complete the latest Conflict Minerals Reporting Template (CMRT) released by the Responsible Minerals Initiative (RMI).

For a link to the latest CMRT with instruction and additional information about the Conflict Free initiative, see the Regulatory Compliance pages of the UNICOM Engineering site at <http://www.unicomengineering.com/services/regulatory-compliance#conflict> or visit the Responsible Minerals Initiative directly at <http://www.responsiblemineralsinitiative.org/conflict-minerals-reporting-template/>

Download and complete the latest Conflict Minerals Reporting Template (CMRT) to declare any 3TG minerals, country of origin, smelters and refiners.

8.4.2. Conflict Minerals Disclosure Statements

Any declaration form or statement other than a CMRT and originating with the Supplier or OEM shall be considered a legally binding document.

Company-wide or SEC Disclosure Statements are acceptable if they are available in the reader's language and include:

- a) Manufacturer's name
- b) Manufacturer contact information
- c) Contact Email Address
- d) Reference to the Conflict Minerals (or Responsible Minerals Initiative) Directive
- e) Assertion that the company or product complies with the Directive
- f) Statement of which 3TG minerals if any are necessary for the manufacture of the product
- g) Statement of which 3TG if any are added to the product
- h) Working URL to Supplier's current Conflict Minerals Sourcing Policy (if available)
- i) List or appendix of all identified smelter names and CID numbers
- j) Date of Declaration
- k) Certifier Name or legally binding signature on behalf of the organization.

8.5 Submitting CMRT or Conflict Minerals Statement

On a scheduled basis, UNICOM Engineering will request Suppliers to provide a Conflict Minerals declaration. The periodicity of the request will be determined by the Compliance Manager at UNICOM Engineering.

Supplier/OEM agrees to respond promptly to update requests from UNICOM Engineering.

Return a copy of the completed CMRT or Supplier statement(s) to the Compliance Manager or Compliance Specialist in Regulatory Compliance for our records, or submit a copy to Regulatory.Compliance@unicomengineering.com.

PACKAGING AND PACKING MATERIALS

9. Packaging Directive

For product applicability, see **Table 3** – Applicability, Pg 8.

The Packaging and Packaging Waste Directive, EU (94/62/EC) and its amendments³ (hereafter “Packaging Directive”) set forth measures and deadlines across EU Member States (as well as third countries) which aim to reduce packaging waste and target the impact of packaging waste disposal on health and the environment.⁴

9.1 Description

The measures outlined within the Packaging Directive aim to (1) prevent the production of packaging waste, and (2) encourage reuse, recycling, and other forms of packaging waste recovery to finally reduce the disposal of such waste.

The Directive promotes the recycling of packaging waste and requires the marking of packaging with an appropriate recycle category. It also limits the total concentration of four heavy metals (lead, mercury, cadmium, and hexavalent chromium) in packaging materials to less than 100 ppm by weight.

All packaging placed on the EU market and all packaging waste, whether it is used by or released at the industrial, commercial, office, shop, service, household or other location level, is covered by the Packaging Directive.

To learn more about the European Commission Packaging and Packaging Waste Directive 94/62/EC and its amendments, visit http://ec.europa.eu/environment/waste/packaging/index_en.htm

9.2 Supplier Expectations – Packaging

UNICOM Engineering expects Suppliers of packaging and packing materials (whether sales, group or transport packaging, or packaging accessories), to understand and comply with the requirements detailed in this Specification.

Suppliers agree to report product compliance to UNICOM Engineering in an acceptable format and promptly upon request.

For additional information about UNICOM Engineering and the Packaging Directive, visit Regulatory Compliance at UNICOM Engineering, at <http://www.unicomengineering.com/services/regulatory-compliance#packaging>

9.2.1. Packaging Fabricated to Mechanical Drawing

Although packaging and packing materials are manufactured according to a mechanical drawing, certificates of compliance by the Supplier are still required to cover constituency of the materials used in the manufacturing process or fabrication of the product.

Any packaging or packing material produced following a UNICOM Engineering mechanical drawing shall comply with expectations for packaging and packing materials detailed in the Mechanical Requirements **Section 10.1** of this specification.

9.2.2. Pre-fabricated packaging

Pre-fabricated packaging shall also conform to the Mechanical Requirements **Section 10.1** of this Specification for markings, cautionary markings, ESD markings, and compliance to the Packaging Directive and environmental regulations.

9.2.3. Concentration Levels of Heavy Metals in Packaging

To comply with the Packaging Directive, all packaging and packing materials whether pre-fabricated, or manufactured or fabricated following a UNICOM Engineering mechanical drawing must contain no more than the maximum concentration values below, tolerated by weight in homogeneous materials:

- Lead (0.1%)
- Mercury (0.1%)

³ Directive (EU) 2015/720 of the European Parliament and of the Council amended Directive 94/62/EC on 29 April 2015, as regards to reducing the consumption of lightweight plastic carrier bags.

⁴ The Packaging and Packaging Waste Directive cross-references the European Parliament and Council 75/442/EEC general directive on waste (replaced by Directive 2006/12/EC and amended with Directive 2008/98/EC).

- Cadmium (0.01%)
- Hexavalent chromium (0.1%)

The sum of concentration levels of lead, cadmium, mercury and hexavalent chromium present in packaging or packaging components shall NOT exceed 100 ppm by weight.

10. Mechanical Drawings - Packaging and Packing Materials

The UNICOM Engineering mechanical drawing will reference this Specification (502-1063-00). The manufacture or fabrication of packaging or packing materials per UNICOM Engineering drawing therefor implies the Supplier has complied with this Specification and the details of its Mechanical Requirements Section.

10.1 Mechanical Requirements for Packaging Materials

Reference: Packaging Directive 94/62/EC, as amended by Regulation (EC) No. 1882/2003, Directive 2004/12/EC and 2005/20/EC

10.1.1. Material Markings

Markings according to 97/129/EC are voluntary but use is encouraged.

Table 5 - Material Markings

Material	Abbreviations	Numbering
Plastics		
Polyethylene Terephthalate	PET	1
High Density Polyethylene	HDPE	2
Polyvinyl Chloride	PVC	3
Low Density Polyethylene	LDPE	4
Polypropylene	PP	5
Polystyrene	PS	6
Paper and fiberboard		
Corrugated fiberboard	PAP	20
Non-corrugated fiberboard	PAP	21
Paper	PAP	22
Metals		
Steel	FE	40
Aluminum	ALU	41
Wood		
Wood	FOR	50
Cork	FOR	51
Textile		
Cotton	TEX	60
Jute	TEX	61
Glass		
Colorless glass	GL	70
Green Glass	GL	71

Material	Abbreviations	Numbering
Brown Glass	GL	72
Composites		
Paper and fiberboard/miscellaneous metals	*	80
Paper and fiberboard/plastic	*	81
Paper and fiberboard/aluminum	*	82
Paper and fiberboard/tinplate	*	83
Paper and fiberboard/plastic/aluminum	*	84
Paper and fiberboard/plastic/aluminum/tinplate	*	85
Plastic/aluminum	*	90
Plastic/tinplate	*	91
Plastic/miscellaneous metals	*	92
Glass/plastic	*	95
Glass/aluminum	*	96
Glass/tinplate	*	97
Glass/miscellaneous metals	*	98

**C plus abbreviation corresponds to the predominant material*

10.1.2. Cautionary Markings

The following tables depict the various symbols used on shipping cartons.

Table 6 - Mandatory on All

 <p>>25 kg >55 lbs</p>	<p>The EU Directive 90/269/EEC does not specify the weight directly, the values here are common. Intent is to identify a heavy object.</p> <p>OSHA requirements are similar and typically translated to state regulations.</p>
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Table 7 – Optional or per Customer Request

 This End Up	No regulatory requirement.
 Keep Dry	No regulatory requirement.
 Fragile	No regulatory requirement.
 Corrugated Recycle	Some customers request that symbol be applied to shipping cartons to encourage its recycling. It should be applied as requested.
 ESD Sensitive Note: Yellow background color is optional (is NOT mandatory)	Mandatory use <u>when requested</u> . Often accompanied by the following texts: CAUTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES DO NOT OPEN EXCEPT AT APPROVED STATIC-FREE WORKSTATION DO NOT SHIP OR STORE NEAR STRONG ELECTROSTATIC, ELECTROMAGNETIC, MAGNETIC OR RADIOACTIVE FIELDS

10.2 Packaging Declaration (Certificate of Compliance)

Suppliers agree to declare packaging products using one of the following acceptable formats, and to provide future compliance updates promptly when requested by UNICOM Engineering.

Any declaration form or statement provided by or originating with the supplier shall be considered a legally binding document.

10.2.1 Substances of Concern

Any declaration shall contain a statement attesting the combined weight of packaging and packing components contains less than 100 ppm by weight ($\leq 0.1\%$ w/w) of lead, mercury, cadmium, and hexavalent chromium.

10.2.2 Weights and materials

Declaration shall indicate the weight of materials used in grams. For materials of concern, reference the Materials and Measures table of the Packaging Declaration available from UNICOM Engineering at: <http://www.unicomengineering.com/services/regulatory-compliance#packaging>

10.2.3 Packaging Declaration Format(s)

Supplier agrees to declare Packaging for their product to UNICOM Engineering in one of the acceptable formats outlined below.

10.2.3.1 Manufacturer Certificate of Compliance

Certificates originating with the OEM are acceptable if they are available in the reader's language and include:

- a) Manufacturer's name
- b) Manufacturer contact information
- c) Contact Email address
- d) Reference to the Packaging Directive
- e) Assertion that the product complies to this Specification or to the named Packaging Directive
- f) Attestation regarding substances of concern (see **Section 10.2.1**)
- g) List of Materials and Measures (see **Section 10.2.2**)
- h) Date of Declaration
- i) Certifier Name or legally binding signature on behalf of the organization.

10.2.3.2 Packaging Declaration form (496-0107-00) from UNICOM Engineering

Download a Packaging Declaration form provided by UNICOM Engineering at: <http://www.unicomengineering.com/services/regulatory-compliance#packaging>

10.3 Submitting Certificates of Compliance

Supplier agrees to only provide packaging and packing materials in conformance to this Specification, and to provide certificates declaring compliance to the Packaging Directive:

- a) At the request of Mechanical Engineering or the Compliance Specialist at UNICOM Engineering;
- b) If requested by UNICOM Engineering at the time of order placement;
- c) Upon initial delivery of a part to UNICOM Engineering per purchase order (PO);
- d) At the time a replacement or revised product is supplied to UNICOM engineering for an existing PO;
- e) Periodically upon request.

Return certificates declaring conformance to the Packaging Directive upon request to the Compliance Manager, Compliance Specialist or Mechanical Engineer at UNICOM Engineering, or submit declaration(s) to Regulatory.Compliance@unicomengineering.com.