INNIO-TRS002 Supplier Compliance Requirements – Declaration of Hazardous and Regulated Substances & Materials

Document Revision Chart

#.#	Section Modified and Revision Description	Date	Author
0.0	Initial Release	Nov 5, 2015	R Haimour
2.0	Corrected form number to F-2206	Jan. 8, 2016	R. Haimour
3.0	Rebranded as INNIO	Dec. 10, 2018	S. Rutherford

1.0 Purpose

This documents established INNIO Reciprocating Engines requirements for its suppliers with regard to regulatory compliance, bans and restrictions for hazardous substances.

2.0 Scope Definition

2.1 This document establishes INNIO's requirements for its suppliers both Internal and external with regard to the use and documentation of hazardous and/or regulated substances in products and materials supplied to INNIO. The requirements support INNIO's commitment to regulatory compliance, safe products, protection of the environment/human health and customer satisfaction.

2.2 This document applies to all suppliers of products, assemblies, materials, parts, and packaging for INNIO Engines.

2.3 This document will be reviewed on a periodic basis and necessary revisions will be implemented to ensure that these requirements remain relevant to current regulatory compliance requirements for prohibited and restricted substances. Documentation completed using earlier versions of this document remain valid unless new data or their reissuances is specifically requested by INNIO.

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2.4 Communication

2.4.1 INNIO Reciprocating Engines Sourcing (INNIO Jenbacher, Waukesha and Welland Sites) is the authorized interface for all communication between INNIO and the Supplier. All questions or requests for additional information shall be submitted to Sourcing for clarification. Conflicts between applicable Specifications and/or drawings shall be submitted to Sourcing for resolution by Engineering.

2.4.2 As per the Mutual Non-Disclosure Agreement (MNDA), all suppliers' information is held in confidence between INNIO and the respective Supplier. All INNIO information shall be held in confidence by the supplier.

3. APPLICABLE DOCUMENTS

3.1 The following documents shall form a part of this specification to the extent specified here in. Unless otherwise indicated, the current revision shall apply.

3.1.1 INNIO

Supplier Quality Requirements SQR-0001

Design Requirements for Regulated Materials & Chemicals

3.1.2 Other

EU Restriction of Hazardous Substances - Directive 2011/65/EC (RoHS Directive)

Registration, Evaluation, Authorization, and Restriction of Chemical Substances EU Directive 1907/2006 (REACH Directive)

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EU Battery Directive: Directive 2006/66/EC

EU Commission recommendation on the definition of nanomaterial

4. DEFINITIONS

4.1 Personnel

4.1.1 Purchaser - INNIO Reciprocating Engines or its Business Associate

4.1.2 Supplier - As used herein, unless specifically designated, refers to a corporation, company, partnership, sole proprietorship or individual, or any INNIO Business Manufacturing Department, engaged to perform the process covered by this Specification.

4.2 Technical Definitions

4.2.1 EEE - Electrical and Electronic Equipment. In the context of this document it refers to EEE that is within the scope of the EU waste electrical and electronic equipment Directive 2002/96/EC and/or the restriction of the use of certain hazardous substances in electrical and electronic equipment EU Directive 2002/95/EC.

4.2.2 Engineered Nanomaterials - Engineered nanomaterials are those which have been manufactured to have at least one dimension between approximately 1 and 100 nanometers (nm); including but not limited to nanoparticles, nanofibers, nanopowders, nanotubes and nanowires, generically referred to as nano-objects, as well as aggregates and agglomerates of these materials. This includes a wide range of surface chemistries and applications.

4.2.3 Impurity - residual quantities of substances that are unintentionally

present in raw materials or are by-products of the manufacturing process.

4.2.4 Ingredient - any substance intentionally used or added in the formulation of a material or used in the manufacture of a component or part to impart specific characteristics or function.

4.2.5 Material - any substance or homogeneous mixture of substances

4.2.6 Packaging - refers to materials or product used for the containment of goods for the purposes of transportation, marketing, protection or handling and includes a unit package, an intermediate package and a shipping container.

4.2.7 Part - any functional unit comprised of one or more mechanical or electrical components.

4.2.8 Spare parts - any part made available for replacement of like parts in existing supplied equipment or assemblies.

5. GENERAL REQUIREMENTS

5.1 Supplier Responsibilities

5.1.1 Shall declare to and certify compliance with the requirements of this specification using methods as prescribed by INNIO. Suppliers shall submit such declaration at their initial qualification to supply any product, part or material to INNIO, and must update the declaration when there is a change in the design or specification of an item, at the request of INNIO and at least every 5 years.

5.1.2 Shall retain information and/or data to demonstrate compliance with

this specification including but not limited to the INNIO or supplier part number, part or material description, substance or substances disclosed, substance percentage used by weight, supplier/manufacturer certificates of compliance of components and materials, results of analysis and analytical source where applicable, and the name of a responsible person.

5.1.3 Shall provide, upon request to INNIO and/or authorized third parties responsible for verification, copies of the aforementioned information as well as any other applicable supporting compliance documentation.

5.2 **Supplier Certifications / Declarations**

Suppliers shall provide INNIO a declaration, including specified additional information for the regulated materials and/or substances as summarized below, using a method prescribed by INNIO. Any Declarations of Conformity (DoC) needed to comply with laws and/or regulations applicable to the product, part, material, packaging or commodity shall also be provided to INNIO.

5.3 **Material/Substances Prohibitions and Restrictions** - Supplier shall meet and certify to the *Prohibited/Restricted Substances in INNIO products, parts, materials, accessories and packaging as listed in Table A1 of Appendix A.*

5.4 **RoHS Substances and Applicability** - For all EEE, the Supplier shall indicate the presence of any RoHS regulated substance as defined in the latest revision of EU Directive 2011/65/EC for EEE items supplied to INNIO. Where the EEE is being supplied for use in the EU/EEA or where INNIO has specified the use of CE as the product conformance scheme, the Supplier shall declare if the EEE is subject to the EU RoHS directive and if subject to the directive, issue a CE DoC stating compliance to that directive.

5.5 **REACH SVHC** - Suppliers are required to declare the absence or presence of EU REACH Substances of Very High Concern (SVHC) using the current SVHC list published on the European Chemical Agency (ECHA) web site.

5.6 **Engineered Nano Materials** - Suppliers shall declare the use of an engineered nano material as defined in Section 5.5

5.7 **Batteries** - Supplier shall declare where batteries are incorporated into supplied products or equipment. The Supplier shall certify that any supplied battery conforms to the substance concentration limits defined in Appendix A, Table 2.

To safely and efficiently prepare battery shipments in compliance with international air transport regulations, please refer to International Air & Transportation Association (IATA) www.iata.org or your preferred carrier web site.

5.8 **Radioisotopes** - Supplier shall certify to the presence or absence of radioisotopes/radioactive materials, in parts, assemblies or finished products they sell to INNIO.

6. DOCUMENTATION REQUIREMENTS

6.1 General instructions for completing the Declaration

- Declarations will be submitted when required electronically. The attached forms in Appendix B illustrate the information to be provided. All shaded Supplier information and question fields on the forms will require answers.
- Complete a separate form for each supplied item identified by a INNIO part number or other unique identifier. Provide a declaration for all

materials, parts, assemblies or complete products provided to INNIO, even if the items are manufactured by another.

- Any claimed exemption or exclusion must be specifically identified in on the certification/declaration form. Evidence demonstrating such claim may be requested by INNIO.
- Each Declaration and required data submitted must be completed by an authorized representative of the Supplier and identified on the form.

6.2 Instructions - Declaration of substances specified in Appendix A - Table A1 - For each item being supplied, the Supplier shall certify to the absence (non use) or presence (use) of any of the individual substances or a category of substances (e.g. Asbestos, cadmium or mercury compounds…).

Although Table 1A is a condensed list, INNIO suppliers are responsible and shall meet to all Prohibited/*Restricted Substances in INNIO products, parts, materials, accessories and packaging.* For complete list of prohibited/restricted chemicals, please refer to Design Requirements for Regulated Materials & Chemicals Table 1 (p 8-18)

For each item identified as containing a substance or substance category from Table A1, the Supplier shall provide the following additional information –

- Specify each substance present by name and CAS number
- Quantity or weight percent in the item
- Location (where used) of the substance in the item

6.3 Instructions - RoHS Certification - Declare if the item supplied is electrical or electronic equipment or component. Where a Supplier indicates that they are supplying electrical or electronic equipment (EEE) as defined in this specification, the following questions must be answered and/or information provided:

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- For assemblies; list all applicable spare part and components by a INNIO or a Supplier part number where there is no INNIO part number available.
- Indicate if the EU RoHS directive applies to each of the EEE items being supplied. If answered yes, then attach a copy of the current CE Declaration of Conformity indicating compliance to the EU RoHS directive.
- If claiming an exemption to EU RoHS Directive for a product, part or spare part that is EEE, select the applicable exemption number from the list provided in Annex III of the EU RoHS Directive (2011/65/EU) and enter it under the exemption heading on the form.
- For all EEE, supplier shall declare the presence of any RoHS regulated substance above the threshold concentration as defined in Annex II of the current revision of EU Directive 2011/65/EC. If a RoHS substance is present the Supplier shall identify the substance, the location (where used) and the concentration (by weight).

    - *Note: INNIO expects that an assembly supplier will have certificates of compliance, from their component suppliers and be able to provide those component certification documents (including suitable letters/analysis/information) immediately upon request by INNIO.*

6.4 Instructions for completing EU REACH SVHC - EU REACH Regulation 1907/2006 designate certain chemicals as "Substances of Very High Concern" (**SVHC)**. INNIO sources materials, components, parts and materials, and sells products globally and requires that each supplier declare if any of these substances are in items they supply, including those manufactured by others. The current table of REACH Substances of Very High Concern, organized by chemical identifier numbers and chemical names can be accessed at the ECHA website:

http://www.echa.europa.eu/chem_data/candidate_list_table_en.asp[echa.europa.eu]

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- For each supplied item (by INNIO part number), and for part supplied as a spare part to this part (identified by either INNIO or Supplier part number - where there is no INNIO part number) :
  - Declare if any SVHC is present at greater than 0.1% by weight for each item and /or spare part supplied
  - For each SVHC present, provide its CAS number and the actual weight percent of the SVHC in the item.
  - Where one or more SVHC is present in an item above the 0.1% by weight threshold concentration, the Supplier must provide a customer communication to INNIO meeting the requirements of Article 33 of the EU REACH Regulation when the Supplier located in the European Union.

6.5 Engineered Nano Materials - Supplier shall declare to the presence (use) of nano materials (as defined in Section 3.0 - Definitions) in the materials, parts, assemblies or finished products they sell to INNIO. Where these materials are declared present, additional information must be provided including the trade name or description of the material, CAS# (as applicable), location in the part/product, and nominal weight percent.

6.6 Battery declaration/certification - Supplier must provide the following information regarding batteries supplied internal to a product, assembly or part, or as supplied individually, for each item (INNIO part Number).

- Is it an internal Battery and Indicate if it is removable/replaceable
- Specify the weight and chemistry of each individual battery
- For each identified battery either internal or supplied direct indicate if it conforms to the substance concentration limits for lead, mercury and cadmium for the battery type as defined in Table A2, in Appendix A.
- Additional information is required for Lithium metal or ion batteries

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6.7 Identification of radioisotopes/radioactive materials - The Supplier shall declare to the presence or absence of radioisotopes in the materials, parts, assemblies or finished products they sell to INNIO. If the Supplier knows or is unsure if the presence of a radioactive isotope has not been previously declared to INNIO, the supplier shall immediately inform the buyer as to its presence. Regardless, the supplier shall provide the additional detailed information requested on Form B, in addition to completion of Form A.
The declaration shall include isolated natural radioisotopes, man-made or residual naturally occurring radioisotopes, regardless of form or amount present.
If declared present; The Supplier shall identify each effected item by its INNIO part number, and identify the isotope, the quantity in (Becquerels), the location (where used) in the part or assembly, and the isotope's physical state; gaseous, solid, liquid shall be identified. If the radioactive material is in a component of an equipment or assembly that is available as a spare part, which is not identified in INNIO's parts listing, the Supplier must identify that component/part on Form B using the INNIO's, supplier's or OEM's part number and a description.

APPENDIX A

Table A1. Prohibited/Restricted Substances in INNIO products, parts, materials, accessories and packaging.

The substances/substance categories listed in Tables A1 shall not be used as ingredients in any material or part provided to INNIO for use in equipment, or in spare parts for use in products, or in accessories, or in packaging except as defined by

specific qualification or exemptions. Suppliers must attest that these substances are not present.

Substance	Application	References
Asbestos and asbestos containing materials	Shall not be an ingredient or used in any application.	Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC*, Marketing and Use of Dangerous Substances and amendments: (83/478/EEC; 85/610/EEC; 87/217/EEC; 91/659/EEC; 99/77/EEC). United States: Toxic Substances Control Act (restricts new uses);
Benzene	Shall not be an ingredient, or present as an impurity in concentrations ≥0.1% by weight.	Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances, Blue Angel Eco-Logo
Cadmium and its compounds	Shall not be an ingredient in **non-electronic/electrical products and accessories, or in packaging:** including but not limited to use as pigment, dye, or stabilizer in concentrations greater than 0.01% by weight. Corrosion protection coating, or in paint In **packaging**: the sum of the concentration levels of incidentally introduced lead, cadmium, mercury and hexavalent chromium must be less than 100 parts per million.	Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (91/338/EEC, 2006/66/EC, 93/86/EEC); 2002/95/EC (EU/RoHS Directive and its amendments) ; China Management Measures on EIP Pollution Control; EU Packaging & Packaging Waste Directive 94/62/EC Article 11

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Substance	Application	References
Cobalt Dichloride (7646-79-9)	Shall not be an ingredient in concentrations greater than 0.1% by weight in products, parts or packaging.	EU REACH 1907/2006, formerly amendment 2001/90/EC of 76/769/EEC, Marketing and Use of Dangerous Substances
Dimethyl fumarate (DMF)	Shall not be an intentionally added ingredient.	2009/251/EC
Fluorinated Greenhouse Gases (PFC, SF6, HFC (6 or fewer carbon atoms)	Shall not be an intentionally added ingredient in non-refillable containers and non-confined direct evaporation systems containing refrigerants. Shall meet all requirements of EC 842/2006.	EC No 842/2006
Hexachlorobenzene	Shall not be an intentionally added ingredient.	INNIO Requirement Canada -
Hexavalent Chromium and its compounds	In **packaging**: the sum of the concentration levels of incidentally introduced lead, cadmium, mercury and hexavalent chromium must be less than 100 parts per million. Shall not be used in corrosion resistant paints or coatings unless authorized.	2002/95/EC (EU RoHS Directive and its amendments); China Management Measures on EIP Pollution Control; EU Packaging & Packaging Waste Directive 94/62/EC Article 11
Hydrazine	Shall not be an intentionally added ingredient.	Annex VI of Regulation (EC) 272/2008 on classification, labeling and packaging of substances and mixtures (CLP).
Lead and its compounds	Banned from use in paints or as a stabilizer in concentrations greater than 0.01% by weight.	Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances and amendments:

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Substance	Application	References
	In **packaging**: the sum of the concentration levels of incidentally introduced lead, cadmium, mercury and hexavalent chromium must be less than 100 parts per million.	(86/677/EEC, 2006/66/EC, 93/86/EEC); 2000/53/EC 2002/95/EC (EU/RoHS Directive and its amendments), China Management Measures on EIP Pollution Control; EU Packaging & Packaging Waste Directive 94/62/EC Article 11;
Mercury and its compounds	Must be less than 0.1% by weight in any homogeneous material of any product, component or equipment. **In packaging**: the sum of the concentration levels of incidentally introduced lead, cadmium, mercury and hexavalent chromium must be less than 100 parts per million. In **batteries**: banned in concentrations ≥0.0005% by weight In **button batteries**: banned in concentrations >2% by weight	Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances and amendments:(86/677/EEC, 2006/66/EC, 98/101/EEC; 2002/95/EC)(EU/RoHS Directive and its amendments); EU Battery Directive 2006/66/EC; EU Packaging & Packaging Waste Directive 94/62/EC Article 11
Ozone Depleting Substances (ODS)	Supplier shall not incorporate an Ozone Depleting Substance (ODS) as defined by the Montreal Protocol and the US Environmental Protection Agency Clean Air Act Amendments of 1990 in the	List of ODS' available at http://www.epa.gov/ozone/ods.html

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Substance	Application	References
	product, part, or commodity provided to INNIO.	
Pentachlorophenol	Shall not be an intentionally added ingredient. Prohibited in the treatment of wood use in **Packaging**	Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances with amendment,1999/51/EC
Perfluorooctane sulfonate (PFOS) and its salts Perfluorooctanoic acid (PFOA) and its salts	Shall not be an intentionally added ingredient in preparations in concentrations of ≥ 0.005% by weight. Shall not be an intentionally added ingredient in semi-finished products or articles, or parts at concentrations ≥ 0.1% by weight calculated with reference to the mass of structurally or Microstructurally distinct parts.	Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances and amendment 2006/122/EC: http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:372:0032:0034:EN:PDF Canadian Environmental Protection Act, P.C. 2008-974 INNIO Requirement
Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis (1,1-dimethylethyl)-(CAS# 3846-71-7)	Shall not be an intentionally added ingredient.	Japanese law
Polychlorinated Biphenyls (PCBs)	Shall not be intentionally added ingredients.	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law),

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Substance	Application	References
		Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances with amendment 85/478/EEC
Polychlorinated Napthalenes (more than three chlorine atoms)	Shall not be intentionally added ingredients.	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law).
Polychlorinated terphenyl (PCTs)	Shall not be intentionally added ingredients.	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law), Annex XVII of EU REACH 1907/2006, formerly 76/769/EEC, Marketing and Use of Dangerous Substances with amendment 85/478/EEC.
Polyvinyl chloride (packaging)	Shall not be used for plastic packaging items or materials	INNIO Requirement
Tin Compounds as: Trisubstituted organostannic compounds: (includes tributyl tin (TBT) and triphenyl tin (TPT) Tributyl Tin Oxide (TBTO) Dibutyl Tin (DBT) compounds Dioctyl Tin (DOT) compounds	Shall not be intentionally added ingredients.	Commission Decision 2009/425/EC The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 2 chemical substances: Japanese law); Class 1 chemical substances Japanese law and REACH candidate list -TBTO)

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Substance	Application	References
		Amendment to EU Directive 76/769/EEC, effective 2012. Annex XVII of EU REACH 1907/2006

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Table A2. Battery Content Restrictions

Battery Type	Restrictions
All Battery Types, including accumulators.(Some battery types have more restrictive substance levels; see following entries on this table)	• No intentionally-introduced mercury • ≤ 0.0005% mercury by weight. Button cell batteries, and batteries composed of button cell batteries, with a mercury content of no more than 2% by weight are exempt .[1,6] • ≤ 0.002% cadmium by weight (Note the lower cadmium restrictions for some battery types below).[1] • Only battery types which are exempted from all hazardous materials transport regulations (surface and air), i.e., not classified as a hazardous material (for purposes of transport) or dangerous good, can be used.
Non removable batteries or accumulators, unless the battery is nonremovable due to user safety or other principal purpose of the Deliverable	• ≤ 0.0005% cadmium by weight [5] • ≤ 0.1% lead by weight [5] • ≤ 0.0005% mercury by weight [5]
Alkaline Manganese	• ≤ 0.001% cadmium by weight [4,6] • ≤ 0.100% lead by weight [2,6] • ≤ 0.0005% mercury by weight [2,6]
Lead Acid, Sealed	Must be classified as non-spillable and meet the requirements of US Code of Federal Regulation, 49 CFR 173.159a and IATA Special Provision A67.
Nickel Cadmium (Ni-Cd)	Prohibited.[1]
Zinc carbon	• ≤ 0.200% lead by weight [2] • ≤ 0.001% cadmium by weight [4] (R6, R14 and R20) • ≤ 0.0001% mercury by weight [3]
Zinc Manganese	• ≤ 0.001% cadmium by weight [4,6] • ≤ 0.100% lead by weight [2,6] • ≤ 0.0005% mercury by weight [2,6]

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Note - the regulations cited below are only a sample of the regulations pertaining to batteries. They are provided for illustrative purposes only.

1 EU Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators.
2 Argentina National Legislature Act 26.184 on the manufacturing, assembly and importing of batteries.
3 New York Battery Reduction and Elimination. New York State Consolidated Laws. Environmental Conservation Http://caselaw.lp.findlaw.com/nycodes/c37/a125.html
4 Austrian Battery Ordinances 514/1990, as amended by BGB1 No. 3/1991(4 January, 1991) and BGB1.II Nol. 495/1999 (28 December 1999) of The Ordinance of Federal Ministry for Environment, Youth and Family.
5 Switzerland Ordinance on Risk Reduction related to the Use of certain particularly dangerous Substances, Preparations and Articles.
6 Brazil Resolution Number 401 of November 4, 2008 Batteries.

Appendix B – Example Declaration Form

F-2206 Form A and B_INNIO.xlsx