

AN003: RoHS and REACH Compliance

ABSTRACT

GSS is committed to providing sensors that meet environmental regulations, including EU Directive 2002/95/EC and subsequent amendments of the European Parliament and of the Council of the use of certain hazardous substances in electrical and electronic equipment (EEE) and REACH (Registration, Authorisation and Restriction of Chemicals, European Union Regulation (EC) 1907/2006).

The information detailed below describes GSS commitments.



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ROHS COMPLIANCE

All GSS products are compliant with RoHS Directive (EU Directive 2002/95/EC and all subsequent amendments) unless otherwise stated and do not contain substances restricted by the EU Directive 2002/95/EC and subsequent amendments of the European Parliament above threshold limits stated below unless the restrictive substance is subject of an exemption contained in the RoHS Directive.

RESTRICTION OF HAZARDOUS SUBSTANCES

All GSS sensors are compliant unless otherwise stated, without exemption with the latest European Union (EU) Directive 2015/863/EU, Restriction of the use of Hazardous Substances in Electrical and Electronic Equipment (RoHS 3) and do not contain any Substances of Very High Concern (SVHC) currently on the Candidate List above the threshold limit as defined by Article 33, or any substance restricted in Annex XVII, of EU Regulation (EC) No. 1907/2006 on Registration, Evaluation, Authorisation and Restrictions of Chemicals (REACH).

RoHS 3 substances have a restriction limit in percentage weight-by-weight in homogenous materials:

Banned Substance (or compound containing this substance)	Concentration Level	GSS Status
Lead (Pb) and its compounds	< 0.1% by weight/1,000 ppm	Compliant
Mercury (Hg) and its compounds	< 0.1% by weight/1,000 ppm	Compliant
Hexavalent Chromium (Cr+6) and its compounds	< 0.1% by weight/1,000 ppm	Compliant
Cadmium (Cd) and its compounds	< 0.01% by weight/100 ppm	Compliant
Polybrominated Biphenyl (PBB) flame retardants	< 0.1% by weight/1,000 ppm	Compliant
Polybrominated diphenyl ether (PBDE) flame retardants	< 0.1% by weight/1,000 ppm	Compliant
Bis(2-ethylhexyl) phthalate (DEHP)	< 0.1% by weight/1,000 ppm	Compliant
Butyl benzyl phthalate (BBP)	< 0.1% by weight/1,000 ppm	Compliant
Dibutyl phthalate (DBP)	< 0.1% by weight/1,000 ppm	Compliant
Di-isobutyl phthalate (DIBP)	< 0.1% by weight/1,000 ppm	Compliant

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REACH COMPLIANCE

In June 2007, the European Union Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) was first released. This Regulation establishes specific duties and obligations for companies in the European Union (EU) that manufacture or import substances on their own, in preparations, or in articles.

Defined by the REACH Regulation, GSS is a manufacturer and supplier of “articles” to EU customers. We do not manufacture or supply “substances” or “preparations” and our articles do not involve the “intentional release of substances”. We therefore do not expect any registration or pre-registration requirement for our products.

The REACH Regulation specifies substances of very high concern (SVHCs). All SVHC are listed on what is called the Candidate List, detailing substances that must be declared if they exceed 0.1% (percentage weight-by weight of articles). The Candidate List of substances of very high concern (SVHCs) for authorisation now contains 205 substances, which are known to have serious effects on human health or the environment.

Companies may have legal obligations resulting from the inclusion of the substance in the Candidate List. These obligations may apply to the listed substance on its own, in mixtures or in articles. Any supplier of articles containing a Candidate List substance above a concentration of 0.1 % (weight by weight) is obliged to inform its customers.

GSS is constantly monitoring the substances of very high concern (SVHCs), as defined by REACH, in our products. This will be an on-going process since the complete list of SVHCs will be released in stages and will be updated over time.

GSS products (articles) do not contain Substances of Very High Concern (SVHC) above the threshold value declared as per ECHA till Jan 16, 2020 with 205 SVHC and therefore fully comply with the related requirements of European Union Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) : 1. Customers are encouraged to visit the following site to get the most up to date information on the current list of SVHCs under REACH: <https://echa.europa.eu/candidate-list-table>.

CONFLICT MATERIALS

GSS Ltd takes its responsibility as a global partner very seriously. We work with our supply chain to ensure that we maintain the policy of not supporting Conflict material suppliers, by confirming with them that their sources of raw materials, especially Tantalum, Tungsten, Tin and Gold, are not sourced from any Conflict Regions, such as Democratic Republic of Congo, or adjoining countries.

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ON-GOING ROHS AND REACH COMPLIANCE

The compliance of GSS products with RoHS is assessed by:

- Strictly controlling the materials and finishes that are used in our products
- Periodic audits of our suppliers to ensure compliance
- Periodic analysis on an as-needed basis

SUMMARY

Customers requiring a specific RoHS or REACH certificate are advised to contact their local GSS sales office or representative.

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APPENDIX 1: ROHS HISTORY

ROHS 1 (repealed 3 January 2013)

The Directive 2002/95/EC of the European Parliament and of the Council became effective 27 January 2003. It restricted the use of certain hazardous substances in electrical and electronic equipment.

The Directive 2008/35/EC of the European Parliament and of the Council of 11 March 2008 amending Directive 2002/95/EC on the use of certain hazardous substances in electrical and electronic equipment (RoHS), as regards the implementing powers conferred on to the Commission.

ROHS 2

Directive 2011/65/EU of the European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) became effective on January 3, 2013. As a result, some of the provisions of Directive 2002/95/EC will be phased out and new provisions of the Directive 2011/65/EU will be phased in over time.

ROHS 3

EU Directive 2015/863 adds Category 11 (catch-all) products and adds four new restricted substances - all phthalates. The four phthalates are mainly used as insulation plasticizers and are on the REACH list of SVHC (Substances of Very High Concern).

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IMPORTANT NOTICE

Gas Sensing Solutions Ltd. (GSS) products and services are sold subject to GSS's terms and conditions of sale, delivery and payment supplied at the time of order acknowledgement. GSS warrants performance of its products to the specifications in effect at the date of shipment. GSS reserves the right to make changes to its products and specifications or to discontinue any product or service without notice.

Customers should therefore obtain the latest version of relevant information from GSS to verify that the information is current. Testing and other quality control techniques are utilised to the extent GSS deems necessary to support its warranty. Specific testing of all parameters of each device is not necessarily performed unless required by law or regulation. In order to minimise risks associated with customer applications, the customer must use adequate design and operating safeguards to minimise inherent or procedural hazards. GSS is not liable for applications assistance or customer product design. The customer is solely responsible for its selection and use of GSS products. GSS is not liable for such selection or use nor for use of any circuitry other than circuitry entirely embodied in a GSS product.

GSS products are not intended for use in life support systems, appliances, nuclear systems or systems where malfunction can reasonably be expected to result in personal injury, death or severe property or environmental damage. Any use of products by the customer for such purposes is at the customer's own risk.

GSS does not grant any licence (express or implied) under any patent right, copyright, mask work right or other intellectual property right of GSS covering or relating to any combination, machine, or process in which its products or services might be or are used. Any provision or publication of any third party's products or services does not constitute GSS's approval, licence, warranty or endorsement thereof. Any third party trade-marks contained in this document belong to the respective third-party owner.

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ADDRESS

Gas Sensing Solutions Ltd.
Grayshill Road
Cumbernauld
G68 9HQ
United Kingdom

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REVISION HISTORY

DATE	RELEASE	DESCRIPTION OF CHANGES	PAGES
13/05/2020	1.0	First revision	All
18/05/2020	1.1	Re-write	All
24/06/2020	1.2	RoHS qualification statement	All
27/10/2020	1.3	Updated RoHS substances	P.3