

Couëron, France, **03/08/2020**

Dear Valued Customer,

The NGK Insulators group is a world leader in the manufacture of beryllium-copper alloys. As such, we have always had a policy to provide our customers with safe and environmentally friendly products, which fully comply with current legislation in order to ensure the sustainability of our services. As a leading manufacturer in Europe, NGK BERYLCO actively participates in European studies on substances used in our products, in particular beryllium, key element in our high performance alloys. You will find below the situation of our products vis-à-vis the main European Regulations and Directives that concern them : REACH, RoHS, ELV, CMD, Conflict Minerals.

In a nutshell :

- ***Our copper-beryllium and copper-nickel-tin alloys are in compliance with European REACH regulation, and European RoHS and ELV Directives.***
- ***Only our Berylco 33/25 alloy (CuBe2Pb in rods and wires) contains lead at a low content, included on 27th June 2018 in the ECHA candidate list.***

1. REACH Regulation

The main objective of the European REACH Regulation (Registration, Evaluation, Authorization, and restriction of CHemicals - 1907/2006/EC) is to improve the protection of the human health and the environment. Under the scope of the REACH Regulation, in Europe, we import, process and supply **articles** ("object which is given a special shape which is more decisive for its function than its chemical composition"), which are not submitted to the same obligations than substances or mixtures. However, as an important actor of the beryllium industry, we have contributed to register the Beryllium substance (No. 01-2119487146-32-0003) in REACH because it is an opportunity for us to communicate positively about our products and to demonstrate scientifically that beryllium metal is, like many other metals, safe when used correctly.

🔗 List of Substances of Very High Concern (SVHC)

Since the 28th of October 2008, the European CHemicals Agency (ECHA) has published an initial candidate list of Substances of Very High Concern (SVHC), for possible inclusion in Annex XIV of the Regulation (substances under authorization). This list is updated every 6 months. The last SVHC candidate list published on **25 June 2020** brings to **209** the number of relevant substances, available on the ECHA website (<http://echa.europa.eu/web/guest/candidate-list-table>).

✅ *Beryllium, cobalt, nickel, aluminum, tin and copper metals, that we use in our alloys, are not in the SVHC list. Our alloys Berylco 25, 14, 8 and 7 (CuBe2 and CuNi2Be), and our GMX96 and 215 alloys (CuNiSn), are therefore in compliance with the REACH Regulation, in the sense that they do not contain any SVHC substance.*



Particular case of **beryllium**, key element in our alloys: the BAuA, German Institute of Occupational Health and Safety, has published in November 2016, the outcomes of the Risk Management Option Analysis (RMOA) regarding Beryllium: **Beryllium will not be included in the REACH SVHC candidate list**. For more information, don't hesitate to contact us ([RMOA Beryllium](#)).

Lead metal, ONLY present in the Berylco 33/25 alloy (CuBe2Pb), has been included in the SVHC list (from the 27th of June 2018).

The European CHEMicals Agency ECHA has decided to include Lead metal in the candidate list. We declare that only our free machining alloy Berylco 33/25 (distributed in form of rods and wires) contains lead at a level greater than 0.1 % by weight (0.4 %). The low addition of lead in this alloy is essential and not substituable to provide it a very good machinability.

REACH restrictions (annex XVII) for general public uses

It should be noted the following restrictions in the REACH Regulation:

- Entry 27 : Nickel prohibited in jewelry articles
- Entry 28 : Beryllium and Cobalt (substances and mixtures) reserved for professional use
- Entry 63 : Lead prohibited in jewelry articles and articles dedicated to children

2. RoHS Directive

The European RoHS Directive 2015/863/EU (Restriction of Hazardous Substances - Directive 2015/863 that entried into force on 22 July 2019, amending Annex II to Directive 2011/65/EU) applies to Electrical and Electronic Equipment (EEE).

It should be noted that:

- Beryllium is not in the list of the 10 controlled substances. A recent evaluation by OEKO Institut in Germany mandated by the European Commission in February 2018 does not recommend any restriction for beryllium ([Beryllium Report](#) n°5 version 3 dated on March 25, 2020).
- our copper-beryllium Berylco 33/25 alloy contains some lead, which is among the 10 substances subject to limitation, but at a content not exceeding 4 % by weight (see annex III of the RoHS directive, exemption 6C for the copper alloys containing up to 4% lead by weight).

All our copper alloys are in compliance with the RoHS directive.

There is no current or future restriction on the use of beryllium-copper as indicated by our “**RoHS Ready**” logo.

3. ELV Directive

The European ELV Directive 2000/53/EC (End of Life Vehicle) is addressed to manufacturers or importers of vehicles. Beryllium is not among the 4 prohibited substances (lead, mercury, cadmium, hexavalent chromium). It should be noted that our copper-beryllium Berylco 33/25 alloy contains some lead, but at a content not exceeding 4 % by weight (see annex II of the ELV directive, exemption 3 for the copper alloys containing up to 4% lead by weight, Directive 2013/28/EU (17th May 2013) amending annex II of the Directive 2000/53/EC).

All our copper alloys are in compliance with the ELV directive.



4. CMD Directive

The European Directive CMD 2004/37/EC (Carcinogen & Mutagen Directive) concerns the protection of workers from the risks related to exposure to carcinogens or mutagens at work. Beryllium may pose a risk in the workplace in case of inhalation of fine particles by sensitised persons (chronic respiratory disease called Chronic Beryllium Disease CBD or berylliosis) and has just been included as such in the CMD Directive (entry into force on 11 July 2019 of the 2019/983 Directive amending Annex III to Directive 2004/37/EC). This 2019/983 Directive features a binding occupational exposure limit (OEL) for beryllium of **0,6 µg/m³** of air (inhalable 8 hours). In order to ensure compliance (application in Member States no later than 11 July 2021), users of copper beryllium alloys have to carry out risk and exposure assessment (by measuring the concentration of beryllium in the air) at the workplace. It should be noted that nickel and lead will also be very soon integrated in the CMD Directive.

⁴Be Responsible Beryllium Product Stewardship



NGK BERYLCO has contributed to develop a Voluntary Product Stewardship Program for beryllium containing materials called « Be Responsible » available at www.berylliumssafety.eu. This program, endorsed by the European Agency for Safety and Health at Work, explains the best practices to be implemented for the most frequent operations in order to control exposures and to comply with this new European occupational exposure limit. For more information, feel free to contact us.

5. Conflict Minerals Regulation

The European Regulation (EU) 2017/821 adopted on 17th May 2017 sets a duty of care on the supply chain for EU importers that import Tantalum, Tin, Tungsten and Gold coming from conflict or high-risk areas. Its implementation will start on 1st January 2021. This Regulation is based on OECD rules and on US law (1502 article of the 2010 law «Dodd-Frank Wall Street Reform and Consumer Act »).

The overall goal of these regulatory measures is to ensure the responsible supply in the Union of minerals and metals known as « conflict » or « 3TG » (Tantalum, Tin, Tungsten, Gold), particularly from the Democratic Republic of Congo and neighboring countries, without contributing to armed conflicts or human rights abuses.

Copper Beryllium Berylco alloys do not contain 3TG conflict metals (no Tantalum, no Tin, no Tungsten, no Gold).

Copper-Nickel-Tin GMX alloys contain Tin, conflict metal.

We have at your disposal our CMRT (Conflict Minerals Reporting Template) and CRT (Cobalt Reporting Template) for all our alloys. Do not hesitate to consult us.



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Compliance and sustainability of Berylco Products

Our beryllium copper alloys have unique properties that cannot be replaced by any other material. Beryllium, key element of our alloys, features an exceptional not substitutable combination of properties. Due to its economic importance and its origin outside Europe, beryllium is in the list of 27 Critical Raw Materials (CRM) to the European Union, since the first list in 2011. The compliance of our alloys with legislation in force, their essential uses, and the strong worldwide growing demand, ensure their continued sustainability.

We are at your disposal for more information on NGK BERYLCO products and their compliance with regulations and directives.

Please contact **Angélique RENIER**, in charge of these issues in our organization:

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Please note that the latest information are available on our website, environment section:

<http://www.ngk-alloys.com/environment.html>

We thank you for your continued support and look forward to assisting you in the future. Yours sincerely,

Angélique RENIER
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