

Couëron, France, **07/11/2024**

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, 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 short:

- ***Our copper-beryllium and copper-nickel-tin alloys are compliant 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 **7 November 2024** brings to **242** 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, 165, 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.



EN 9100 ISO 14001
ISO 9001 ISO 45001

NGK BERYLCO FRANCE

103 quai JP Fougerat • CS 20017 • F-44220 COUËRON
Tél : +33 (0)2 40 38 67 50 • Fax : +33 (0)2 40 38 09 95
www.ngk-alloys.com • Email : nbf@ngkbf.com

Situation 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 (0.6 % max.). The low addition of lead in this alloy is essential and not substitutable to provide it a very good machinability. We have registered "Berylco 33/25 in rods" in the SCIP database of ECHA (Substances of Concern In articles as such or in complex objects, Products).

UUID (Universal Unique Identifier) article: **33e4d665-ee50-412a-8340-3d955ee7fee4**

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 and ELV Directives

RoHS Directive

The European RoHS Directive 2015/863/EU (Restriction of Hazardous Substances - Directive 2015/863 that entered 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 assessment of several substances including beryllium, published by the European Commission in February 2021, does not recommend a restriction for beryllium ([RoHS Pack 15 EC Study](#) November 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 compliant with the RoHS directive.

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

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 compliant with the ELV directive.



EN 9100 ISO 14001
ISO 9001 ISO 45001

NGK BERYLCO FRANCE

103 quai JP Fougerat • CS 20017 • F-44220 COUËRON
Tél : +33 (0)2 40 38 67 50 • Fax : +33 (0)2 40 38 09 95
www.ngk-alloys.com • Email : nbf@ngkbf.com

3. CMRD Directive (Occupational Exposure Limits)

The European Directive CMRD 2004/37/EC (Carcinogens, Mutagens or Reprotoxic substances Directive) from 9 March 2002 concerns the protection of workers from the risks related to exposure to carcinogens or mutagens or reprotoxic substances at work. Beryllium may pose a risk in the workplace in case of inhalation of fine particles by sensitized persons (chronic respiratory disease called Chronic Beryllium Disease CBD or berylliosis) and has been included as such in the CMRD 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).

Users of copper-beryllium alloys therefore must carry out risk and exposure assessment (by measuring the concentration of beryllium in the air) at the workplace. Measured exposure levels must be compared to the national limit implemented by the Member State where the facility processing beryllium-containing materials is based.

It should be noted that France, where our production unit is based, published decree 2021-1849 on 28 December 2021 transposing the European Directive at national level. On March 1, 2022, the limit value of 0.6 µg/m³ entered into force in France. This transitional value will apply until July 11, 2026, then followed by the definitive value of 0.2 µg/m³.

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.berylliumsafety.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, aiming to minimize exposures and to comply with this harmonized European occupational exposure limit. For more information, feel free to contact us.

4. 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 has started 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), CRT (Cobalt Reporting Template) and EMRT (Extended Mineral Reporting Template) for all our alloys. Do not hesitate to consult us.



NGK BERYLCO FRANCE

103 quai JP Fougerat • CS 20017 • F-44220 COUËRON
Tél : +33 (0)2 40 38 67 50 • Fax : +33 (0)2 40 38 09 95
www.ngk-alloys.com • Email : nbf@ngkbf.com

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, its origin outside Europe, and because it is not substitutable, beryllium is in the current list of 30 Critical Raw Materials (CRM) to the European Union. Beryllium has been included in the CRM list 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:

Tel. (direct line): +33 (0)2 40 38 67 64

Mobile: +33 (0)6 35 04 34 02

E-mail: renier@ngkbf.com

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
Environment Manager

Gabriel UNQUERA
President



EN 9100 ISO 14001
ISO 9001 ISO 45001

NGK BERYLCO FRANCE

103 quai JP Fougerat • CS 20017 • F-44220 COUËRON

Tél : +33 (0)2 40 38 67 50 • Fax : +33 (0)2 40 38 09 95

www.ngk-alloys.com • Email : nbf@ngkbf.com