

**In order for JVS to provide all our Employees a Safe Work Environment as well as ensuring compliance with all pertinent Environmental Regulations, Permits and our Customer requirements, we must carefully control the materials used, processed & produced in the facility.**

**We must also consider the entire life cycle of the product from beginning to the end of it's useful life to determine the full impact on the environment.**

### JVS Strict Material Design Prohibition

Group	Substance name	CAS no. (1)	Restriction	Example of type or area of use	Risk (2)
Metals	Cadmium + Cd compounds	Several	Prohibited	Pigment	C, E
	Lead chromate	7758-97-6 and others	Prohibited	Pigment	C, A, E, N
	Mercury	7439-97-6	Prohibited	Electric equipment	N, E
	Mercury + Hg compounds	Several	Prohibited	Electric equipment	N, E
	Arsenic + compounds	Several	Prohibited	Wood preservative	N, C, E
	Cadmium in batteries	Several	Phase out	Accumulators	C, E
	Chromium Hexavalent'(s)	Several	Prohibited	Surface treatment	A, C, E
	Chromium (6+) compounds (3)	Several	Prohibited	Surface treatment	A, C, E
	Chromium(VI)-salts, all members	Several	Prohibited	Surface treatment	A, C, E
	Lead	7439921	Prohibited	Alloy	N, E
	Lead alloys (4)	Several	Prohibited	Alloy	N, E
	Lead + compounds (5)	Several	Prohibited	Pigment in paints	N, E
	Nickel (6)	7440-02-0	Phase out, Rest.	Surface treatment	A
	Strontium chromate	7789-06-2	Phase out, Rest.	Pigment	C
	Zinc chromate	13530-65-9	Phase out, Rest.	Pigment	C
	Barium		Prohibited		E
Chromium		Prohibited		E	
Fibers	Asbestos Fibers, all members		Several	Friction pads, gaskets, insulations	C
Other Materials	Radioactive Materials	Several	Strict Prohibition		T, C, E
Conflict Minerals (7)	Tungsten	7440-33-7	<a href="#">Danaher Conflict Minerals Policy Statement</a>		S
	Tin	7440-31-5			S
	Tantalum	7440-25-7			S
	Gold	7440-57-5			S

**Notes:**

- (1) CAS no. = Chemical Abstract Service registry number. Internationally applied scientific index identifying chemical substances.
- (2) A = Allergy, C = Cancer, T = Toxic, E = Environmentally hazardous, N = Neurotoxic, O = Ozone depletion, R = Reproductive hazards, S= Social Injustice
- (3) For each individual batch of surface treated parts, the mean value of free hexavalent chromium must not exceed 0.3 µg/cm<sup>2</sup> when tested in accordance with STD 5713,102.
- (4) Concentration limits in accordance with the EU ELV directive are, for example, for steel 0.35 %, aluminum for machining purposes 2 % (2005), 1 % (2008), aluminum 0.4 % and copper 4 % (copper in brake linings 0.4 %).
- (5) The grey list's general limit of 0.1 per cent by mass applies to metallic lead if the component is not exempted in Annex 2 of the EU ELV directive. A lower limit of 0.01 per cent by mass applies to lead compounds.
- (6) According to EU directive 94/27/EG, only applicable to component surface coating exceeding the limit values for nickel release (0.5 µg nickel/cm<sup>2</sup>/week) European Standard (EN) 1810:1998, EN 1811:1998 and EN 12472:1998.
- (7) Suppliers to JVS are required to commit to being or becoming "conflict-free" (which means that such supplier does not source conflict minerals) and sourcing only from conflict-free smelters. Each supplier to JVS is required to provide completed EICC-GeSI declarations evidencing such supplier's commitment to becoming conflict-free and documenting countries of origin for the tin, tantalum, tungsten, and gold that it purchases.

The regulatory and automotive standards listed below contains lists of chemicals/substances that must be declared and are subject to review and approval. Chemicals/substances must be declared if they meet either of the following conditions.

1. Present in composition of the material supplied as delivered
2. Used in the process during manufacturing

Please refer to the following links which contains the most current updates & revisions.

- REACH (8) [http://echa.europa.eu/reach\\_en.asp](http://echa.europa.eu/reach_en.asp)  
REACH is a regulation of the European Union, adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals.
- GADSL <http://www.gadsl.org/>  
The purpose is to facilitate communication and exchange of information regarding the use of certain substances in automotive products throughout the supply chain. The GADSL only covers substances that are expected to be present in a material or part that remains in a vehicle at point of sale.
- EPA List of Lists <http://www2.epa.gov/epcra-tier-i-and-tier-ii-reporting/epcracerclacaa-ss112r-consolidated-list-lists-oc>

Notes:

(8) All REACH Substances including all listed Candidate substances must be declared.

Other requirements if applicable:

- RoHS [http://ec.europa.eu/environment/waste/rohs\\_eee/index\\_en.htm](http://ec.europa.eu/environment/waste/rohs_eee/index_en.htm)  
The purpose of this Directive is to approximate the laws of the Member States on restrictions of the use of hazardous substances in electrical and electronic equipment, and to contribute to the protection of human health and the environmentally sound recovery and disposal of waste electrical and electronic equipment.
- WEEE [http://ec.europa.eu/environment/waste/weee/legis\\_en.htm](http://ec.europa.eu/environment/waste/weee/legis_en.htm)  
The purpose of this Directive is, as a first priority, the prevention of WEEE, and in addition, to promote the reuse, recycling and other forms of recovery of such wastes so as to reduce disposal. It also seeks to improve the environmental performance of all operators involved in the life cycle of electrical and electronic equipment, e.g. producers, distributors and consumers, and in particular those operators directly involved in the treatment of waste electrical and electronic equipment.

[\\*Please report broken links here:](#)