

Position paper on zinc dross

Zinc dross description and uses.

Zinc dross has the CAS n° 69011-50-3 and the EINECS n° 273-694-8.

Although zinc dross is listed in the UVCB section of the EINECS inventory, the typical composition range of the main constituents can be given as follows:

- Al: up to 2.0 %
- Fe: up to 3.5 %
- Mg: up to 2.0 %
- Zn: up to 99.5

Uses of zinc dross, e.g.:

- Transformation into zinc oxides for various uses (e.g. pharmaceutical industry, cosmetics, ceramics, tyres).
- Transformation into zinc alloys (ZAMAC¹) e.g. for foundry under pressure, automotive industry, construction, packaging etc.

Discussion:

One could consider that zinc dross, having EINECS and CAS numbers, should be submitted for registration. This is not the case and this for the following reasons:

- Zinc dross can be considered either as non dangerous waste² following Directive 2006/12/EC [and exempted from the scope of REACH according to Article 2(2)] or as a product (and also exempted from registration because the substances in zinc dross have not undergone intended chemical modification during the galvanising process; the formed metal oxides are impurities).
- As zinc dross will be taken into account in the uses and exposure scenarios (Chemical Safety Assessment) of zinc, iron, magnesium, aluminium and their oxides (being impurities), the registration of zinc dross would bring no additional information for human health neither for environmental exposure.

If ever a registration was required for recovered zinc, aluminum, magnesium, iron or zinc dross, the exemption for registration according to Article 2(7)d³ would apply.

CONCLUSION:

In order to benefit from the transitional registration periods but principally to make use of Article 2(7)d, ECHA advises recyclers to pre-register the zinc in the zinc dross if the latter is not a waste.

As it is sure that zinc and the other major components of zinc dross will be registered by at least one legal entity – which must not be in the same supply chain - no further registration is necessary according to Article 2(7)d.

The impurities, like ZnO (Zn that is oxidising to the air) are not intentionally being formed and as such do not require registration.

This document was updated according to current legislation in force.

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¹ Zinc Aluminium Magnesium and Copper alloy

² EWC (European waste catalogue) number: 100501 - slags from primary and secondary production

³ The Article 2(7)d applies if the same substance has already been registered (no matter which supply chain) and the information relating to the substance (e.g. material safety data sheet) is available to the legal entity.