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Position Paper

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EDA's Position on Nitric Acid

On the CLP report in the context of the public consultation launched by ECHA on the 24 April 2017.

Part 1: Comment on the harmonized classification and labelling of nitric acid and more particularly on the Hazard class Acute toxicity and proposed future entry in Annex VI of CLP Regulation

The European dairy industry uses nitric acid blends for cleaning purposes, but is only the end user of the chemical, and this is at lower concentrations.

The specialists in the manufacture and storage of the raw chemical remain the producers, who are the only people who may come into contact with nitric acid at over 70% concentration.

Most nitric acid is sold and transported to dairy processing companies by the chemical blending industry, who will mix the nitric acid with other chemicals (for example phosphoric acid) in order to produce a cleaning agent with the best properties to remove the calcium based deposits in milk processing tanks and pipework.

Typically, the acid blends will be transported around 53% v/v concentration, in order to ensure prevention of toxic fume production, but also to maximise the efficiency of transportation. The acid blends are only dangerous to humans at the point of transfer from one storage tank to another. This is the critical risk point.

A reclassification of toxicity in Annex VI will only mean that a lower concentration of acid will be transported to dairy sites. This concentration will still be harmful with direct contact, and the consequence of a significant increase in transportation of acid will be to increase the risk of exposure at the critical risk points – the transfer of the acid from manufacturer's storage tanks to road tanker, and then again on transfer from road tanker to dairy processor storage tanks.

In effect, the proposed change to the legislation will not, in practice, lower the risk of nitric acid, but increase the risk by perhaps three times, as there will be three times as many transfers (producer to road tanker and road tanker to customer) as before.

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The European Dairy Association is therefore highlighting the very real and practical danger of reclassifying nitric acid, as opposed to a theoretical situation in a previously unknown occurrence of sudden, massive release of nitric acid (at less than 70% concentration).

Part 2: impact assessment in the dairy sector

2.1. Use of nitric acid in dairy installations

Nitric acids are used in cleaning specifically in CIP plants (cleaning in place).

- Against mineral and metallic stains (scale coming from minerals, oxydation, galalith/ erinea/ 'pierre de lait', etc.)
- To act in dissolving these scales and galalith
- With temperatures of mostly 65°C (50°C in manual washing)

The concentration in the tanks, used in the dairy industry, of nitric acids is usually 50%.
With special dosage pumps the nitric acid is pumped into CIP tanks where the concentration used in the dairy industry varies between 0.5 and 2%. The dissolution is done with water.

With technical nitric acid of <26% concentration, the volumetric consumption will be up to three times greater. This means that additional costs could arise for inventory management, delivery, storage etc.

A differentiation is necessary for nitric acid used by consumers or for commercial use. For consumers, products must comply with stricter safety requirements than products for commercial use, as there are less regulations on how the chemical is used, and no monitoring of consumer behaviour by the authorities.

For industrial use, production facilities are for the most part permitted, and constantly monitored by both safety and environmental regulatory bodies in European countries.

Staff at industrial facilities are also trained in the use and handling of chemicals, whereas the general public as consumers are not.

2.2. Practical and social consequences of a possible reclassification

If being re-classified as 'acute toxic' nitric acid it would fall under more restrictive measures – namely the so-called "Seveso III" Directive.

This Directive 2012/18/EU "on the control of major-accident hazards involving dangerous substances" demands very specific measures to be taken by the plants dealing with those substances. The control measures are heavy and expensive - due to the overall high hazard for substances falling under 'Seveso'. This is unsustainable.

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In effect, the proposed change to the legislation will not, in practice, lower the risk of the nitric acid, but increase the risk by perhaps three times, as there will be three times as many transfers (producer to road tanker and road tanker to customer) as before.

Today, more than 30 European dairy plants have a storage capacity higher than 50 tons for nitric acid with a concentration between 26 and 65%. Then, Seveso measures and "branding" will also be associated with these installations which are producing food - not chemicals - and it will create a misunderstanding or mistrust among consumers.

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