



Mines Safety Bulletin No. 130

Subject: Gold-leaching reagent containing cyanide – incorrectly labelled and transported by supplier

Date: 10 May 2016

Background

An overseas-based company has been promoting a new product as a substitute for cyanide used in gold extraction. The company claims the reagent is environmentally friendly and can be safely transported by road, rail and sea. However, several mining companies receiving samples of the new reagent report that it contains between 17 to 27 wt % sodium cyanide (NaCN).

Summary of hazard

Samples of a reagent containing cyanide were transported in containers that were inappropriate for the hazardous nature of the contents. The containers and packaging were incorrectly labelled as non-hazardous and, with no indication that the packages contained a Division 6.1 toxic substance and dangerous good. This was in breach of the *Dangerous Goods Safety Act 2004*, Dangerous Goods Safety (Road and Rail Transport of Non-explosives) Regulations 2007 and the Australian Dangerous Goods Code (Ed. 7.4).



Product sample containing about 20 % wt sodium cyanide in original packaging

Contributory factors

- The product information for the new leach reagent has been presented in a manner that disguises the fact it contains sodium cyanide.

- The material safety data sheet (MSDS) that accompanied the samples had conflicting information regarding the safe handling of the chemicals. In one section, for example, it requires the owner to abide by relevant hazardous chemical codes, whereas in others it states that the product requires no hazardous chemical labelling.

Actions required

- Exercise due diligence when dealing with companies claiming to have a substitute for sodium cyanide. Example product names are "EarthGold" and "Gold Dressing Agent".
- Exercise caution with MSDSs from companies with an unknown origin or reputation.
- Store and handle any product claiming to be a substitute for sodium cyanide as sodium cyanide until verified by a reputable testing agency. This includes labelling and storing the product as if it was a dangerous good, until proven otherwise.

Further information

- International Cyanide Management Institute, www.cyanidecode.org,

International cyanide management code for the manufacture, transport, and use of cyanide in the production of gold

- National Transport Commission, www.ntc.gov.au/heavy-vehicles/safety/australian-dangerous-goods-code/

Australian Dangerous Goods Code (Edition 7.4)

Note: This bulletin has also been issued as Dangerous Goods Safety Bulletin No. 0116.

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