Sodium azide (CAS No. 26628-22-8)

Inventory Multi-tiered Assessment and Prioritisation (IMAP)

Prior to July 1, 2020, industrial chemicals were assessed by the former National Industrial Notification and Assessment Scheme under the Inventory Multi-tiered Assessment and Prioritisation (IMAP) framework. The framework objectives were to:

- identify and rapidly assess existing chemicals of concern;
- improve chemical safety information flow and chemicals management; and
- deliver a flexible and transparent approach that was more responsive to the needs of industry, community and government stakeholders for the large number of chemicals on Australian Inventory of Chemical Substances (AICS) still requiring assessment.

The framework was a science and risk based framework for the assessment and prioritisation of industrial chemicals listed on what was then known as the Australian Inventory of Chemical Substances (AICS). It consisted of three tiers of assessment, with the assessment effort increasing with each tier. Information about a chemical's hazardous properties, as well as the nature and extent of its usage, was employed to characterise risk. More information about the framework can be accessed here.

Tier 1 Assessment

The primary aim of Tier 1 assessment was to identify chemicals that were not expected to pose a concern to workers, public health or the environment.

The Tier I human health assessment took into account both the intrinsic hazard of the chemical and potential human exposure. As such, where hazardous chemicals were used in a controlled and restricted manner, with little or no exposure to workers and the public, they were considered to be of low risk and were not further assessed.

Risk characterisation in Tier I assessment used a hazard-exposure matrix. The matrix had five hazard bands representing different severities of hazard indicators, and five exposure bands (see Figure below). There was an increase in the hazard indicator severity from hazard band zero (no indication of hazard) to hazard band four. Similarly, the highest and lowest potential for exposure were bands four and zero respectively.

Exposure information

Exposure bands gave an indication of the potential relative exposure to a chemical. An exposure band was assigned using information on the amount of an individual chemical being introduced into Australia and its uses.

Although exposure to the public and workers were considered separately, the highest exposure band from each of these considerations was used for risk characterisation for any given industrial chemical.

Hazard information

To allocate a hazard band for an industrial chemical, hazard information was compared against the agreed criteria). Where an industrial chemical meets the criteria for any hazard indicator, the industrial chemical was then placed in the highest relevant hazard band.

Validated Tier I assessment

The exposure and hazard information identified was used to characterise the risk to human health and/or the environment from industrial use of the chemical. The risk characterisation was validated prior to finalising a Tier I assessment outcome, which included:

- cross checking chemicals not expected to pose a concern against national/international lists of concern chemicals;
- peer reviewing chemicals not expected to pose a concern by a qualified regulatory scientist; and
- undertaking a preliminary chemical-by-chemical evaluation on a particular aspect of the assessment for example exposure, where this had a potential to change the outcome of the Tier I assessment.

Sodium Azide assessment (Tier I)

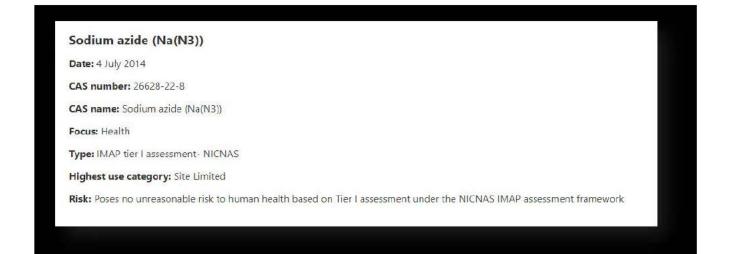
Sodium Azide is a hazardous chemical which was assigned hazard band 3 based on the sources of information listed directly below.

Tier One Assessment Hazards	
Source	Value
EUCLP	Acute Tox. 1&2 (oral); H300
HSIS	28
NZEPA	6.1B (check route)
OECDToolboxEXPData	
Summary	Endpoint met Prioritisation Criteria at Tier I
TOPKATQSAR	Inconclusive

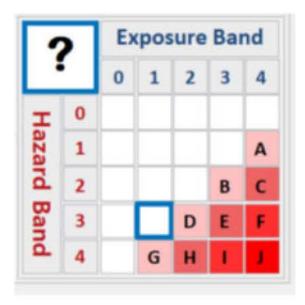
"28" in the above table refers to the Risk Phrase, "**R28 - Very toxic if swallowed**", assigned to sodium azide by the previously used classification system - Approved Criteria for Classifying Hazardous Substances.

Screenshot of the Tier I Assessment details on the AICIS website

In Australia, at the time of the assessment the industrial chemical had site limited use in a very controlled, enclosed system, resulting in minimal exposure of workers and the general public to the industrial chemical (Refer to screenshot below).



Based on the site limited use, the industrial chemical was assigned Exposure Band 1 (Refer to matrix below - blue square). Tier I assessment of sodium azide; therefore, concluded that it posed no unreasonable risk to workers handling the chemical or to the general public.



Validation of Sodium Azide assessment:

The assessment outcome (Tier 1) was validated according to the process outlined above.

alidation Comments:		
NICNAS call for information - Mandatory Feb 2004 (Sectin 48):		^
2.018 tpa		
Manufacture of lead azide explosives		
HSIS:		
R28 - consistent with ECHA C&L classification and REACH doss	sier	
REACH dossier additionally classified as fatal in contact with sk		
http://apps.echa.europa.eu/registered/data/dossiers/DISS-9eaa0		
e044-00144f67d031/AGGR-9fbe4e22-00d7-4202-8655-b6ff2e2f68		
588-474e-e044-00144f67d031.html#L-0d5f3608-a726-460c-a5a7-	ba303/ecuebo	
Reach dossier indicates used in a closed system or as an interm	neidate.	
Question for s22		
Could you please review the use information and advise whether ntermediate/site-limited use?	this is commercial or	
²² comment	alle di alta llocita di anticita	
would consider manufacture of detonators to be a highly control	olled site limited activity.	
Rand 1		
Band 1.		
	Exposure Band:	~
Exposure Summary:	Exposure Band:	~
Exposure Summary:	Exposure Band:	v 1
Exposure Summary:	Exposure Band:	v 1
Band 1. Exposure Summary: Site-limited use only	Exposure Band:	× 1
Exposure Summary:	Exposure Band:	
Exposure Summary: Site-limited use only		
Exposure Summary: Site-limited use only Hazard Summary:		
Exposure Summary: Site-limited use only Hazard Summary:		
Exposure Summary: Site-limited use only Hazard Summary:		
Exposure Summary: Site-limited use only Hazard Summary: Acutely toxic by ingestion and potentially if in contact with skin		
Exposure Summary: Site-limited use only Hazard Summary:		