Hazmat & Environment Notes Oct-Dec 2020

A Happy Christmas & New Year to everyone

Hazmat & Environment Notes are prepared by:

Jeff Simpson — Chemical Management & Regulatory Consultant, Editor & Publisher

My approach is to provide a short, succinct note on each hazardous chemical issue, sufficient to allow you to make a decision of whether it is relevant to you.

If you need more information:
Contact details / Website details / etc are provided.

I encourage all readers to network and make comment on Draft Regulations, Codes, Standards and Guidance.

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Hazardous Chemicals

• ECHA Classification and Labelling Consultations

19 Oct 2020: A classification that caught my attention.

Benzyl Alcohol 100-51-6

Hazard Classes open for comment are: Acute Toxicity – inhalation; Acute Toxicity – dermal; Acute Toxicity – oral; Serious eye damage/eye irritation; Skin Sensitisation

Proposed Additional Classification:
Skin Sensitisation 1B, H317

Comment Deadline: 18/12/2020 CLH Report (42 page pdf)

Details: https://echa.europa.eu/harmonised-classification-and-labelling-consultation/-/substance-rev/26523/term

From: https://echa.europa.eu/harmonised-classification-and-labelling-consultation

• ECHA: Nanomaterials - what do EU citizens think?

16 Nov 2020: A recent survey carried out in five selected EU countries (Austria, Bulgaria, Finland, France & Poland) shows that citizens demand better labelling of everyday products containing Nanomaterials and increased awareness of the risks and benefits of products containing nanomaterials.

It found that despite manufactured Nanomaterials being a common part of our everyday lives, general awareness about their nature, characteristics and properties is low.

The majority (87%) of study respondents want to know if the product they are buying contains nanomaterials. This information could be included, for example, on a label or packaging. Such as information on the product label for food and food-related products, medicines, cosmetics, clothing and textiles, toys, and detergents or household products.

The key recommendation of the Study is to increase European citizens' awareness of Nanomaterials, including their benefits and risks, to ensure the public can make informed choices. This is to be achieved through sharing of information and communicating the benefits & safety aspects of nanomaterials.

https://euon.echa.europa.eu/documents/23168237/24095696/nano_perception_study_en.pdf (293 page Nov 2020 pdf)

From: https://echa.europa.eu/-/what-do-eu-citizens-think-about-nanomaterials-

• ECHA: SCIP Database for articles from 5 Jan 2021

Nov 2020: SCIP is the Database for information on **S**ubstances of **C**oncern **I**n articles as such or in complex objects (**P**roducts) established under the EU Waste Framework Directive (WFD).

Companies supplying articles containing Substances of Very High Concern (SVHCs) on the Candidate List in a concentration above 0.1% w/w on the EU market have to submit information on these articles to ECHA, as from 5 January 2021. The SCIP database ensures that the information on articles containing Candidate List substances is available throughout the whole lifecycle of products and materials, including at the waste stage. The information in the database is then made available to waste operators and consumers.

From: https://echa.europa.eu/scip

Also 19 Nov 2020 Webinar (2hrs) at: https://echa.europa.eu/-/get-ready-to-submit-your-scip-notification

Editor: For waste to be appropriately recycled this information is need in all countries as we change to a Circular Economy.

• ECHA: Proposal to Reduce Microplastic Pollution

9 Dec 2020: The ECHA Committee for Socio-economic Analysis (SEAC) has adopted its opinion on a landmark restriction proposal, which would ban microplastics in products such as cosmetics, detergents, fertilisers and could lead to a ban of its use as soft infill on artificial turf sports pitches. It would prevent the release of 500,000 tonnes of microplastics into the environment over 20 years.

The adoption of ECHA SEAC's opinion follows an earlier opinion by the ECHA Committee for Risk Assessment (RAC) in June 2020. Both committees concluded that an EU-wide restriction under the EU's chemicals legislation REACH is the most appropriate means to address the risks of billions of small, solid plastic particles polluting our environment.

From: www.echa.europa.eu/-/scientific-committees-eu-wide-restriction-best-way-to-reduce-microplastic-pollution

• EPA NSW: Near Fatal Poisoning Case: $48K Fine

30 Oct 2020: The NSW Land and Environment Court has convicted and fined a NSW Central Coast man $48000 after another man almost died after consuming a pesticide stored incorrectly.

Mr Warwick Ronald McInnes was prosecuted by the EPA NSW after a 22-year-old autistic man accidentally drank the highly toxic weedkiller Paraquat which Mr McInnes had illegally stored in a Coca-Cola bottle and left in a disabled toilet at a sports field at Mangrove Mountain, in August 2017. The 22 year old man spent 18 days in hospital critically ill.

Her Honour Justice Duggan said the manner of storage of the poison in a drink bottle was a "gravely serious breach" of the NSW Pesticides Act undertaken "without any real regard for the obligations" of safe poison storage, and that the injury to the victim was significant.

EPA NSW Director Regulatory Operations Adam Gilligan said the case highlighted the vital importance of vigilance and care, when dealing with dangerous chemicals.

From: www.epa.nsw.gov.au/news/media-releases/2020/epamedia201030-$48000-fine-imposed-in-near-fatal-poisoning-case

• WorkSafe NT Safety Alert: Barbeque Gas Explosions

30 Oct 2020: WorkSafe NT has issued a Safety Alert to anyone who has built-in Gas Barbeques at their premises.

The Safety Alert highlights the gas explosion risk of poorly designed built in LP Gas Barbecues that do not have adequate ventilation. Two gas explosions involving built in gas barbecues have caused injuries in the past 18 months.

The Safety Alert urges owners and facility managers with built in barbeques at their premises to take a number of actions to reduce the risk of gas explosions from the accumulation of LP gas in poorly ventilated built-in barbecues.

Safety Alert: Gas explosion risk from built in LP gas barbecues

Actions Required: 1/ Facility managers and commercial property owners with built-in LP gas barbecue facilities should immediately check their manufacturer's built-in housing design requirements to see if ventilation, installation and operational requirements have been met. **2/** Gas barbecues that have not been designed by the manufacturer to be installed as a built-in facility should not be used until checked by a licensed gasfitter.

From: https://worksafe.nt.gov.au/forms-and-resources/news-and-events/media-releases/2020/safety-alert-issued-after-two-barbeque-gas-explosions

• WA Bulletin: Working with Hydrofluoric Acid

19 Oct 2020: Hydrofluoric Acid is very corrosive, highly irritating and poisonous. Hydrofluoric Acid burns can be severe & extremely painful, causing extensive damage or even death.

Working with Hydrofluoric Acid - Bulletin (5 page pdf)

From: www.commerce.wa.gov.au/publications/working-hydrofluoric-acid

• WorkSafe NT Alert: Asbestos in Acetylene Cylinders

2 Dec 2020: This • WorkSafe NT Safety Alert is to provide information about imported Acetylene cylinders that have been found to contain Asbestos.

Background: The asbestos identified through tests relate to the internal insulation (porous mass) in the acetylene cylinders. The cylinders were manufactured and supplied by companies based in the People's Republic of China (China).

The Australian importer was advised by the China-based supplier that the cylinders were asbestos-free. A batch was tested in China in 2018 and the laboratory certificate stated the insulation did not contain asbestos. Another batch was tested in 2020 by a National Association of Testing Authorities (NATA) laboratory in Australia and was found to contain Chrysotile Asbestos.

Since Dec 2003 the importation, manufacture, supply, sale and use or reuse of Asbestos and Asbestos-containing products is not permitted, except under very limited circumstances. Some supplier countries may classify goods with low levels of Asbestos as 'Asbestos-Free'. In Australia, ANY level of Asbestos is prohibited for import or use.

Some of the Management Actions:

Available information indicates that these cylinders do not pose a measurable health risk through normal consumptive use, providing the cylinders are not refilled. Consumers should not perform any maintenance, repairs or modifications on these cylinders.

When cylinders of risk for Asbestos are identified, the Australian Border Force (ABF) will require assurance from the importer, in the form of documentary evidence, that the Acetylene cylinders do not contain Asbestos. A test report from a NATA accredited laboratory (or equivalent international laboratory) showing no detectable Asbestos is the best form of assurance. If adequate assurance is not provided, suppliers will face delays and be responsible for costs incurred when the cylinders are held at the border for the purposes of sampling and testing.

If empty Acetylene cylinders containing Asbestos cannot be returned to the Australian supplier for replacement, they should not be disposed of unless they are taken to a licensed facility that handles hazardous waste. Used cylinders must not be cut open or their structural integrity compromised, unless under the direction of an Asbestos professional.

From: https://worksafe.nt.gov.au/forms-and-resources/safety-alerts/asbestos-in-acetylene-cylinders

• EPA USA TSCA: HBCD Final Risk Evaluation

Sept 2020: Final Risk Evaluation for Cyclic Aliphatic Bromide Cluster (HBCD)
CAS: 25637-99-4; CAS: 3194-55-6; CAS: 3194-57-8

The primary use of HBCD has been as a flame retardant in Expanded Polystyrene and Extruded Polystyrene; however, EPA identified other uses including use as a component of solder and use in automobile replacement parts.

HBCD is a Persistent, Bioaccumulative and Toxic (PBT) substance that exists as a non-volatile solid. HBCD released to the environment remains unchanged for months or longer and accumulates in aquatic and terrestrial organisms including humans. Because of these characteristics, even low levels of HBCD move through aquatic and terrestrial food chains from lower to higher levels and result in increasing concentrations in aquatic and terrestrial life higher in the food chain.

Background levels of HBCD have been measured in a variety of environmental media and biota, in indoor air and dust, and in human milk, blood, and urine. Due to HBCD's persistence, humans and environmental organisms can be exposed to background levels that stem from past activities at the five stages in the life of the chemical, i.e., manufacture (including import), processing, distribution, use, & disposal. Releases of HBCD could have resulted from activities that still occur or from releases associated with uses that phased out of all life stages.

The next step in the process required by EPA USA TSCA is risk management. EPA USA will propose and take public comments on actions to address the unreasonable risks identified in the risk evaluation. According to TSCA, the agency must finalize those actions within two years of completing the final risk evaluation.

Risk Evaluation for Cyclic Aliphatic Bromide Cluster (HBCD) (723 page pdf, 14 Mb)

From: www.epa.gov/assessing-and-managing-chemicals-under-tsca/final-risk-evaluation-cyclic-aliphatic-bromide-cluster

• EPA USA TSCA: $C(Cl)_4$ Final Risk Evaluation

Nov 2020: The EPA USA found unreasonable risks to workers and occupational non-users from 13 conditions of use of Carbon Tetrachloride ($C(Cl)_4$) CAS: 56-23-5.

EPA USA found unreasonable risks from most commercial uses of this chemical to workers in direct contact and workers nearby but not in direct contact with Carbon Tetrachloride (known as occupational non-users). This includes unreasonable risks when manufacturing the chemical; processing the chemical as a reactant or intermediate and into formulation of other products; laboratory uses; recycling; uses in a variety of industrial and commercial applications; and disposal. Unreasonable risks to workers and occupational non-users can come from long-term inhalation or dermal (through the skin) exposures. Carbon Tetrachloride does not pose an unreasonable risk for two conditions of use: when processed as a reactant in reactive ion etching and in distribution in commerce.

Risk Evaluation for Carbon Tetrachloride (Oct 2020, 392p pdf)

The next step in the process required by EPA USA TSCA is risk management. EPA USA will propose and take public comments on actions to address the unreasonable risks identified in the risk evaluation. According to TSCA, the agency must finalize those actions within two years of completing the final risk evaluation.

From: www.epa.gov/assessing-and-managing-chemicals-under-tsca/final-risk-evaluation-carbon-tetrachloride

• EPA US TSCA: Trichloroethylene Final Risk Evaluation

Nov 2020: The EPA USA found Unreasonable Risks to Human Health from 52 out of 54 conditions of use of Trichloroethylene (TCE).

– **Consumers & Bystanders:** EPA USA found unreasonable risks to consumers and bystanders from all but one

consumer use of TCE. Consumer uses include cleaning and furniture care products, arts and crafts spray coatings, and automotive care products like brake cleaners. Risks to consumers can come from short-term inhalation and dermal (through the skin) exposure. EPA USA did not find consumer use of pepper spray to present an unreasonable risk.

– **Workers & Occupational Non-Users:** EPA USA found unreasonable risks to workers from all occupational uses of TCE, except for distribution in commerce. Additionally, EPA USA found unreasonable risks from most commercial uses of this chemical to workers nearby but not in direct contact with TCE (known as occupational non-users). Risks to workers & occupational non-users can come from both short- & long-term inhalation & dermal (thru skin) exposure.

The next step in the process required by EPA USA TSCA is risk management. EPA USA will propose and take public comments on actions to address the unreasonable risks identified in the risk evaluation. According to TSCA, the agency must finalize those actions within two years of completing the final risk evaluation.

From: www.epa.gov/assessing-and-managing-chemicals-under-tsca/final-risk-evaluation-trichloroethylene%23documents

• TSCA Pollution Prevention & Toxics News Stories

Go to: www.epa.gov/chemicals-under-tsca/pollution-prevention-and-toxics-news-stories

Related TSCA Topics:
Chemicals under the Toxic Substances Control Act (TSCA)

• Canadian Chemicals Management Plan Website

Screening Assessments & Evaluations (some entries)

October 2020

The Draft Screening Assessment for coumarin 1 was published for a 60-day public comment period ending on December 30, 2020. [2020-10-31]

November 2020

The Final Screening Assessment for Substances Identified as Being of Low Concern Using the Ecological Risk Classification of Inorganic Substances and Three Human Health Science Approaches was published. [2020-11-14]

The Draft Screening Assessment for Sucrose Acetate Isobutyrate was published for a 60-day public comment period ending on January 13, 2021. [2020-11-14]

December 2020

The *Final Screening Assessment for the Phthalate Substance Grouping* was published. [2020-12-05]

The results of the 2019 Identification of Risk Assessment Priorities Activities were published. [2020-12-04]

From: https://www.canada.ca/en/health-canada/services/chemical-substances/latest-news.html

• EU REACH: Restriction of PFAS Webinar Information

Webinar held on 29 Oct 2020: Restriction of Per- and PolyFluoroAlkyl Substances (PFAS) under the EU REACH.

Summary: Germany, the Netherlands, Norway, Sweden and Denmark are working on an EU REACH restriction proposal to limit the risks to the environment and human health from the manufacture and use of all Per- and PolyFluoroAlkyl Substances (PFAS). A call for evidence was held during the summer of 2020. The webinar discusses the issues.

Webinar Recording (45 min) https://youtu.be/uW7Wtkb-t7Q

Presentations (All slides in one pdf) [53 slides pdf]

Questions and answers [36 page pdf]

From: https://echa.europa.eu/-/restriction-of-per-and-polyfluoroalkyl-substances-pfas-under-reach

• EPA NZ: 6 more Chemicals Prioritised

4 Nov 2020: The 6 additions to the Priority Chemicals List are:

- Azocyclotin, an insecticide in spider mite control products
- Chromates, a group of industrial chemicals, found in timber treatment substances
- Hydramethylnon, an insecticide used for professional and home use ant baits
- Nonylphenol, a multi-use chemical found in professional and home use pesticides, cleaning products & vet. medicines
- Propiconazole, a fungicide used in the production of fruit, cereals, grass seed, and on turf
- Tricresyl Phosphate, used as a flame retardant in a variety of products, such as adhesives, lubricants, & surface coatings.

These chemicals were all scored highly (by the EPA NZ) when screened for human health and environmental health harm.

The EPA NZ Priority Chemicals List contains 43 substances that are believed are most in need of review in New Zealand, drawn from a list of 1200 chemicals EPA NZ have screened.

Read the EPA NZ's Priority Chemicals List

The EPA NZ use a Screening Tool, called FRCaST, that evaluates chemicals' potential risks to human health and the environment. It aligns with internationally accepted practice.

Read about current EPA NZ chemical reassessments

From: www.epa.govt.nz/news-and-alerts/latest-news/six-more-chemicals-prioritised-for-reassessment/

• EPA NZ: Reassessment of Methyl Bromide

3 Dec 2020: Following the adjournment of the Methyl Bromide Aug 2020 hearing, the EPA NZ Decision-making Committee (DMC) directed that further air dispersion modelling be conducted to assist them with their deliberations.

This further air dispersion modelling is now available, and the DMC have directed parties to the hearing to provide their feedback by the end of business on 17 Dec 2020.

Direction and Minute WGT027 (3 Dec 2020, 2 page pdf)

Further Modelling Report prepared for the DMC (58p pdf, 9Mb)

From: www.epa.govt.nz/public-consultations/in-progress/reassessment-of-methyl-bromide/

12 Nov 2020: The timber industry group Stakeholders In Methyl Bromide Reduction (STIMBR) has been granted an additional four months on the recapture deadline for the fumigant Methyl Bromide.

The gas is mainly used to disinfect logs and timber products destined for export. It is a toxic & Ozone-depleting substance.

Recapture was required by Oct 2020. STIMBR applied for and was granted a waiver, and the Decision-Making Committee (DMC) directed that the new date for compliance was April 2021, on the grounds that a modified reassessment is underway to consider the definition & timing of recapture rules.

STIMBR then applied for a further extension, citing the need for certainty about log exports to India while a decision on the modified reassessment is pending. The DMC has now set the recapture deadline for 28 August 2021.

From: www.epa.govt.nz/news-and-alerts/latest-news/application-to-further-extend-methyl-bromide-recapture-deadline-granted/

• EPA NZ: Declines Creosote Import Application

17 Nov 2020: An Application to import 400,000 litres of a timber treatment concentrate containing the unapproved substance, Creosote, has been declined by the EPA NZ.

The applicant intended to use the substance in timber treatment trials in order to assess its suitability as an alternative to Copper Chrome Arsenate timber treatments, with the treated wood produced by the trials to be sold for use as fence posts or vineyard posts.

It said it needed to import or manufacture up to 400,000 litres of the concentrate to dilute into two million litres of ready-to-use product, with large volumes required to carry out full-scale commercial testing in realistic timber treatment scenarios.

There was a risk that, given the applicant's plans to sell the treated timber, members of the public could be exposed to this highly toxic substance. The risk of exposure to the public, the environment, and non-target animals, was uncertain. Based on the information available, the containment requirements were not met – and therefore the application was declined.

From: www.epa.govt.nz/news-and-alerts/latest-news/epa-declines-bid-to-import-large-quantity-of-timber-treatment-chemical/

• ECHA: Creosote more Stringent Conditions Proposed

8 Dec 2020: ECHA's Biocidal Products C'tee (BPC) supports creosote for use as a wood preservative (product-type 8).

Creosote is a wood preservative first approved as a biocide in 2011. It is used to treat electricity poles, railway sleepers, agricultural and equestrian fencing and poles used in vineyards. As it has carcinogenic; persistent, bioaccumulative and toxic (PBT); and very persistent and very bioaccumulative (vPvB) properties, it meets the exclusion criteria for biocidal active substances. According to the Biocidal Products Regulation (BPR) it should be phased out and could only be approved if one of the derogations to exclusion is met. In this regard, the BPC has concluded that currently there are no suitable alternatives available for creosote and that accordingly its approval should be renewed. In addition, the committee has now proposed more stringent conditions for authorising biocidal products that contain creosote as well as for placing treated wood on the market.

From: www.echa.europa.eu/-/creosote-approval-with-more-stringent-conditions-proposed

• Worksafe NZ: Metal Galvanising Plant Chemical Burns

2 Nov 2020: A scaffold worker sustained serious chemical burns to his hands while disassembling a scaffold at a Metal Galvanising Plant near Hamilton, NZ.

Perry Metal Protection Limited engaged Total Access Limited to assemble and disassemble scaffolding in April 2018 which had been erected above one of its covered galvanising tanks and immediately adjacent to a tank of Caustic Soda. Vapour was able to rise from the tank containing caustic soda, which was uncovered, because of the temperature maintained for the galvanising process. Vapour condensed on the scaffold creating residue containing caustic soda.

While disassembling the scaffold a worker noticed the handrails were slippery.

By the time the job was complete the worker's hands were swollen, shaking and throbbing and had black marks on them from chemical burns. As a result, he spent two months with his hands in bandages. Another worker also suffered from burns to his right arm, neck and shoulder.

In a decision released on 21 Oct 2020, Total Access Limited was ordered to pay a fine of NZ$165,000, while Perry Metal Protection Limited was ordered to pay a fine of NZ$227,500.

From: www.worksafe.govt.nz/about-us/news-and-media/worker-suffers-chemical-burns-at-metal-galvanising-plant/

Chemical Management

• WA Work Health & Safety Act 2020 Assented

10 Nov 2020: The purpose of this Bill is - to make provision about, and in connection with - the health and safety of workers; and health and safety at workplaces; and risks to health and safety arising from work; and Dangerous Goods and high risk plant; and to make consequential and related amendments to, and repeals of, various written laws; and for related purposes.

From: www.parliament.wa.gov.au/parliament/bills.nsf/BillProgressPopup?openForm&ParentUNID=8F320741B83643A8482584BF000CF89B

The WA WH&S Act as of 5 Dec 2020:

https://www.legislation.wa.gov.au/legislation/statutes.nsf/law_a147282.html (8 page pdf / docx)

Editor: As at 5 Dec 2020 the Parts / Divisions below have not come into operation:

Note: Part 1 - Preliminary [Divisions 2-5 have not come into operation.]; [Parts 2-13 have not come into operation.]
Part 14 - General [Divisions 1-3 have not come into operation.]
[Parts 15-16 have not come into operation.]
[Schedules 1 and 2 have not come into operation.]

• WA Work Health & Safety Act 2020 not Commenced

26 Nov 2020: The WA Work Health and Safety Bill 2019 was passed as the Work Health and Safety Act 2020 (WHS Act) and assented to by the Governor on 10 November 2020.

The WA WHS Act will not commence until proclamation.

The WA WHS Regulations have to be finalised before proclamation occurs.
Work on the WA WHS Regulations will progress through 2021.

Once the WA WHS Regulations have been finalised, the new WA WH&S Act 2020 will replace the current Occupational Safety and Health Act 1984, and elements of the Mines Safety and Inspection Act 1994, the Petroleum and Geothermal Energy Resources Act 1967, the Petroleum Pipelines Act 1969, the Petroleum (Submerged Lands) Act 1982, and the Petroleum and Geothermal Energy Safety Levies Act 2011 that relate to work health and safety.

The WA Dept of Mines, Industry Regulation and Safety is developing resources to assist workplace participants in adapting to the new laws. These will be available closer to the date the new laws become operational and will include information about the new Regulations.

From: https://www.commerce.wa.gov.au/worksafe/november-2020-work-health-and-safety-act-2020-receives-assent

• SWA: GHS 7 arrangements from 1 January 2021

5 Nov 2020: Safe Work Australia has updated the model Work Health and Safety Regulations (Hazardous Chemicals) Amendment 2020 and explanatory statement for the transition to *GHS* 7.

The updates correct an error that could have required businesses to relabel old stock of hazardous chemicals in some circumstances.

IF you have downloaded the previous versions, you should re-download the updated versions. The versions published on 5 November 2020 should be used in place of the original published on 28 August 2020 in all cases.

From: www.safeworkaustralia.gov.au/media-centre/news/ghs-7-transition-updates-model-whs-regulations-amendment

From: www.safeworkaustralia.gov.au/ghs-7-transition

Editor: As Eye Irritation Category 2B will no longer be removed from the Hazardous Chemical definition; this leads to a difference between the classification of Hazardous Substances in Victoria & Hazardous Chemicals in the rest of Australia.

• SWA: Health Monitoring & Hazardous Chemicals Guide

26 Oct 2020: Health Monitoring when you Work with Hazardous Chemicals Guide. It explains what you and your Person Conducting a Business or Undertaking (PCBU) must do to monitor your health and keep you as safe as possible.

Guide 17 pages (docx) (pdf)

The PCBU will make a decision to monitor your health if there is a risk you will be exposed to a hazardous chemical. If you work with Lead or Asbestos, then there is no choice and they must monitor your health. How your health is monitored will depend on the hazardous chemicals you work with.

A significant risk to your health is where you may be harmed by a hazardous chemical. This could be:

- an illness such as a cough or rash
- a disease such as cancer or dermatitis, or
- an injury such as a burn.

As a worker, you may start health monitoring before you start working. This is known as baseline monitoring. This helps your PCBU and doctor to see if your health changes over the time you are working with hazardous chemicals. It may be a physical check and sometimes urine, blood or lung tests, and will depend on the hazardous chemical you will work with.

From: www.safeworkaustralia.gov.au/doc/health-monitoring-when-you-work-hazardous-chemicals-guide

• SWA: Lead (Inorganic) Health Monitoring

19 Feb 2020: In the workplace, lead may be encountered as a dust or fume in a pure, oxide or salt form.

Lead and Lead compounds are found in solders, metal alloys, bronzes and construction material, are used as shielding for γ- or X-radiation (from X-rays) and have previously been used in paints. Lead may still be found in paint or painted products sourced from overseas.

This Guide provides information for those registered medical practitioners engaged by a PCBU to carry out or supervise health monitoring for workers.

Health Monitoring - Guide for Lead (Inorganic) (25p docx | pdf)

From: www.safeworkaustralia.gov.au/doc/lead-inorganic-health-monitoring

Editor: I have been alerted by a colleague I had missed this.

From the SWA Feb 2020 Guide (on page 4):

Amendments for Controlling Lead in the Workplace

In April 2018 the Model Work Health and Safety (WHS) Regulations were amended to reduce the threshold for:

- Lead risk work
- the frequency of blood Lead level testing
- blood Lead removal levels
- return to work blood Lead levels, and
- the Workplace Exposure Standard for Inorganic Lead (dusts and fumes).

These amendments have a two year transitional period. You should check with your State or Territory regulator to confirm the relevant dates for this transitional period.

e.g. **In Victoria** the date was 5 June 2020 with updated Worksafe Victoria Guidance for the new Lead Exposure Standard and Monitoring requirements.

The new Guidance *"Lead: A Guidebook for Workplaces"* which replaces the former Victorian Code of Practice is available at: www.worksafe.vic.gov.au/resources/lead-guidebook-workplaces and *www.worksafe.vic.gov.au/news/2020-06/reducing-risks-working-lead for an overview article*

e.g. **In NSW** there is a two year transition period from 1 July 2019 to 1 July 2021. Info: www.safework.nsw.gov.au/hazards-a-z/hazardous-chemical/lead-work

Also see the Safe Work Australia webpage: https://www.safeworkaustralia.gov.au/topic/lead

• SafeWork SA: Silica Dust Exposure 2nd Round Audits

6 Oct 2020: SafeWork SA has committed to a second-round of audits from October 2020 on silica dust exposure ensuring ongoing compliance within exposure limits and rectification of any previously identified issues.

Following audits in 2019, SafeWork SA inspectors will again be visiting workplaces identified as either being involved in fabrication and installation of engineered stone products or having the potential for high levels of exposure.

Exposure to dust containing respirable Crystalline Silica can lead to diseases like Silicosis.

From: www.safework.sa.gov.au/news-and-alerts/news/news/news-alerts/safework-sa-ensuring-workplaces-with-silica-dust-breathe-easy

• SafeWork NSW: Real-Time Silica Detector Research

10 Nov 2020: The NSW Government launched a trial of world-first technology to accurately monitor Silica Dust levels in the air that has the potential to protect NSW's workers from contracting the deadly lung disease Silicosis.

NSW Minister for Better Regulation and Innovation, Kevin Anderson, said the innovative detector could be used by workers cutting or working with manufactured or other Silica containing stone, protecting them from unknowingly inhaling dangerous levels of Silica Dust.

Phase one of *the Research Project* being conducted by *the NSW Centre for Work Health and Safety* has been completed with the final report and the feasibility study delivered in October 2020.

This world first detector has been proven successful in accurately identifying the presence of Respirable Crystalline Silica (RCS) in laboratory testing and in site testing across a

variety of industries. This validates the fundamental hypothesis that Birefringence * is a good marker for the presence of RCS.

A commercial device is estimated to be available by Dec 2021.

Also see the *NSW Dust Strategy 2020-22*.

From: www.safework.nsw.gov.au/news/safework-media-releases/world-first-real-time-silica-detector-helps-clear-the-air

And: www.safework.nsw.gov.au/advice-and-resources/campaigns/dust-strategy

And: www.centreforwhs.nsw.gov.au/Projects/silica-detection

* Birefringence is the optical property of a material having a refractive index that depends on the polarization and propagation direction of light. (Wikipedia)

• SafeWork NSW: Life-Saving Dust Laws Pass

22 Oct 2020: Life-Saving Dust Laws Pass NSW Parliament.

The process of tracking, responding to and preventing deadly occupational dust diseases such as Silicosis and Asbestos has been vastly strengthened following the passage of new Laws through the NSW Parliament.

Silicosis, Asbestosis and Mesothelioma are now Notifiable Diseases, as a Scheduled Medical Condition, which is a huge step in the journey to stamp out workplace deaths by dust exposure.

This will enable SafeWork NSW inspectors to target their compliance and enforcement efforts based on each diagnosed individual's current or previous workplaces and ultimately prevent further cases.

Over the past 12 months in NSW, 344 people were reported to have been diagnosed with an Asbestos related disease and more than 100 with Silicosis.

From: www.safework.nsw.gov.au/news/safework-media-releases/life-saving-dust-laws-pass-nsw-parliament

• NSW Resources Regulator: Hazardous Chemicals

29 Oct 2020: The NSW Resources Regulator (RR) has released a Position Paper on hazardous chemicals, following a review of their approach to the regulation of hazardous chemicals at mine and petroleum sites.

The NSW RR will be strengthening their regulatory and compliance approach towards hazardous chemicals, which will be consistent with that applied to the management of prescribed principal hazards.

The NSW RR will be actively engaging with mine operators on hazardous chemical risk management onsite and supporting industry meet the obligations under work health & safety laws.

NSW Resources Regulator Position Paper: Hazardous chemicals at mines and petroleum sites in NSW (3 page pdf)

From: www.resourcesregulator.nsw.gov.au/news/2020/position-paper-released-on-hazardous-chemicals-at-mines-and-petroleum-sites-in-nsw

• NSW: WHS (Mines & Petroleum Sites) laws review

10 Nov 2020: The lead reviewer examined all submissions and considered the issues raised in them, the outcomes of the online survey and input from the public forums. The lead reviewer then prepared a report for the NSW Deputy Premier that was tabled in the NSW Parliament on 10 November 2020.

Copy of the full Oct 2020 Report - download (209 page pdf)

Copy of the Recommendations - download (10 page pdf)

What will happen next?

The Report made 40 recommendations for the WHS (MPS) laws. Of the 40 recommendations made, the Resources Regulator will commence implementation of 25 recommendations (1-5, 11-14, 16, 18, 19, 21, 22, 28, 31-40), which include reviewing legislation and, in collaboration with other jurisdictions, reviewing existing guidance material and developing new guidance material.

Further consultation with industry stakeholders (in 2021) by the Resources Regulator is necessary for the other 15 recommendations.

Background:

The public consultation period for the Review of the NSW Work Health and Safety (Mines and Petroleum Sites) Laws ran from 1 March 2020 until 1 May 2020.

Public Discussion Paper (still downloadable) [39 page pdf]

The lead reviewer, with the Resources regulator, conducted nine public forums with six face-to-face sessions across the state & three online forums because of COVID-19 restrictions.

View: Online Public Consultation recording 7 April 2020 (You Tube) (69 minutes)

Also: PowerPoint Slides presented at the forums (41 Slide pdf)

From: www.resourcesregulator.nsw.gov.au/about-us/have-your-say/work-health-safety-mines-and-petroleum-sites-act-and-regulation-review

• Worksafe NZ: WES and BEI 12th Edition - Nov 2020

Dec 2020: The 12th Edition of Workplace Exposure Standards and Biological Exposure Indices is now available.

Earlier in 2020 Worksafe NZ consulted on proposed changes to the Workplace Exposure Standard (WES) of 18 substances and the Biological Exposure Index (BEI) of four substances. They received nearly 100 submissions and the accepted changes are now published.

www.worksafe.govt.nz/dmsdocument/20238-workplace-exposure-standards-and-biological-indices/latest (94page pdf)

Changes are identified on pages 2-8.

From: www.worksafe.govt.nz/topic-and-industry/work-related-health/monitoring/exposure-standards-and-biological-exposure-indices/

• Worksafe NZ: Secondary Containment Systems - Guidance for PCBUs – Draft for Comment

1 Dec 2020: Under the NZ Regulations, hazardous substances that are liquids, or are likely to liquefy in a fire, are required to be captured in the event they are released from their primary container. This is achieved by means of a secondary containment system.

The Worksafe NZ draft guidelines seek to address some of the range of Secondary Containment options a PCBU is likely to consider when developing a new site or making significant changes to an existing site. The Guidelines will replace the Code of Practice HSNOCOP 47 Secondary Containment Systems

Draft - Secondary Containment Systems - Guidance for PCBUs (76 page pdf)

Submissions (using their docx Response Feedback form) close at NZ 5pm on 22 January 2021.

From: www.worksafe.govt.nz/laws-and-regulations/consultations/secondary-containment-systems-guidance-for-pcbus/

• EPA NZ: GHS 7 Chemical Management Changes

5 Nov 2020: The GHS 7 changes in classifying Hazardous Substances takes effect in late April 2021, and will bring the NZ chemical management into line with the rest of the world, support international trade, and facilitate improved regulatory compliance.

The 7th Revised Edition of the Globally Harmonised System (GHS 7), will implement hazard classifications tailored for New Zealand. The new Classification System & Database are both on track to take effect on 30 April 2021.

More than 9000 Hazardous Substances are individually approved for use in New Zealand. Their details will be captured in the new EPA NZ database, which has been configured for New Zealand's unique requirements.

Although there is a transition period through to 2025 for many requirements, the EPA NZ strongly encourage industry to comply with the various changes sooner rather than later. Importers and Manufacturers should be looking carefully to get their hazard classification, labelling, and safety data sheets to comply with the new classification system.

Changes to the NZ GHS Classification System (webpage)

From: www.epa.govt.nz/news-and-alerts/latest-news/chemical-management-changes-coming-in-2021/

• New Zealand's new Hazard Classification System

Adopting the GHS 7 means:

- the HSNO hazard classification system implemented in 2001 will no longer be used
- EPA notices and group standards are updated to reflect GHS 7 requirements
- for hazardous substances approved before 30 April 2021 you must:
  * update labelling, safety data sheets and packaging requirements by 2025
  * follow the rules under the Hazardous Substances (Importers and Manufacturers) Notice 2017, Hazardous Substances (Hazardous Property Controls) Notice 2017 and Hazardous Substances (Disposal) Notice 2017 by April 2021
- you must follow all updated rules and use the GHS 7 classification on your labels and safety data sheets for new approvals issued after 30 April 2021.

The EPA NZ have tailored GHS 7 for New Zealand. The GHS system allows regulators some flexibility when they adopt certain Hazard Classifications and Concentration Cut-Offs.

- NZ have not adopted acute toxicity Category 5. This is the equivalent of HSNO 6.1E acute toxicity classification. Substances that were 6.1E due to aspiration hazard will be captured under aspiration hazard Category 1.
- NZ have not adopted skin irritation Category 3. This is the equivalent of HSNO 6.3B.
- NZ have not adopted aspiration hazard Category 2.
- NZ have not adopted hazardous to the aquatic environment acute Categories 2 and 3.
- NZ have not adopted hazardous to the ozone layer.
- Where the GHS 7 provides optional concentration cut-off values for classification of mixtures, **we adopted the lower concentration cut-off values**. This is consistent with pre-existing HSNO cut-offs.

NZ have introduced an additional hazard class to GHS 7 of "substances that are hazardous to the terrestrial environment". **It is applied only to agrichemicals or active ingredients used in the manufacture of certain agrichemicals**.

This hazard class comprises four hazard classifications that effectively maintain previous HSNO classifications:

- hazardous to soil organisms (replaces HSNO 9.2A-D)
- hazardous to terrestrial vertebrates (replaces HSNO 9.3-C)
- haz. to terrestrial invertebrates (replaces HSNO 9.4A-C)
- designed for biocidal action (replaces HSNO 9.1D biocide).

From: www.epa.govt.nz/industry-areas/hazardous-substances/new-zealands-new-hazard-classification-system/

• EPA NZ: GHS 7 Changes to EPA NZ Notices

EPA Notices (Amendments & Revocations) Notice 2020 (pdf)

Hazardous Substances (Hazard Classific'n) Notice 2020 (pdf)

Consolidated Haz. Substances (Labelling) Notice 2017 (pdf)

Consolidated Haz. Subs. (Safety Data Sheets) Notice 2017

Consolidated Haz. Substances (Packaging) Notice 2017 (pdf)

Consolidated Haz. Substances (Disposal) Notice 2017 (pdf)

Consolidated Haz. Subs. (Haz. Property Controls) Notice 2017

Consolidated Haz. Substances (Importers & Manufacturers) Notice 2015 (pdf)

The webpage Notices listing gives brief comment on each.

From: www.epa.govt.nz/industry-areas/hazardous-substances/rules-for-hazardous-substances/changes-to-epa-notices-in-2020/

• EPA NZ: Improving Chemical Assessment

12 Nov 2020: There are over 9000 substances with individual approvals, and many thousands of substances with approvals under group standards.

Changes are being made to the Hazardous Substances and New Organisms Act 1996 (HSNO) that will enable us to more quickly assess & reassess chemicals for use in New Zealand. The changes will speed up these processes by enabling us to better use information, assessments and decisions of trusted overseas regulators.

The next steps will involve MfE NZ drafting amendments to the NZ HSNO Act, and making changes to the relevant regulations, to be considered by the NZ Parliament.

Cabinet paper on proposed amendments to the NZ HSNO Act 1996 – NZ Ministry for the Environment website (13 page pdf)

From: www.epa.govt.nz/news-and-alerts/latest-news/improving-chemical-assessment-for-a-safer-environment/

• Retailer's Guide to Safer Chemicals and Materials

13 Nov 2020: Retailers need to move beyond regulatory compliance if they are to meet customer expectations for safer chemicals in products, respond to investor inquiries, and achieve favorable profiles in rankings by advocacy groups.

But, "There are thousands of chemicals out there – Where and How do we begin?" The Retailer's Guide to Safer Chemicals & Materials, by Clean Production Action answers this question.

Content Overview

https://www.cleanproduction.org/images/ee_images/uploads/resources/CPA-Retailers-Guide.pdf (51 page pdf)

From: https://www.cleanproduction.org/
(alerted by AIDGC Nov 2020 Newsletter)

• EPA USA: Handbook for Developing IRIS Assessments

9 Nov 2020: 90 days Public Comment Draft, Nov 2020.

The IRIS (Integrated Risk Information System) Program develops evidence-based, scientific human health assessments that focus on hazard identification and dose-response analyses for chemicals found in the environment.

The IRIS Handbook implements recommendations and input from the National Academy of Sciences, Engineering and Medicine (NASEM), USA EPA Agency reviewers, other Federal Agencies, USA EPA's Science Advisory Board, and workshops involving input from experts in systematic review.

The EPA USA is releasing this document and charge questions for public comment in advance of a National Academy of Sciences, Engineering, and Medicine (NASEM) peer review. Following the public comment period, comments received will be summarized and provided to the committee conducting the peer review.

http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=541571 (280 page pdf) Public Comment Draft

http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=541589 (4 page pdf) Draft Charge Questions for Reviewers

Andrew Kraft, ph: USA-202-564-0286, e: kraft.andrew@epa.gov

https://cfpub.epa.gov/ncea/iris_drafts/recordisplay.cfm?deid=350086

• USA Alliance Renewed: Diisocyanates H&S Protection

30 Sept 2020: Washington, DC – The USA Department of Labor's Occupational Safety & Health Administration (OSHA) and the American Chemistry Council (ACC) have renewed an Alliance to protect the safety and health of workers handling Diisocyanates, a compound used to make Polyurethane.

During the five-year agreement, the Alliance will focus on workplace practices to reduce and prevent exposure to Aliphatic and Aromatic Diisocyanates; promoting guidance and information that addresses the health and safety issues affecting workers within the Polyurethanes value chain, as well as the broader chemical industry; and helping employers and workers understand their rights and responsibilities under the USA Occupational Safety and Health Act

Exposure to Isocyanates can cause irritation of the skin and mucous membranes, chest tightness, and difficulty breathing. More serious health effects include asthma and other lung problems.

From: www.osha.gov/news/newsreleases/trade/09302020

• APEC Chemical Dialogue - April 2020 Survey

The APEC Chemical Dialogue (CD) serves as a forum for regulatory officials and industry representatives to find solutions to challenges facing the chemical industry in the Asia-Pacific region. It reflects APEC members' recognition of the importance of engaging with the private sector and of building public-private dialogue and cooperation for the benefit of both sectors.

April 2020: Survey for Review of Chemical Management Regulatory Systems Worldwide (272 page pdf)

April 2020: Survey for Review of Chemical Management Regulatory Systems Worldwide – *Summary* (65 page pdf)

The Survey Summary covers: Australia, Canada, Chile, Hong Kong (China), Japan, New Zealand, Peru, Russia, Singapore, Chinese Taipei, United States, European Commission.

From: www.apec.org/Groups/Committee-on-Trade-and-Investment/Chemical-Dialogue.aspx

Editor: The Survey Summary is a useful reference for understanding the chemical regulatory requirements in the surveyed jurisdictions

• EPA NZ: Hazardous Substances Update–Nov 2020

1/ Chemical Management Changes coming in 2021
Overview Information (5 Nov 2020 News)
Detailed Information (Specific Topic Webpage)

2/ Methyl Bromide Update

3/ New Experts to boost EPA NZ capacity

4/ New Reqts for Plastic Waste Import & Export (see below)

5/ Improving Chemical Assessment for a Safer Environment
(See *EPA NZ Note on page 8* with the summary information)

From: http://createsend.com/t/r-3FC2F9E72DD802F42540EF23F30FEDED (Nov 2020)

From: www.epa.govt.nz/news-and-alerts/newsletters/hazardous-substances-update/

• EPA NZ: Plastic Waste Import & Export Requirements

Nov 2020: From 1 Jan 2021, NZ importers and NZ exporters of mixed plastic waste will require a permit from the EPA NZ. Exporters will also need consent from the importing country. These requirements are part of New Zealand's obligations under the Basel Convention, to ensure the waste is treated in an environmentally-sound manner. Mixtures of Polyethylene, Polypropylene, and Polyethylene Terephthalate (PE, PP, and PET) waste do not require permits.

Email queries to: ImportExport@epa.govt.nz

Read more on the Basel Convention website

From: EPA NZ: Hazardous Substances Update–Nov 2020
http://createsend.com/t/r-3FC2F9E72DD802F42540EF23F30FEDED

• CSB: TPC Incident Factual Update Released

29 Oct 2019 Incident Summary: On 27 Nov 2019, a major loss of containment event occurred, resulting in multiple fires and explosions at the TPC Group (TPC) Port Neches Operations (PNO) facility in Port Neches, TX, USA. The TPC PNO facility manufactured 1,3-Butadiene and Raffinate-1.
The incident occurred in the facility's South Unit. The initial explosion resulted in injuries to two TPC employees and a security contractor and caused significant damage to the facility. Following the incident, county officials issued a mandatory four-mile radius evacuation order which remained in effect until 10:00 a.m. on 29 Nov 2019.

The CSB is continuing to conduct its investigation of this incident. CSB investigators analyze a wide range of aspects relating to incidents, including:

- Equipment and system design;
- Regulations, industry standards, and guidance;
- Training, operations, and procedures;
- Human and organizational factors;
- Safety management systems; and
- Historical and event data.

The 13 page Factual Update covers the Background; the Preliminary Incident Timeline; an explanation about Popcorn Polymer; and the Investigation Path Forward; with photos.

Editor: An abbreviated explanation about Popcorn Polymer.

A solid substance called "popcorn" polymer can form in process vessels containing a high concentration of Butadiene. Popcorn polymer is a hard, porous, opaque material created when oxygen reacts with butadiene in various areas of a butadiene production plant. Popcorn polymer formation involves two phases: initiation (seed formation) and propagation to polymer chains (seed growth). Oxygen reacts with Butadiene to form Peroxides; Butadiene Peroxides react with butadiene to form popcorn polymer.

High internal strain inside the popcorn polymer chains causes them to rupture and form new polymer seeds, thereby increasing the total volume of popcorn polymer as the process repeats. This large increase in volume can produce enough pressure to swell or crack steel equipment. Throughout the industry, the buildup of popcorn polymer historically has caused equipment ruptures leading to loss of containment.

From: www.csb.gov/assets/1/17/tpc_factual_update_10-29-2020.pdf?16614 (13 page pdf)

• USA OSHA Quick Takes e-News: 16 Oct 20 – 8 Dec 20

No chemical Quick Take issues. Their focus is Coronavirus.

From: www.osha.gov/quicktakes/

AICIS (Industrial/Cosmetic Chemicals)

AICIS - Australian Industrial Chemicals Introduction Scheme

Note: A monthly Chemical Gazette is no longer published

To access similar information go to News & Notices at:

www.industrialchemicals.gov.au/news-and-notices

• AICIS: Regulatory Notices 8 Sept to 26 Nov 2020

20 Nov 2020: Certificates issued for pending applications for low-volume permits – 20 Nov 2020. One Fragrance ingredient

23 Nov 2020: Evaluation of Ethanol, 2-[2-(2-methoxyethoxy) ethoxy]-, 1,1',1"-triester with Boric Acid (H3BO3) for public comment - 23 Nov 2020 Due: 21 Dec 2020

26 Nov 2020: New chemical assessment reports – October/November 2020.
11 LTD & 8 STD Public Reports were published.

From: www.industrialchemicals.gov.au/news-and-notices/regulatory-notices

• AICIS: Inventory Notices 21 Oct to 10 Dec 2020

21 Oct 2020 : Chemicals added to the Inventory 5 years after issue of Assessment Certificate. Industrial chemicals with CAS 944730-39-6, 26403-74-7 and 526203-62-3 have been added to the Australian Inventory of Industrial Chemicals (AIIC).

29 Oct 2020: Chemicals added to the Inventory 5 years after issue of assessment certificate. Industrial chemicals with CAS 1107603-83-7, 1353573-37-1 & 1673536-21-4 have been added to the Aust. Inventory of Industrial Chemicals (AIIC).

11 Nov 2020: Chemicals added to the Inventory 5 years after issue of assessment certificate. Industrial chemicals with CAS 169118-66-5 and 144093-88-9 have been added to the Australian Inventory of Industrial Chemicals (AIIC).

13 Nov 2020: Chemicals added to the Inventory following issue of assessment certificate. Industrial chemicals with CAS 119275-52-4, 1384165-05-2 and 1471316-72-9 have been added to the Aust. Inventory of Industrial Chemicals (AIIC)

25 Nov 2020: Variation of Inventory listing following revocation of CBI approval – 25 Nov 2020**.** The AICIS Executive Director varied the terms of the Inventory listing for chemicals with CAS 35483-86-4, 1195979-93-1, 1203451-13-1, 77699-82-2, 2000198-09-2 and 518045-13-1 because approval had been revoked for the proper name of the industrial chemical to be treated as Confidential Business Information (CBI).

10 December 2020: Variation of Inventory listing following revocation of CBI approval - 10 Dec 2020. The AICIS Executive Director varied the terms of the Inventory listing for chemicals with CAS 477334-62-6, 375846-63-2, 872418-55-8, 944730-63-6, 2538155-98-3 and 2538156-52-2 because approval had been revoked for the proper name of the industrial chemical to be treated as confidential business information (CBI).

From: www.industrialchemicals.gov.au/news-and-notices/inventory-notices

• AICIS: News and Updates 30 Oct to 3 Dec 2020

3 Nov 2020: *Who regulates toothpaste and oral hygiene products in Australia? It depends on how the product is advertised, its intended use – and other factors.*

16 Nov 2020: *Do you hold an Assessment Certificate — or are you covered by one?* There are certain rules about what you can — and can't — do as a Certificate holder or as a person covered by a Certificate.

Editor: I find it doesn't make sense (to me) that a business can't be added in the same way as a person can be, as typically it is the additional business that will import in the chemical under the supervision of an approved person rather than the approved person importing in the chemical in the business. The approved person needs to fully understand the regulatory requirements to complete their form. The importing manager in a business under this arrangement must realise they are subject to the approving person's regulatory sign off.

26 Nov 2020: Can You Prove You're Registered At The Correct Level? You must keep records about the value of industrial chemicals that you imported and manufactured during the Registration year.

Editor: But once you are over the $5M level and paying at the top level, no extra records are needed.

3 Dec 2020: I'm a soap maker - do I need to register with AICIS? (webpage). AICIS have added an information sheet to our soaps page that can be downloaded. It is called *'I'm a soapmaker - do I need to register with AICIS?' (1 page pdf)*

From: www.industrialchemicals.gov.au/news-and-notices/news-and-updates

• AICIS: Search Registered Businesses

Editor: This information is needed in various forms in the AICIS Business Services login. The information can be found in the **"Register Your Business"** column, as the 2nd last entry.

As at 10 Dec 2020 there were 6837 registered businesses.

From: www.industrialchemicals.gov.au/business/register-your-business-and-renew-your-registration then:

www.industrialchemicals.gov.au/search-registered-businesses

• AICIS – Open Consultations

AICIS seeks public comment from the community & industry on a variety of matters concerning industrial chemicals in Australia.

23 Nov 2020 – Further Open Consultation: Read the amended draft evaluation of **Ethanol, 2-[2-(2-MethoxyEthoxy)Ethoxy]-, 1,1',1"-Triester with Boric Acid (H3BO3).** You can apply to vary the evaluation until 21 December 2020.

Details: www.industrialchemicals.gov.au/consultations/ethanol-2-2-2-methoxyethoxyethoxy-111-triester-boric-acid-h3bo3-amended-evaluation-public-comment

The chemical was assessed in 2013 & 2014 for use as a component of finished brake fluid products for the after-care market under both assessments. Based on the data available at that time, it was not classified as hazardous to human health or to the environment.

NICNAS was notified in 2019 of the availability of a new Developmental Toxicity study that was not available at the time of the assessments as a new chemical. Based on the Developmental Toxicity study, the notified chemical may be classified as a hazardous substance.

This evaluation reassesses the human health hazard and risks posed to workers and the public, from the chemical, based on this new information.

AICIS have amended the Regulatory Obligations section of the Report: Draft Evaluation Ethanol, 2-[2-(2-MethoxyEthoxy)Ethoxy]-, 1,1',1"-Triester with Boric Acid (H3BO3) [228KB] (2).docx (42 pages)

From: www.industrialchemicals.gov.au/consultations

• AICIS & Validating your IUCLID Dossier

To meet Australian requirements.

Guidance on Validating the Chemical Dataset when submitting it in the Business Portal [9 page pdf].pdf
(For Assessment Certificate Applications)

Guidance on Validating the Chemical Dataset in IUCLID6 [9 page pdf].pdf (For Assessment Certificate Applications)

After entering all chemical-related information in the latest version of IUCLID6 (above Ver. 6.18.0), follow the steps (in the Guidance) to validate the prepared Chemical Dataset.

To validate your dataset, select the relevant application type. It will be the one based on your category of introduction.

From:
www.industrialchemicals.gov.au/help-and-guides/validate-your-iuclid-dossier-meet-australian-requirements

Editor: The IUCLID database is a new system for Australian businesses, so I thought it worthwhile highlighting the AICIS documents so we can better understand it and use it.

The IUCLID6 Use Manual:

https://iuclid6.echa.europa.eu/documentation

• AICIS: Industrial Chemicals Law in Australia

Industrial Chemicals Act 2019

Industrial Chemicals (General) Rules 2019

Explanatory Statement Industrial Chemicals (General) Rules

Industrial Chemicals Categorisation Guidelines [Word].docx

From: www.industrialchemicals.gov.au/about-us/industrial-chemicals-law-australia

Editor: I have included this Note as the Act and Rules are not immediately obvious on the AICS initial webpage. We all need consult these to learn and understand the new system details.

Scheduled Poisons & TGA Issues

• Scheduling Delegate's Final Decisions

20 Nov 2020: Final decision on proposed amendments to the Poisons Standard with respect to Azo dyes (derivatives by diazotisation) as follows:

Schedule 7 - Amend entry

AZO DYES that are derivatives by Diazotisation of any of the following substances:

p-Aminoazobenzene (CAS: 60-09-3);

o-Aminoazotoluene (CAS: 97-56-3)

o-Anisidine (CAS: 90-04-0)

p-Chloroaniline (CAS: 106-47-8)

4-Chloro-o-Toluidine (CAS: 95-69-2)

2,4-Diaminoanisole (CAS: 615-05-4)

6-Methoxy-m-Toluidine (p-Cresidine) (CAS: 120-71-8)

4,4-Methylenedianiline (CAS: 101-77-9)

2-Naphthylamine (CAS: 91-59-8)

5-Nitro-o-Toluidine (CAS: 99-55-8)

2,4-Toluenediamine (CAS: 95-80-7)

o-Toluidine (CAS: 95-53-4)

2,4,5-Trimethylaniline (CAS: 137-17-7)

except Basic Red 76 (CAS: 68391-30-0) when in Schedule 6.

A couple of their Reasons for the Amendment: the proposed amendment seeks to explicitly include these substances under the current Schedule 7 entry, as derivatives of these substances (azo dyes) are considered to be genotoxic and/or carcinogenic, the risk from these substances being used in products as colouring agents or dyes is reduced. Moreover, any benefit from the use of these substances to generate (azo) colouring agents or dyes is considered mute given their carcinogenic potential.

Dyes based on 2,4-Diaminoanisole (CAS: 615-05-4) and 4,4-Methylenedianiline (CAS: 101-77-9) are not permitted to be used in Europe, if the Amines are present at detectable concentrations in textile and leather articles that may come into contact with human skin or the oral cavity, owing to potential carcinogenic effects. Furthermore, while azo dyes are limited to a concentration of 30 ppm of the amine in dyed articles by recommendation of the Australian Competition and Consumer Commission (ACCC), the scheduling of these substances would provide complementary protection against hazards associated with the use of these substances in home dyeing.

Date of Effect: 1 Feb 2021

From: www.tga.gov.au/scheduling-decision-final/notification-proposed-amendments-poisons-standard-relation-azo-dyes-derivatives-diazotisation

Food Chemical Issues

• FSANZ: Irradiation of Fruits and Vegetables

30 Oct 2020: Qld Dept of Agriculture &d Fisheries has applied for permission to irradiate fresh fruit and vegetables as a way to stop the spread of pests like fruit fly when food is moved across quarantine borders. Australian quarantine laws mean food produced in an area where there are known pests, must be treated before they can be sent internationally or to states or territories that have quarantine restrictions.

Only a small proportion of fresh fruit and vegetables are likely to be irradiated as the majority of fresh produce in Australia and New Zealand is grown and sold in the same quarantine jurisdiction. There are already 26 fruits and vegetables allowed to be irradiated in the Food Standards Code.

Looking at the potential toxicological and nutritional impacts, Qld Dept of Agriculture &d Fisheries found no public health and safety concerns . Any nutrient losses that may occur are likely to be minimal.

A1193 Public consultation closed 11 Dec 2020. See following.

From: www.foodstandards.gov.au/media/Pages/Call-for-comment-on-irradiation-of-fruits-and-vegetables.aspx

• A1193 Irradiation as a Phytosanitary Measure for all Fresh Fruit and Vegetables

30 Oct 2020: This application is to extend the option of phytosanitary irradiation to all types of fresh fruits and vegetables. This would extend the current permissions in place for 26 fruits and vegetables in Standard 1.5.3 of the Australia New Zealand Food Standards Code (the Code). The proposed permission excludes dried pulses, legumes, nuts and seeds.

The same dose range, 150 Gray (Gy) to 1 kiloGray (kGy), and conditions (including mandatory labelling) as currently prescribed for permitted fruit and vegetables in the Code would apply. Radiolytic compounds generated through food irradiation are not produced at levels that are likely to result in harm. The levels of these compounds are generally comparable to those naturally present in cooked food. Further, there is a lack of evidence that phytosanitary irradiation of fruit and vegetables at the proposed doses would increase the toxicity of any mycotoxin contamination, or increase the allergenicity of the produce.

Its use is endorsed by two internationally recognised standards-setting agencies for human and plant health, Codex Alimentarius (Codex) and the International Plant Protection Convention (IPPC), and supported by relevant quarantine agencies in Australia and New Zealand. The evidence provides adequate assurance that irradiation as a phytosanitary treatment for pest disinfestation is technologically justified & effective in its stated purpose.

Based on the available evidence, the effect of irradiation on the nutritional quality of fruit and vegetables is likely to be low. However it is noted that in undertaking the nutrition risk assessment, not all vegetables were assessed for potential changes in nutrient content due to a lack of data. The effects of irradiation on the nutrient composition of those commodities remain uncertain. However, where small losses in nutrient content were identified in the nutrition risk assessment, the commodities in question made minor contributions to nutrient intakes. Any impact on population intakes would be minimal.

Call for Submissions 30 Oct 2020 (pdf) | (docx) (22 pages)

Supporting Document - Risk and technical assessment report (pdf) | (docx) (101 pages

Exec. Summary (8 page pdf); Application (116 page pdf)

Public consultation now closes 24 Dec 2020

From: www.foodstandards.gov.au/code/applications/Pages/A1193.aspx

• A1206 Subtilisin Processing Aid (Enzyme)

3 Dec 2020: This application is to permit the use of Subtilisin from a genetically modified strain of Bacillus Licheniformis containing the Subtilisin Gene from Pyrococcus Furiosus, as a processing aid in the production of potable alcohol.

During production Subtilisin hydrolyses Protein Peptide bonds. In potable alcohol production the Subtilisin is used in order to degrade Proteins into Peptides and Amino Acids.

Call for Submissions - 3 Dec 2020 (pdf) (docx) (16 pages)

Supporting Doc 1 - Risk & Tech assessment (pdf) (docx) (16p)

Executive Summary (pdf) (2 pages)

Application (pdf) (29 pages)

Public consultation closes 27 Jan 2021

From: www.foodstandards.gov.au/code/applications/Pages/A1206.aspx

• A1211 Maltogenic Alpha Amylase Enzyme from GM Bacillus Licheniformis

21 Sept 2020: This application seeks to permit a new source microorganism, being a genetically modified Bacillus Licheniformis, for the permitted enzyme, Maltogenic Alpha Amylase for use as processing aid in bakery, potable alcohol,

brewing and starch processing applications. The Maltogenic α-Amylase enzyme is derived from a selected non-pathogenic, non-toxigenic strain of Bacillus Licheniformis which is genetically modified to express the Maltogenic α-Amylase gene from G. Stearothermophilus

Executive Summary 1 page (pdf)

From: www.foodstandards.gov.au/code/applications/Pages/A1211.aspx

• A1212 Beta-Fructofuranosidase Enzyme from Aspergillus Fijiensis

5 Nov 2020: Permits a new source microorganism, Aspergillus Fijiensis, being an updated name of Aspergillus Niger, for the permitted enzyme beta-Fructofuranosidase. It should be noted that both the enzyme and the microbial source are considered identical to that which was part of application A1055.

Executive Summary (2 page pdf)

Fm: www.foodstandards.gov.au/code/applications/Pages/a1212.aspx

• A1214 Nicotinamide Riboside Chloride as Vitamin B3 in Food for Special Medical Purposes

17 Nov 2020: This application is to amend the Food Standards Code to permit the use of Nicotinamide Riboside Chloride as a permitted form of Vitamin B3 in Food for Special Medical Purposes (FSMPs).

Nicotinamide Riboside Chloride (NR) is an innovative chemical substance that is a precursor for Nicotinamide Adenine Dinucleotide (**NAD+**) in the human body, with fewer adverse effects or identified safety issues than is the case for other established and/or permitted NAD+ precursors. Evidence suggests that the use of NR in FSMPs has a particularly strong potential as a method of delivering/increasing the anabolism of NAD+ to support human wellness during metabolic stress and aging.

Executive Summary (1 page pdf)

From: www.foodstandards.gov.au/code/applications/Pages/a1214.aspx

• A1215 Cetylpyridinium Chloride Washing Process Aid

17 Nov 2020: This application is to request the addition of Cetylpyridinium Chloride (CPC) to Schedule 18 of the Australia New Zealand Food Standards Code as a washing processing aid diluted to <1% concentration in potable tap water for use as an antimicrobial treatment / decontamination of raw poultry.

Executive Summary (12 page pdf)

From: www.foodstandards.gov.au/code/applications/Pages/a1215.aspx

Agricultural Chemicals

• APVMA: New Spray Drift Guidance Documents

26 Oct 2020: 2 new APVMA spray drift guidance documents have been published to assist registrants with applications to update spray drift instructions, apply for a new spray drift risk assessment, or apply for consideration of new drift reduction technology (DRT).

The new APVMA guidance documents form part of the APVMA's current spray drift policy which was introduced in July 2019, and provide practical examples to assist registrants in understanding how the APVMA will implement the policy.

Guidelines for updating spray drift instructions on labels when a full spray drift risk assessment has not been undertaken

Guidelines for applications to update spray drift instructions, update the spray drift risk assessment and recognise new drift reduction technology

From: https://apvma.gov.au/node/75406

• EPA USA: Chitosan – Minimum Risk Pesticide Ingredient

EPA USA Proposal to Add Chitosan (Poly-D-Glucosamine) to the List of Active Ingredients Permitted in Exempted Minimum Risk Pesticide Products. (www.epa.gov/node//40897)

www.epa.gov/sites/production/files/2020-10/documents/10009-24-prepub-copy-fr-doc.pdf (16 page pdf)

www.epa.gov/pesticide-registration/proposal-add-chitosan-list-active-ingredients-permitted-exempted-minimum-risk

• EPA USA: Pesticide Reg'n – Bridge or Waive Data

Sept 2020: Guidance for Waiving Acute Dermal Toxicity Tests for Pesticide Technical Chemicals & Supporting Retrospective Analysis.

The proposed dermal toxicity guidance would allow waivers for studies on single-active ingredients used to develop end use products to apply for waivers. In developing the guidance, EPA USA conducted a retrospective analysis and concluded that its requirements for such studies provides little to no added value in regulatory decision making. This guidance, when finalized, is expected to save up to 750 test animals annually from unnecessary testing as well as EPA USA, industry and laboratory resources.

From: www.epa.gov/pesticide-registration/bridging-or-waiving-data-requirements

• NTP: Neonicotinoid Pesticides - Potential Health Effects

Report Date Sept 2020: Scoping Review of Potential Human Health Effects Associated with Exposures to Neonicotinoid Pesticides. National Toxicology Program (USA DHHS) Research Report 15, ISSN: 2473-4756.

Neonicotinoid pesticides are commonly used in the United States to control insects on domestic animals and as seed coatings on agricultural crops, such as corn and soybeans. In areas of widespread use, neonicotinoids have been observed in surface waters, produce, and prepared foods. Because these pesticides are neurotoxic to insects through insect nicotinic acetylcholine receptors (nAChRs), concerns have been raised as to whether Neonicotinoids may bind to receptors in off-target species, including humans, and result in adverse health effects.

The objective of the scoping activities was to identify and summarize scientific literature indexed in PubMed reporting exposure to one or more Neonicotinoid pesticides registered for use in the United States and any reported outcome relevant to human health effects.

https://ntp.niehs.nih.gov/ntp/results/pubs/rr/reports/rr15_508.pdf (46 page)

From: https://ntp.niehs.nih.gov/publications/reports/rr/rr15/index.html

Also see webpage and documents at: Neonicotinoid Pesticides & Adverse Health Outcomes

Neonicotinoid pesticides are a class of chemicals that act as insecticides by exerting neurotoxic effects via irreversible binding to insect nicotinic acetylcholine receptors. Because nicotinic acetylcholine receptors are also present in the nervous systems of mammals, there is concern that neonicotinoids may impact animals other than their insect targets, including humans.

Alerted by the ACTRA Monthly Bulletin, 27 Nov 2020

• EPA NZ: Paraquat Products Disposal Deadline

15 Oct 2020: Users of the heavily restricted herbicide paraquat were reminded that they must have disposed of any remaining stocks of four specific products by 12 Dec 2020.

The deadline affects Uniquat 250, Parable 250, Gramoxone Inteon, and Preeglone Inteon.

Paraquat is a broad spectrum contact herbicide that has previously been used in the horticultural and agricultural sectors for clover seed, lucerne, and kūmara production.

In late 2019, in addition to banning the four products, an EPA Decision-making Committee placed greater controls on

Paraquat. This restricts its future use to agricultural or biosecurity purposes only. Only two mixtures containing Paraquat remain approved under the new rules. From 12 Dec 2020, interim labelling must be in place, as well as responsible handling information.

From: www.epa.govt.nz/news-and-alerts/latest-news/disposal-deadline-looming-for-banned-paraquat-products/

• NZ Draft Standard: Management of Agrichemicals

NZS 8409:2004 (Committee 8409 draft 9 Nov 2020): provides practical and specific guidance on the safe, responsible and effective management of agrichemicals, including plant protection products (such as herbicides, insecticides, fungicides), veterinary medicines, and agricultural use of detergents and sanitizers.

https://shop.standards.govt.nz/docserv/drafts/DZ8409_Public_Comment_Draft_9-11-20.pdf (175 pages)

The revised Standard incorporates key changes, including:

- Recent changes to legislation – in particular changes related to storage, and training and competency;
- Updated hazard classifications to reflect the GHS classification system being adopted;
- Inclusion of dairy detergents and sanitisers, but exclusion of fumigants;
- Updated and expanded off-label guidelines to align with current industry practice;
- New spray planning requirements including a requirement for an on-site risk assessment prior to spray application;
- Revised requirements for notification and signage;
- Changes to good practice in areas such as PPE, recycling and disposal;
- Changes in technology such as UAVs and robotics;
- Wider agrichemical use is included, for example conservation, revegetation work and vegetation control within powerline corridors.

Comment closes 1 February 2021.

From: www.standards.govt.nz/developing-standards/comment-on-draft-standards/

Dangerous Goods

• NTC: Dangerous Goods packed in Limited Quantities

18 Nov 2020: Consigning and Transporting Dangerous Goods packed in Limited Quantities - Guidance for Users.

www.ntc.gov.au/sites/default/files/assets/files/Limited-quantities-guidance-document.pdf (9 Oct 2020, 27 page, v1)

This Guideline is designed to assist duty holders and enforcement agencies in interpreting and applying the requirements of Chapter 3.4: Dangerous Goods Packed in Limited Quantities in the Australian Dangerous Goods Code.

Section 4 of this Guideline contains a quick reference that provides an overview of the requirements. This section is structured in the form of FAQs with links to the relevant sections of the Guideline where more detailed information can be found.

The term 'Dangerous Goods packed in Limited Quantities', generally referred to as LQ, refers to small containers (generally the type seen in retail stores) that have been packed in a box or shrink wrapped tray. The term 'limited quantity' is unrelated to the aggregate quantity of Dangerous Goods in the consignment or the vehicle load.

The rationale behind the Limited Quantity provisions is that selected (lower risk) Dangerous Goods in small containers and packed in good quality, robust outer packaging pose a lower risk in transport than the same goods packed in larger volumes. The stringent quantity and packaging provisions are designed to ensure that any potential release in transport would be minimal. Based on this, LQ Dangerous Goods can be transported with less stringent requirements than those that apply to fully regulated Dangerous Goods.

Note: Before deciding to take advantage of the concessions in Chapter 3.4, you should determine if they are appropriate for your business. In some instances, for example, manufacturing or distribution businesses that regularly consign large loads of both fully regulated Dangerous Goods and LQ Dangerous Goods may find that any benefits gained are outweighed by the time and resources required to comply with two different sets of requirements. For these businesses, it may be simpler and more cost-effective to treat all Dangerous Goods as fully regulated.

From: www.ntc.gov.au/codes-and-guidelines/australian-dangerous-goods-code under *Guidance and Support Material.*

• EPA NSW: Truckie Dangerous Goods Licence cancelled

11 Nov 2020: The EPA NSW has cancelled the Licence of a Sydney truck driver after multiple breaches of the Dangerous Goods transport rules potentially putting other road users in danger.

In October 2019, the driver was caught driving a tanker transporting approximately 32000 litres of petrol through Sydney's Airport and M5 East tunnels, which is banned under legislation as it is an offence to transport a placard load of Dangerous Goods, such as petrol, through Sydney's tunnels.

The driver was also cited for not displaying the necessary Class 3 Flammable Liquid placards on his truck. In Australia, any tank vehicle carrying bulk Dangerous Goods, or residues of Dangerous Goods, is required by law to display placards.

"This driver not only broke the law, he put other tunnel users' safety at risk because if there was an incident any first responder or emergency worker would have been unaware of the danger of the goods he was carrying," Ms Chang said (EPA NSW Executive Director Regulatory Policy).

While drivers are permitted to transport diesel through Sydney's tunnels, Dangerous Goods vehicles are prohibited from travelling in Sydney's tunnels. Operators must make every reasonable effort to prevent their drivers from unlawfully using prohibited routes.

The Licence cancellation also prevents the driver from applying for a Dangerous Goods driver licence anywhere in Australia for five years.

"This should act as a warning to people neglecting their responsibilities on our roads – break the rules and the EPA NSW will take appropriate regulatory action," Ms Chang said.

From: www.epa.nsw.gov.au/news/media-releases/2020/epamedia201111-truckies-dangerous-goods-licence-cancelled (alerted by AIDGC Nov 2020 Newsletter)

• Work Safe Vic: Decanting & Storing Dangerous Goods

2 Dec 2020 Safety Alert: About the hazards associated with decanting Dangerous Goods into unlabelled containers.

Background: Two employees suffered serious burns when they attempted to extinguish a machine fire with liquid from an unmarked container. The employees mistakenly thought the liquid in the container was water when it was actually a Flammable Liquid.

Issues: Dangerous Goods stored in unmarked containers pose serious risks to health and safety as the appearance of Dangerous Goods can be mistaken for other goods, such as water.

Key Actions: If Dangerous Goods are transferred into a portable container for use at the workplace, an occupier of premises must ensure:

- the container into which the Dangerous Goods are transferred is clearly labelled with the Class, Subsidiary Risk and product name of the Dangerous Goods, or
- if this is not possible, another means of clearly identifying the Dangerous Goods is used

From: www.worksafe.vic.gov.au/safety-alerts/decanting-and-storing-dangerous-goods

• Vic: Dangerous Goods Act & Associated Regs Review

30 Nov 2020 - Editor: There are eight key comments / proposals / matters from my Overall Comments on the "The Independent Review of the Victorian Dangerous Goods Act 1985 and associated Regulations", I (Jeff Simpson) want focused on.

The Consultation Paper sort submissions from interested parties which closed 30 Nov 2020.

The Review is part of the Victorian Government's response to high profile incidents associated with illegal chemical stockpiling at several sites across Melbourne.

Consultation Paper - Independent Review of the Vic Dangerous Goods Act & Associated Regulations - Andrew Palmer QC, Oct 2020 (69 page pdf). This paper includes the Review's Terms of Reference as an Appendix.

From: https://engage.vic.gov.au/download_file/34677/4592

Questions that the Review is seeking views on - as contained in the Consultation Paper (3 page docx)

From: https://engage.vic.gov.au/download_file/34509/4592

Note: I have not repeated the Questions in the following points (as they can be downloaded), just my Proposals and Comments.

Under Q2 & Q4 & Q50: JS Proposal – Chemical management high level competencies for professional / technical specialists need to be required by the DG Act, (and OH&S Act and EPA Act) & Regs.

Under Q8: JS Proposal – WorkSafe Victoria to set up an email list for alerting chemical management issues and changes for managing Dangerous Goods, Reactive Chemical Hazard substances and Serious Health hazard Hazardous Substances, for persons working / representing / consulting in this chemical management specialist area. A similar email list could also be set up by EPA Vic. Such lists need to be self-maintained (but where each member would need to adequately identify themselves). This email list then becomes a focussed information alerting system so that such persons become an extension of Work Safe Vic to keep the community aware of issues, proposals and changes.

Under Q29: JS Proposal – All businesses should have a duty to undertake due diligence in relation to the disposal of the Dangerous Goods operators waste; and each Business need to part of the feedback loop for how and when their waste was finally treated and disposed of to EPA Vic standards

Under Q30: JS Proposal – The person taking final waste disposal decision responsibility should carry their own personal Professional Indemnity and Public Liability insurance (as a contracted in consultant specialist requires).

Under Q38: JS Proposal – Chemical reactors for converting wastes back to starting point circular economy raw materials. Chemical reactors will require serious technical specialists to manage, to ensure there are no unexpected chemical / reactivity / waste risks. This will require Australia wide industry regulations to ensure such materials are used before new raw materials.

Under Q42: JS Comment – Yes, as Dangerous Goods waste is transported under the ADG Code in ALL other States and Territories. This requirement then properly protects the emergency services and public, should a waste incident occur whilst being transported, which the EPA Vic Act does not do as it has not been maintained for transport of Dangerous Goods to the same requirements.

Under Q50: Are there any other relevant matters that the Review should consider?

50-1 / JS Comment – Correctly understanding and managing Dangerous Goods is currently not a competency required for senior technical and regulatory specialists under the Victorian Dangerous Goods Act and/or Regulations.

E.g. How does a business check their specialist's competency to classify chemical hazards for your business?
How do they know if the Reactive Chemical Hazards are really taken into account in their SDSs?

50-1/ JS Proposal – Include chemical management competencies needed into the DG Act, (& OH&S & EPA Acts).

50-2 / JS Comment – **Being clear (and consistent with other States & Territories) for Storage and Handling of Dangerous Goods labelled Environmentally Hazardous under UN 3077 and UN 3082.**

In other WHS Regulations States & Territories, Dangerous Goods labelled Environmentally Hazardous under UN 3077 and UN 3082, is NOT required to be stored as Dangerous Goods (even though labelled as UN 3077 & UN 3082 D.Goods).

It is only imported Dangerous Goods labelled Environmentally Hazardous under UN 3077 and UN 3082 products that must be stored in Dangerous Goods storages (unless relabelled as Not AU Road & Rail Dangerous Goods).

Locally produced equivalent products are not even required to be labelled as Environmentally Hazardous chemicals under Australian regulations, though from liability many are (but not as AU Road & Rail Dangerous Goods)

50-2/ JS Proposal – This difference of storage requirements for DG Labelled vs Not DG Labelled Environmentally Hazardous products needs to be reviewed, and made consistent with other States & Territories.

• Beirut 4 Aug 2020 Explosion Cause Identified

23 Nov 2020: Scientists from the University of London presented their research into the causes of the explosion in Beirut. It is based on photos and videos that social media users filmed from 2014 to 2020.

On 4 August 2020, due to Beirut's powerful explosion, more than 200 people were killed, and 6.5 thousand were injured.

With the help of videos and photos of this event posted by users of social networks, forensic scientists could recreate a picture of what happened.

The findings are presented in a 12-minute video in which they used video clips filmed throughout the city on the day of the explosion, from the smoke plumes that began to rise from the warehouse to the explosion itself.

They found that in October 2014, at Beirut's docks, 2,750 tons of Ammonium Nitrate were unloaded and later stored. Over the years, the city has received several reports of security risks to the material stored there. A chemical examination in February 2015 found that 70% of the nearly 3,000 bags in which Ammonium Nitrate was stored were torn, and the crystalline material was outside.

Photos are taken inside the building before the incident show that the same warehouse contained 23 tons of fireworks, over a thousand rubber car tires, and five rolls of a flammable cord. According to forensic experts and technical experts, the warehouse contents have become a kind of homemade bomb.

As part of the study, GitHub unveiled 3D models developed by Forensic Architecture, including a warehouse, smoke clouds, the start of an explosion, and part of the city of Beirut detailing where some of the main videos were filmed.

From: *https://freenews.live/scientists-have-identified-the-cause-of-the-explosion-in-beirut-on-social-networks/*

And: https://gizmodo.com/beirut-blast-ranks-among-history-s-most-powerful-accide-1845287564

Alerted by: AIDGC Nov 2020 newsletter

• NZS Std 5433: Transport of Dang. Goods on Land

NZS 5433 2020 is finalised. The NZ Standards Committee has aligned with UN Model Regs 21 and includes the Dangerous Goods List with the Properties and Observations (similar to the IMDG Code) as a 'supplementary handbook (HB)'.

The HB is then hoped to be readily updatable, without the need to progress through the entire Standards review process.

Check for the 2020 edition at *www.standards.govt.nz*
The cost is expected to be <NZ$100.

Environmental Notes on Chemicals

• Fine $500K for Synthetic Greenhouse Gas Import

30 Oct 2020: The largest fine ever issued under Australia's strict Ozone protection laws has been handed down to a Victorian-based fire protection company, formerly known as Fire Protection Technologies Pty Ltd, for the unlawful importation of HydroFluoroCarbon (HFC).

Federal Minister for the Environment, Sussan Ley said the Department's prosecution against the company commenced in July 2019 after an investigation into the importing of bulk HFC without a controlled substances licence.

During the investigation, department officers seized several one-tonne capacity cylinders containing HFC-227ea, a widely used extinguishing agent, from the company's premises in Melbourne and Perth, Minister Ley said. This amount of HFC had the potential to create emissions equivalent to the annual emissions of 6600 cars or 2300 households.

The company was aware of their obligations and import licensing requirements but proceeded to import a significant quantity of HFC-227ea anyway.

HFC-227ea is the fifth most potent of the 18 scheduled HFCs under the Act, and the most potent HFC that is commonly imported into Australia.

From: https://minister.awe.gov.au/ley/media-releases/company-fined-500000-unlawfully-importing-synthetic-greenhouse-gas

• EPA Vic: New EPA Laws & Regs start 1 July 2021

On 1 July 2021: When the amended Victorian Environment Protection Amendment Act 2018 comes into force, EPA Vic will have enhanced powers. EPA Vic will use these to prevent risks to the environment and human health. EPA Vic will also be able to issue stronger sanctions and penalties to hold environmental polluters to account.

The General Environmental Duty (GED) is a centrepiece of the new Laws. The GED applies to all Victorians. If you conduct activities that pose a risk to human health and the environment, you must understand those risks. You must also take reasonably practicable steps to eliminate or minimise them. In an Australian first, the General Environmental Duty (GED) is criminally enforceable.

From: https://www.epa.vic.gov.au/about-epa/laws/new-laws

• EPA Vic: Altona Refinery excess Butane Exemption

19 Oct 2020: EPA Vic granted the Mobil Altona Refinery an exemption to handle excess Butane in alternative ways to allow it to continue to produce fuel at its Altona refinery.

Due to a supply chain issue it will have an excess of Butane at its site. From the 5 Nov 2020 until 14 Jan 2021 the community may notice an increase in flaring from the refinery, which is necessary for safety reasons at the Altona plant.

Other excess Butane will be added to the company's petrol production and the company will slow production of Butane to reduce the amount it has on site.

Mobil was unable to find an alternative site for processing or storage of the excess Butane.

From: www.epa.vic.gov.au/about-epa/news-media-and-updates/news-and-updates/epa-grants-altona-refinery-exemption

And: www.exxonmobil.com.au/Community-engagement/Local-outreach/Mobil-community-news/2020/Altona-refinery-operations-update

• Transforming Waste and Recycling in Victoria

Recycling Victoria: A New Economy (46 page pdf) is Victoria's Circular Economy policy and 10-year Action Plan to deliver a cleaner, greener Victoria with less waste and pollution, better recycling, more jobs and a stronger economy.

For Example the New Plan includes:

Make sure risks to the Victorian community and environment from hazardous waste and high-risk sites are properly managed.

Victoria will have the right infrastructure to support increased recycling, respond to new bans on waste export and safely manage hazardous waste.

From: www.vic.gov.au/transforming-recycling-victoria

• Refrigeration & Air Conditioning Industry Trends

1 Oct 2020: Cold Hard Facts 2020 (prepared for the Federal Dept of Agriculture, Water and the Environment) analyses data from 2019 to identify key developments and emerging trends in the refrigeration and air conditioning industry.

The refrigeration and air conditioning industry is the largest user of synthetic greenhouse gases and ozone depleting substances in Australia.

A significant slowing is evident in the rate of growth of the regulated bank of refrigerants in Australia, in terms of the metric tonnes of refrigerant employed, from 4.3% compound annual growth exhibited in the period 2006 to 2016 to just 1.8% in the three years 2016 to 2019.

This slowing in the rate of growth of the bank, combined with increased use of lower Global Warming Potential (GWP) refrigerants, suggests that the GWP value of the Australian bank of refrigerants may have reached its peak in 2019-20, and with current modelling is expected to decline in the years ahead as the combination of several trends in the Refrigeration and Air Conditioning (RAC) industry accelerate a reduction in the average GWP of the bank.

Cold Hard Facts 2020 (37 page pdf) or (docx)

Appendix A (54 page pdf) or (docx)
"Methodology – Taxonomy, Data and Assumptions"

Appendix B (xlsx) Spreadsheets

From: www.environment.gov.au/protection/ozone/publications/cold-hard-facts-2020

• Victoria: 300 Megawatt Li-Ion Battery to be Built

5 Nov 2020: The 300 Megawatt battery will be installed near the Moorabool Terminal Station, just outside of Geelong and will be ready by the 2021-22 summer, by 1 Nov 2021. It will be the largest Lithium-Ion battery in the Australia.

It is intended to boost reliability (as Victoria's ageing coal-fired generators are becoming increasingly unreliable), drive down electricity prices and support the state's transition to renewable energy.

It will help reduce wholesale prices – and people's power bills – by storing cheap renewable energy when it is plentiful and discharging it into the grid when it is needed most. Over the next decade, batteries are only required to provide energy for short durations to balance the network.

From: www.energy.vic.gov.au/media-releases/victoria-to-build-southern-hemisphere-biggest-battery

And: www.energy.vic.gov.au/renewable-energy/the-victorian-big-battery/the-victorian-big-battery-q-and-a

• EPA Vic: Application for an e-Waste Licence

21 Oct 2020: The Application from Envirostream Aust. P/L at its Berwick Rd, Campbellfield site, is for an EPA Vic Licence to manage and continue operating a specified e-waste recycling and resource recovery facility to recycle end-of-life (spent) mixed batteries.

Six main end-of-life battery types are collected from retailers including lithium ion batteries, lithium metal batteries, alkaline batteries, nickel calcium batteries, nickel metal hydrate batteries and lead acid batteries.

Envirostream wants to store no more than 308 tonnes of material at any one time.
Of the 308 tonnes of material, Envirostream proposes:

To store 36 tonnes to be unprocessed e-waste; 115 tonnes to be unprocessed specified e-waste; 80 tonnes to be mixed batteries; and 77 tonnes to be processed material.

Submissions closed 18 Nov 2020.

From: www.epa.vic.gov.au/about-epa/news-media-and-updates/news-and-updates/envirostream-applies-for-licence

Editor: I included this Note so we can gain a perspective on it.

• EPA Vic: Interim Position Statement on PFAS

26 Oct 2020 - 1669.4: The purpose of this EPA Vic Interim Position Statement, is to outline EPA Vic's current state of knowledge regarding Per- and Poly-Fluorinated Alkyl Substances (PFAS). It also provides guidance on EPA Vic's current approach to the assessment and management of PFAS sources and how to approach potential contamination. This document is intended to be updated as new information becomes available. (It replaces 1669.3 Oct 2019)

Statement (1 page pdf):
www.epa.vic.gov.au/-/media/epa/files/publications/1669-4.pdf

From: www.epa.vic.gov.au/about-epa/publications/1669-4

• EPA NSW: Poor Hazardous Chemical Storage Practices

26 Oct 2020: Failing to properly store hazardous chemical waste has resulted in Cleanway Environmental Services Pty Ltd being fined $15,000 by EPA NSW for an alleged licence breach.

The inappropriate storage issues included incompatible waste chemicals stored together throughout the warehouse, chemicals left outside in the open, waste chemicals not accurately labelled and pallets of laboratory chemicals obstructing access to storage bays.

A dangerous reaction, fire or explosion could have resulted from chemicals that must be stored separately mixing, should there have been a leak or a spill. The risk of this happening was increased by forklift movements in the area.

Cleanway's obligations are clearly set out in their Environment Protection Licence, which is designed to reduce risks associated with hazardous chemicals.

Cleanway complied with the EPA NSW directions and has since improved staff training, labelled chemical storage bays and revised chemical pick-up procedures.

From: www.epa.nsw.gov.au/news/media-releases/2020/epamedia201016-company-fined-$15000-for-poor-hazardous-chemical-storage-practices

• EPA NSW Fact Sheet: How do I Report Odours?

2 Dec 2020: When reporting odour and air pollution incidents, there is some simple information to consider to help EPA NSW Officers investigate.

There is an example Odour Log Sheet that can be printed out and used to record your observations.

What – When – Where – How Impacted

https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/pollution/20p2674-reporting-odours-fact-sheet.pdf (2 page pdf)

From:
www.epa.nsw.gov.au/publications/air/how-do-i-report-odours

• Australia: National PFAS Position Statement

21 Oct 2020: The purpose of this Position Statement is to outline a nationally unified vision for reducing future PFAS use in Australia, so that governments and PFAS users (whether industry, businesses, manufacturers, regulators, or policy-makers) can work towards an agreed and clear set of objectives.

PFAS are a group of over four thousand chemicals. Some PFAS are very effective at resisting heat, stains, grease and water, making them useful chemicals for a range of applications. Unfortunately, these properties also make them problematic in the environment. 'Long-chain' PFAS are of greatest concern, as they can be highly mobile in water (which means they travel long distances from their source-point); they do not fully break down naturally in the environment; they can build up in the bodies of animals and humans, and can be toxic to a range of animals. 'Short-chain' PFAS are also known to be highly mobile in water and not fully break down naturally in the environment.

A Position Statement that Australian governments agree to the list objectives is included. (Editor – I have abbreviated them)

- Ongoing sale or use that contain long-chain PFAS should be phased out.

- Transitioning away from the use of chemicals that cause irreversible or long-term contamination of Australia's environment should be the ultimate goal for all users of PFAS in Australia.

- Importers, sellers and users of chemicals should inform themselves about the presence of PFAS in products and articles, due to their potential negative environmental, health and socioeconomic impacts.

https://www.coag.gov.au/sites/default/files/agreements/appd-national-pfas-position-statement.pdf (4 pages)

https://www.coag.gov.au/sites/default/files/agreements/appd-national-pfas-position-statement.docx (4 pages)

• Polycyclic Aromatic Cpds in Atmospheric Particulates

10 Nov 2020: Non target Screening of Polycyclic Aromatic Compounds (PACs) in Atmospheric Particulate Matter Using Ultrahigh Resolution Mass Spectrometry and Comprehensive Two-Dimensional Gas Chromatography (Environmental Science & Technology).

Polycyclic Aromatic Hydrocarbons (PAHs) are mutagenic and carcinogenic. 16 PAHs as priority pollutants listed by the US Environmental Protection Agency were usually monitored. Therefore, multiple potentially toxic Polycyclic Aromatic Compounds (PACs) are not monitored. In this study, atmospheric particulate matter samples from Beijing were analyzed.

Eighty-two PACs with high identification confidence were proposed for further research. The identities of five PAHs and five APAHs that are currently not regulated were confirmed using available standards and quantified in some samples. Some of these PACs, such as dibenzo[a,e]pyrene (C22H14) and 1-methylpyrene (C17H12), should be of concern because of their contamination levels and the high toxicities of themselves and/or their derivatives.

This study highlights the possibility of expanding the traditional lists of PAHs to improve pollution control and risk assessment accuracy.

From: https://pubs.acs.org/doi/10.1021/acs.est.0c02290

Alerted by National Toxics Network.

• Hydrogen (Green / Blue) as a Future Source of Energy

18 Aug 2020: Stimulus packages are giving Hydrogen a key role in recovery plans, especially to decarbonise sectors such as chemicals, steel, and heavy transport, where electrification – anticipated as the main route to decarbonisation – may not be an option.

The Netherlands, Germany and Portugal have all set out broad strategies to boost research efforts, and help create demand. The EU sees Hydrogen as a key to delivering on its commitment to slash Carbon emissions by at least 50% by 2030.

The EU's Strategy envisages a six-fold increase in capacity to produce green Hydrogen – made using renewable energy to split water into its constituent elements – by 2024. This would be used to decarbonise existing Hydrogen production in chemicals and refining where, today, electrolysers produce just 4% of Hydrogen demand. A further scale up to at least 40GW of electrolysers capable of making 10 million tonnes of hydrogen a year by 2030, anticipates its use in steel production, trains and shipping. By this stage, green Hydrogen is expected to become cost-competitive with other forms of hydrogen production from fossil fuels. All this could require up to €340 billion for 80–120GW of wind and solar generation, while hundreds of millions more will be needed for Hydrogen transport and storage infrastructure (although some existing gas pipelines could be converted), and to convert end-of-life steel mills.

Across the UK and continental Europe, port authorities are teaming up with industrial users and producers to create green Hydrogen clusters where demand and supply can meet.

Today, most Hydrogen is made from fossil fuels, mostly by steam reformation of methane (SMR). IF combined with carbon capture (utilisation) and storage CC(U)S, Hydrogen made this way is referred to as blue Hydrogen.

From: www.chemistryworld.com/news/overcoming-hydrogen-hype/4012281.article

• Two Enzyme System for Plastics Depolymerisation

13 Oct 2020: Characterization and engineering of a two-enzyme system for plastics depolymerisation.

The recent discovery of a two-enzyme system for Polyethylene Terephthalate (PET) deconstruction, which employs one enzyme to convert the polymer into soluble intermediates and another enzyme to produce the constituent PET monomers (MHETase), suggests that nature may be evolving similar deconstruction strategies for synthetic plastics. This study on the characterization of the MHETase enzyme and synergy of the two-enzyme PET depolymerization system may inform enzyme cocktail-based strategies for plastics upcycling.

From: www.pnas.org/content/117/41/25476
Proceedings of the National Academy of Sciences of the USA.

• Pyrolysis Oil from Waste tires as a Raw Material

21 Sept 2020: BASF SE is to invest €16 million into Pyrum Innovations AG, a technology company specialized in the pyrolysis of waste tires, headquartered in Dillingen/Saar, Germany. With the investment, BASF will support the expansion of Pyrum's pyrolysis plant in Dillingen and the further roll out of the technology.

This is in addition to BASF Germany sourcing raw material oil from mixed plastic waste.

Pyrum is currently running a pyrolysis plant for end-of-life tires that can process up to 10,000 tons of tires per year. Until the

end of 2022, two additional production lines will be added to the existing plant. BASF will uptake most of the pyrolysis oil and process it into new chemical products by using a mass balance approach as part of its ChemCycling™ project. The resulting products will mainly be for customers from the plastics industry who are looking for high-quality and functional plastics based on recycled materials.

From: www.basf.com/global/en/media/news-releases/2020/09/p-20-311.html

- **AU Standards –** https://infostore.saiglobal.com/

https://infostore.saiglobal.com/en-au/Search/Standard/?sortKey=date-desc&productFamily=STANDARD

AS ISO 27916:2020: Carbon Dioxide capture, transportation and geological storage - Carbon Dioxide storage using enhanced oil recovery (CO2-EOR). Published: 30-10-2020. 55 pages. Hardcopy $225.35. pdf (1 user $203.03); (3 users $263.92)

DIN 68800-4: 2020: Wood Preservation - Part 4: Curative treatment of wood destroying fungi and insects and refurbishment. Publisher: German Institute for Standardisation (Deutsches Institut für Normung). Published: 01-12-2020. Hardcopy $208.37 (German). pdf (German) $154.95.

- **Draft Standards Open for Public Comment**

Standards Australia has updated its process for downloading a Draft Standard. Visitors to SAI Global Infostore (above) are no longer able to download the drafts (even though most are in the SAI Global search list (website as above).

All drafts are now available directly from Standards Australia by clicking on "Download draft". There is a simple "word" search function.

https://sapc.standards.org.au/sapc/public/listOpenCommentingPublication.action

Draft AS 2243.2 Safety in Laboratories, Part 2: Chemical Aspects. *Comment by 12 Jan 2021*

Note: Comment must be via the Hub. Any emails or forms sent to Standards Australia by fax or mail will not be considered by the Committee when it reviews the Public Comment received.

- **NFPA Codes, Reports, News**

All NFPA documents are at: www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards

Current NFPA Stds Newsletter: *www.nfpa.org/Codes-and-Standards/Standards-development-process/NFPA-News (pdf)*

NFPA News-&-Research: *www.nfpa.org/News-and-Research*

www.nfpa.org/News-and-Research/Data-research-and-tools/Hazardous-Materials

Standards Seeking Public Development Input

For a complete listing of NFPA standards accepting Public Input, please go to www.nfpa.org/publicinput

Standards Seeking Public Comment

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Choose a document for comment from the List of NFPA Codes & Standards or filter by Development Stage for "codes accepting public comment".

*As part of its commitment to enhancing public safety, NFPA makes its Codes & Standards available for **free online**.*

Courses, Seminars etc, Networks

- **DGAG Webinar Discuss Meeting, 17 Feb 2021**

Dangerous Goods Advisory Group Webinar meetings, **Wed 17th Feb 2021)**. 5.30-7.30pm Discuss/Chat Meetings.

You can join before from 5.20pm and stay on after for a bit.

Info: www.haztech.com.au/click-this-tab-for-a-list-of-all-meetings-conferences-seminars-workshops/

IF you would like to be added to my Dangerous Advisory Group / Chemical Hazard Communication Network meeting email issues list, please email Jeff.Simpson@haztech.com.au. You don't have to be in Melbourne, to be on this email list.

- **CHCN Webinar Discuss Meeting, 3 March 2021**

Chemical Hazard Communication Network Webinar meeting, **Wed 3rd March 2020,** 5.30pm–7.30pm Discuss/Chat meeting.

You can join before from 5.20pm and stay on after for a bit.

Info: www.haztech.com.au/click-this-tab-for-a-list-of-all-meetings-conferences-seminars-workshops/

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- **IChemE: Fundamentals of Process Safety, Brisbane**

Brisbane, 21 June 2021, 5 days.

From: www.icheme.org/career/training/courses/fundamentals-of-process-safety/register-your-interest-brisbane-australia/

- **IChemE Bulk Solids Handling for Chemical Engineers**

Melbourne: Delayed due to Covid 19. Maybe Early-Mid 2021.

From: www.icheme.org/career/training/courses/bulk-solids-handling-for-chemical-engineers/date-to-be-advised-melbourne-australia/

- **IChemE Practical Distillation Technology Course**

Melbourne: Delayed due to Covid 19. Maybe Early 2021.

From: www.icheme.org/career/training/courses/practical-distillation-technology/tbc-melbourne-australia/

- **IChemE HAZOP Study: Leaders & Team, Brisbane**

Brisbane, 20 July 2021, 3 days

From: www.icheme.org/career/training/courses/hazop-study-for-team-leaders-and-team-members/20-22-july-2021-brisbane-australia-register-your-interest/

- **IChemE Training – On-Line Courses**

The on-line courses are available

For example - purchased as On-Demand recordings.

An Introduction to HAZOP 2 CPD Hrs £149 + VAT

Chemical Engineering for Scientists and Other Engineers 20.5 CPD Hrs £1296 + VAT

From: www.icheme.org/career/training/online-courses/

- **Various Chemical Management Courses**

See www.haztech.com.au for courses I am aware of:

www.haztech.com.au/hazardous-chemicals-management-training-resources-in-australia-nz/

Haztech Environmental: Chemical Hazard Classifications done & reviewed. SDSs prepared & reviewed. Labels prepared & reviewed. Chemical Management & Safety Regulatory Advice & Compliance: checked for NICNAS, APVMA, FSANZ, TGA; prepared & reviewed for Dangerous Goods & Combustible Liquids, GHS Hazardous Chemicals / Hazardous Substances, Environmentally Hazardous Substances, Scheduled Poisons, and other Chemical and Physical Hazards e.g. for Reactivity and Dust Explosion.

I can come and work in your office, which provides better access to data with improved security, plus good technical contact with relevant personnel. This allows the work to be done more quickly and comprehensively. *I also work from my home office*, in Ashburton, Victoria, where I maintain an extensive reference library, developed over 30 years whilst preparing these Notes.

Contact: Jeff Simpson, Hazardous Materials & Regulatory Affairs Consultant, Haztech Environmental, 18 Laurel St, Ashburton 3147, Australia, 61-(0)3-9885-1269, 61-(0)403-072-092, Jeff.Simpson@haztech.com.au, Website: www.haztech.com.au.

Hazmat & Environment Notes" publication times are approx: end March, early June, mid Aug, mid Oct, and early Dec.
Renewals are notified with your last issue. The date of your last issue of your subscription will be given on the top right corner of the envelope label, e.g. July 21 or normally in the Subject of the Email in which you receive the Hazmat Notes pdf file.

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