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OECD: Side Chain Fluorinated Polymer Mgmt NTP USA: Update Newsletter – Nov 22 & Dec 22	5 5	CFA: Alternative Energy Incidents	17
EC: Safe & Sustainable Chemicals and Materials	6	ABC Qld: Lithium-Ion Batteries start Tip Fires	17
EPA NZ: Chemical Assessments Process Update	6	•FR NSW: Lithium-Ion Battery Warnings	18
•EPA NZ: Upcoming Public Consultation in 2023	6	 UFUA: Call for Govt Action on E-Vehicle Fire Risks WA DMIRS: Lithium-Ion Battery Safety & Gifts 	18 18
•EPA NZ: Hazardous Substances Update: Oct/Nov	6	•WA DIVING. Littliant-ion battery Salety & Gills	10
•EU Court of Justice Annuls TiO ₂ H351 Classification	7	Environmental Notes on Chemicals	18
CEFIC: Animal Testing Transition Roadmap Supported	7	APH: Inquiry into Ocean & Waterways Plastic Pollution	18
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•CSB Video: 2019 PES Fire & Explosion in Philadelphia	9	•EPA Vic: Chemical Spill at Cherry Creek - Charges	20
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CSB Update: BP-Husky Fatal Refinery Incident, OHIO	9	Premier Vic: Vic's Recycling Systems Co-investing IN COPST Action to Toolsla Impact of Plastic on Climate	21
 OSHA USA: Mgmt of Highly Haz. Chemicals Std 	9	 UN COP27: Action to Tackle Impact of Plastic on Climate EPA NSW: Plastic Packaging &Single-Use Plastic Items 	21 21
 ◆OSHA USA Quick Takes e-News 	9	Vic: Single-Use Plastics Banned from 1 Feb 2023	21
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	oj o	•IUPAC: Emerging Technologies in Chemistry - 2022	21
•AICIS: Regulatory Notices 22 Oct to 15 Dec 2022	9	 c&en: BASF is Going Deeper into Industrial Biotech 	22
AICIS: Inventory Notices 22 Oct to 15 Dec 2022 AICIS: Never and Undetec 22 Oct to 15 Dec 2022	9	Cton doude 9 Codes	22
AICIS: News and Updates 22 Oct to 15 Dec 2022 AICIS: ≤10kg Introductions - Amended Rules	10 11	Standards & Codes	22
•AICIO. 2 Toky Introductions - Amended Rules	11	 AU, BSI, DIN Standards (since 19 Aug 2022 	22
Scheduled Poisons & TGA Issues	11	 AU, BSI, DIN Draft Standards (since 19 Aug 2022) 	22
TGA: Nicotine Vaping Reg Reform Consultation		NZ Standards & Drafts	22
WA: Nitrous Oxide Gas Canisters – now S6 Poison	11 11	 NFPA Codes, Reports, News 	23
TGA: Scheduling of Medicines & Poisons Weblinks	12	Seminars, Conferences, Info Sources	23
TGA: Poisons Standard Format & Structure Update	12	•	
•Scheduling Delegate's Final Chemical Decisions	12	DGAG Discuss / Chat Meeting 15 th Feb 2023 Notes in ANIZ 45 47 th Note 2023 Notes in ANIZ 45 47 th Note 2023	23
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•A1260: 2-Methyloxolane as a Solvent Processing Aid	13	IChemE Training: On-Line Courses	23
•EFSA Guide Plan: Phthalates & Other Plasticisers	13	AU GHS Classification, SDS & Label Training	23
●EFSA: Sulfites - Safety Concern for High Diet Intake	13	CHCS: Advanced Preparation of SDSs	23
•EFSA Consultation: Nitrosamines in Food Draft	13	•UNITAR Free Online Courses (for Chemicals)	23
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T	13	 Society of Chemical Industry (UK) C&I Magazine 	23
APVMA: Malathion Proposed Regulatory Decision	13	◆C&EN: Chemical & Engineering News	23
APVMA: Application Defect Notices - Updating Info APVMA: Application Defect Notices - Updating Info	14		
APVMA Vision: Strategic Objectives 2023 - Draft FDA NZ OLA Request: Assessment of Charlesotte	14	Hazmat & Environment Notes are prepared & edite	
• EPA NZ OIA Request: Assessment of Glyphosate	14 14	by Jeff Simpson Print ISSN: 1441-5	534
 EPA USA: Withdrawal of the Glyphosate Interim 	14		

Hazardous Chemicals

• NHMRC: E-Cigarettes & Vaping Chemical Hazards

23 June 2023: Electronic cigarettes (e-cigarettes) are battery-operated devices that heat a liquid containing chemicals (called 'e-liquid') to produce an aerosol that users inhale (a process known as vaping). Every e-liquid is different and usually contains a number of chemicals that can be harmful. E-liquids can contain nicotine, even when labelled 'nicotine free'.

2022 CEO Statement on Electronic Cigarettes www.nhmrc.gov.au/health-advice/all-topics/electroniccigarettes/ceo-statement (23 June 2022)

There are 11 pdfs for download from the website below.

From: www.nhmrc.gov.au/health-advice/public-health/electronic-cigarettes

TGA: Regulation of Nicotine Vaping Products

30 Nov 2022: Public comment is sort on potential reforms to the regulation of Nicotine Vaping Products (NVPs) in Australia, aimed at preventing children and adolescents from accessing NVPs, while supporting access to products of known composition and quality for smoking cessation with a doctor's prescription.

NVPs are nicotine-containing products intended to be used in vaping devices such as e-cigarettes, e-cigars & other Electronic Nicotine Delivery systems (ENDs). This includes vape liquids, e-liquids and e-juices that contain Nicotine and/or Nicotine salts.

Potential reforms in 4 main areas: 1/ Changes to border controls for NVPs; 2/ Pre-market TGA assessment of NVPs against a product standard; 3/ Strengthening the product standard regarding minimum quality and safety standards for NVPs; 4/ Clarifying the status of NVPs as 'therapeutic goods'.

<u>Consultation Paper - Proposed reforms to the regulation of nicotine vaping products</u> (Nov 2022, 25 page pdf)

Make a submission at the TGA Consultation hub

Consultation closes 16 Jan 2023.

Note: This Consultation Paper does NOT consider potential changes to the regulation of vaping products that do not contain Nicotine, nor vaping devices; the former do not fall under TGA's regulatory remit while the latter are only regulated by the TGA if their sole use is the delivery of medicine, such as Nicotine.

Over the coming months, the Commonwealth, in conjunction with State and Territory governments, is considering whether the regulation of these products requires any change.

From: www.tga.gov.au/resources/consultation/consultation-proposed-reforms-regulation-nicotine-vaping-products

From: https://consultations.tga.gov.au/medicines-regulation-division/proposed-reforms-to-the-regulation-of-nicotine-vap/

IChEMS Proposed Scheduling Decisions

14 Nov 2022: The information that you provide on these proposed decisions will inform the regulatory scheduling of chemicals on the IChEMS Register.

An indicative list of chemicals that are covered by the proposed regulatory scheduling decisions is available in the Supporting Documents library. This list contains chemical names and CAS Registry Numbers in a Comma Separated Values (CSV) format to assist chemical users to search their chemical inventories.

Indicative list of chemicals subject to section 17 consultation.csv e.g. Hexabromobiphenyls (23 CAS); Hexachlorobutadiene (1 CAS); Dichloronaphthalenes (11 CAS); Trichloronaphthalenes (15 CAS); Tetrachloronaphthalenes (23 CAS); Pentachloronaphthalenes (15 CAS); Hexachloronaphthalenes

(11 CAS); Heptachloronaphthalenes (3 CAS);

Octachloronaphthalene (1 CAS) (ALL these Brominated and Chlorinated chemicals have proposed Schedule 7 Decisions);

Plus Proposed Schedule Decisions for: CAS: 55722-64-0 (Sch 3); 1449104-34-0 (Sch 3); 3395-98-0 (Sch 2); 189959-16-8 (Sch 2); & A polymer with No CAS No. (Sch 1).

Chemical Profile - PeCB, HBB, HCBD & PCN (pdf | docx)

Chem Profile - PeCB, HBB, HCBD & PCNs –Attach (pdf | docx) Submissions closed 7 Dec 2022.

Background: IChEMS is a national approach to managing chemical use, storage, handling and disposal.

Schedule 7: Likely to cause serious or irreversible harm.

Schedule 3: Has the potential to cause harm.

Schedule 2: Unlikely to cause harm.

From: https://haveyoursay.agriculture.gov.au/ichems-s17-proposed-decisions

Also: www.epa.nsw.gov.au/news/news/2022/draft-decisions-to-manage-chemicals-have-your-say

EPA USA: Methylene Chloride - Revised Risk

10 Nov 2022: The EPA USA released a final revised risk determination that finds that Methylene Chloride (Dichloromethane), presents an unreasonable risk of injury to health under its conditions of use.

The final revised risk determination does not assume that all workers exposed to Methylene Chloride are always provided or appropriately wear Personal Protective Equipment (PPE).

Final Revised Unreasonable Risk Determination for Methylene Chloride, Nov 2022 (Oct 2022, 26 page pdf)

Nontechnical Summary of the Risk Evaluation for Methylene Chloride, Nov 2022 (Oct 2022, 6 page pdf)

Response to Public Comments, Methylene Chloride Revised Unreasonable Risk Determination, Nov 2022 (Oct 22, 55p pdf)

From: www.epa.gov/assessing-and-managing-chemicals-under-tsca/final-risk-evaluation-methylene-chloride#documents

EPA USA IRIS Draft Hexavalent Chromium Review

20 Oct 2022: EPA USA announced the release of the IRIS Toxicological Review of Hexavalent Chromium (External Review Draft) for a 60-day public comment period. The draft will subsequently undergo external peer review by EPA's Science Advisory Board. The IRIS Toxicological Review of Hexavalent Chromium (Interagency Science Consultation Draft) and accompanying interagency comments were also released. The deadline for comments is 19 Dec 2022. [Federal Register Notice 20 Oct 2022

From: www.epa.gov/iris/iris-recent-additions (20 Oct 2022)

For information:

EPA USA's Hexavalent Chromium Workshop (Sept 2022) www.epa.gov/iris/hexavalent-chromium-workshop

ACC: Hexavalent Chromium & EPA USA's Draft

20 Oct 2022: American Chemistry Council (ACC) article. EPA USA currently has in place a Maximum Contaminant Level (MCL) of 100 parts per billion (ppb) total Chromium based on the assumption of 100% Hexavalent Chromium in the water.

"Studies show that there was no observed toxicity in rodents exposed to Hexavalent Chromium concentrations in drinking water at the current total chromium MCL. In fact, at hexavalent chromium concentrations of 1400 ppb - more than ten times the current drinking water standard for Total Chromium -- there was no observed toxicity in rodents. Researchers did not observe

toxicity in the rodents until the Hexavalent Chromium dose was 5000 ppb - 50 times the total chromium drinking water standard. Thus, drinking water containing 100 ppb or less Total Chromium would not be expected to cause intestinal hyperplasia, a precursor to the development of cancer, in humans.

Cr(VI) Mode of Action Research Study: https://cr6study.info/

From: www.americanchemistry.com/chemistry-in-america/news-trends/press-release/2022/acc-s-hexavalent-chromium-panel-comments-on-epa-s-draft-iris-assessment

Article about Hydrogen in the Home: Is it Safe?

27 Oct 2022: Article by Tom Baxter CEng FIChemE (Extracts)

Hydrogen is inherently less safe than Natural Gas, from a fire and explosion standpoint. It has a much broader explosive range, it is much more prone to leaking, a much lower ignition energy level, and can produce higher over-pressures on explosion. In its favour though, is its buoyancy; it will disperse more easily and there is no Carbon Monoxide emission risk with Hydrogen combustion, but that does not affect fire and explosion risk. Another downside to Hydrogen is it produces more NOx than natural gas when combusted.

The UK Government investigated the safety of Hydrogen during Work Package 7 of the Hy4Heat programme (144p pdf). The aim was to demonstrate that Hydrogen for household heat can be made as safe as Natural Gas, from a fire & safety viewpoint.

Comparing Natural Gas base case with the Hydrogen base case, it is clear that there will be many more fire and explosion events with Hydrogen – 39 per year compared with 9 for Natural Gas.

Coupling that with the event consequence gives an overall risk of injury of 65 for Hydrogen compared to 17 for Natural Gas. Clearly, unmoderated Hydrogen for domestic heating is much less safe from a fire and explosion standpoint than Natural Gas and does not meet the Government's aim of similar risk.

From: www.thechemicalengineer.com/features/home-hydrogen-is-it-safe/

Alerted by AIDGC What's Happening newsletter.

ECHA Weekly News 26 Oct – 14 Dec 2022

26 Oct 2022: REACH 1/ Call for evidence: screening report on six Sodium Perborates; 2/ Reports have been published for groups of: Polyol Amines; and Ditriazine Stilbenedisulfonic Acid Dyes (optical brighteners).

CLP Four New intentions and Eight proposals to harmonise classification and labelling: 1/ NI: Acetophenone (CAS 98-86-2); Eugenol CAS 97-53-0); Thymol CAS 89-83-8); & I-p-Mentha-1(6),8-dien-2-one (CAS 6485-40-1). 2/ Reactive Brown 51 (EC 466-490-7, CAS -); Diammonium Decaborate (CAS 12007-89-5); Potassium Metaborate (CAS 13709-94-9); Potassium Pentaborate (CAS 11128-29-3); Dipotassium Tetraborate (CAS 1332-77-0); Dipotassium Octaborate (CAS 12008-39-8); Sodium Metaborate, Anhydrous (CAS 7775-19-1); and Magnesium Metaborate (CAS 13703-82-7).

2 Nov 2022: REACH 1/ Call for evidence: Investigation report on polyvinyl chloride and its additives (open until 6 Jan 2022).
2/ The EC has granted authorisations for uses of 4-(1,1,3,3-

Tetramethylbutyl)phenol, ethoxylated (4-tert-OPnEO) (EC -, CAS -), expiring Jan 2026 thru to Jan 2033.

3/ Workshop on Trivalent Chromium in Decorative Plating: presentations & meeting summary available (see specific Note) 4/ Data Uploader: converting your chemical data into IUCLID format. Webinar recording, presentations & Q&A are available IUCLID6: New release now ready to install (31 Oct 2022);

EC: Guidance for Safe & Sustainable Chemicals & Materials

(see specific Note). The aim of this Guidance is to boost the protection of people and the planet against hazardous substances.

<u>9 Nov 2022</u>: REACH 1/ Restriction proposals for <u>Bisphenols (& derivatives)</u> (webpage) & <u>Creosote (& related substances)</u> (webpage) available. 2/ regulatory needs reports for the <u>Paraben Acid, Salts and Esters</u> group (24 page pdf).

Editor: Also known on labels as various Hydroxybenzoates.

Biocides: Efficacy Guidance (V5.0, Nov 2022, 489 page pdf) updated. The update covers the chapter on disinfectants for product-types 1-5. Sections on co-formulants being potential active substances, virucidal claims, room and laundry disinfection, and disinfection of packaging before aseptic filling have been added or revised.

Nanomaterials: The latest study by the EU Observatory for Nanomaterials provides a list of nanomaterials currently on the EU market and identifies key EU market operators.

Study of the EU market for nanomaterials, including substances, uses, volumes and key operators (webpage) with this report "Study on the Product Lifecycles, Waste Recycling and the Circular Economy for Nanomaterials" (Nov 2021, 131 pages) specifically focuses on manufactured nanomaterials and incidental nanomaterials. There are 7 other scientific reports and 1 other admin report on the above webpage.

ECHA: new data availability system. To improve the ECHA services and the way ECHA publishes *non-confidential* chemicals information on the ECHA <u>website</u>, ECHA has worked on a new data availability system.

16 Nov 2022: REACH: 1/ Enforcement Project (to be done in 2023-2025) re: Evaluation of obligations for products and chemicals imported from outside the EU. 2/ Looking for comments on 12 applications for Authorisation covering 18 uses of Chromium Trioxide (CAS 1333-82-0) used in functional chrome plating, functional chrome plating with decorative character, surface treatment of aluminium alloys, and etching of plastics.

CLP: Harmonised Classification & Labelling. Comments request 2-bromo-3,3,3-trifluoroprop-1-ene (CAS 1514-82-5);

2,3-epoxypropyl o-tolyl ether (CAS 2210-79-9);

2-methyl-2H-isothiazol-3-one hydrochloride; 2-methyl-2,3-dihydro-1,2-thiazol-3-one hydrochloride (CAS 26172-54-3);

methyl oct-2-ynoate (CAS 111-12-6); and

<u>flazasulfuron (ISO);</u> 1-(4,6-dimethoxypyrimidin-2-yl)-3-(3-trifluoromethyl-2-pyridylsulfonyl)urea (CAS 104040-78-0).

23 Nov 2022: ECHA: Preliminary Market consultation: Developing New Approach Methodologies (NAM)-based tools and data, to characterise and identify hazards of chemicals. (Web Page). Questionnaire (17 Nov 2022, 4 page pdf).

30 Nov 2022: ECHA's scientific committees support limiting Lead use for outdoor shooting and fishing.

REACH: The Registrant's <u>Practical Guide</u> (Nov 2022, 32 page pdf) on 'How to act in substance evaluation' has been updated with clarifications to information concerning dossier updates during the decision-making process. The guide is now also aligned with the Practical Guide for dossier evaluation.

New substance evaluation conclusion now available for methacrylamide (CAS 79-39-0).

Reports have been published for groups of:

a/ Vinylbenzene derivatives; b/ Linear and branched alpha-beta unsaturated ketones; c/ 2-hydroxybenzenecarbonyl oxime derivatives; d/ Ethoxylated < C6 alcohols (other than methanol and ethanol); ethoxylated aromatic alcohols; e/ Hydrocarbyl

siloxanes; and f/ Acyl derivatives from alpha-amino acids other than glutamic acid, glycine or sarcosine.

CLP: Harmonised Classification & Labelling. Comments request Melaleuca alternifolia, ext. [1] Melaleuca alternifolia, essential oil; tea tree oil [2] (CAS 85085-48-9 [1], CAS 68647-73-4 [2]).

To harmonise Classification and Labelling

Two *Intentions*: a/ piperonal; 1,3-benzodioxole-5-carbaldehyde (CAS 120-57-0); & b/ sulphuryl difluoride (CAS 2699-79-8).

Two *Proposals*: a/ <u>cinnamaldehyde</u>; 3-phenylprop-2-enal; cinnamic aldehyde; cinnamal [1], (2E)-3-phenylprop-2-enal [2] (CAS 104-55-2); and b/ <u>benzobicyclon</u> - (1RS,5RS)-3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one (CAS 156963-66-5)

Biocides: ECHA's Biocidal Products Committee (BPC) considers that mechanical traps are suitable alternatives to anticoagulants for controlling indoor mice infestations.

POPs: <u>EU-wide overview and Member State reports</u> (webpage) on how the Persistent Organic Pollutants (POPs) Reg has been implemented. <u>Union Overview Report</u> (26 Oct 2022, 217p pdf)

Litigation: (23-11-2022) General Court annuls harmonised classification of Titanium Dioxide as carcinogenic (**see Note**)

<u>7 Dec 2022</u>: REACH - <u>Guidance on Data Sharing</u> updated with the Basic Principles & and practical recommendations to help companies meet their obligations. New Intention for SVHC <u>bis(4-chlorophenyl) sulphone</u> (CAS 80-07-9) (webpage).

CLP proposals for: a/ proquinazid (ISO); 6-iodo-2-propoxy-3-propylquinazolin-4(3H)-one (CAS 189278-12-4); and b/ dinotefuran (ISO); (RS)-1-methyl-2-nitro-3-(tetrahydro-3-furylmethyl)guanidine (CAS 165252-70-0). c/ A proposal has been submitted for calcium metaborate (Ca(BO $_2$)2) and calcium tetraborate (CaB $_4$ O $_7$), amorphous reaction products of boric acid with lime (EC 701-311-0, CAS -).

Occ. Exposure Limits: Scoping study report (17 Nov 2022, 87 page pdf) on the evaluation of limit values for welding fumes and fumes from other processes that generate fume in a similar way at the workplace.

Nanomaterials: New study (website) assesses Graphene's, graphene oxides, and other two-dimensional (2D) material's potential impact on health and environment.

14 Dec 2022: Highlights from Dec 2022 ECHA RAC and ECHA SEAC meetings.

REACH: Member States plan to evaluate 24 substances in 2023-2025 <u>Draft CoRAP 2023-2025</u>

A Report has been published for the <u>alkyl aryl and cyclic diaryl</u> <u>esters of phosphoric acid</u> group of substances.

Authorisation for uses of Chromium (VI) substances: register now for online information session. On 15 Feb 2023, ECHA is organising the first joint Online Session for companies applying for authorisation to use Chromium (VI). Registration is open.

CLP: Two proposals to harmonise classification and labelling submitted for: a/ Thymol (CAS 89-83-8); & b/ Eugenol (CAS 97-53-0).

Nanomaterials: Recent Study examines (Bio)degradation, persistence, & safety by design of nanomaterials.

EC: Recommendation for safe and sustainable chemicals (website) published (see separate Note).

From: https://echa.europa.eu/news-and-events/e-news-archive

ECHA: Trivalent Chromium in Decorative Plating

2 Nov 2022: Information from the 10 Oct 2022 Workshop.

Conclusions (11 off) (6 page pdf): e.g. 2/ As a technology, Cr(III) plating with decorative character is still developing; it is

regarded as a much more complex and unstable process than Cr(VI) plating with decorative character and in general consumes more Cr(III) due to a somewhat lower efficiency. 4/ Cr(III) plating with decorative character is presently fully dependent on borates due to the fact that this substance fulfils a combination of specific technical properties (e.g. smoothness of the surface, buffer function, ...). This is also the case in nickel, zinc and precious metal plating. 6/ The quantity of borates needed relative to the quantity of chrome plate achieved is relatively high.

7/ Regeneration of borates is not possible and Waste Water Treatment Plants do not eliminate borates from the waste water. Hence, at present, discharge of borates to surface waters is unavoidable. 8/ Borates regulation is expected to become stricter – SVHC candidate listing can place legal requirements in some Member States, such as Italy e.g., on discharge to surface waters. 11/ Monitoring for worker exposure only captures the total chrome. Monitoring of borates is not conducted but is possible with a cost.

Presentations (9 off): e.g. 3/ Hazard status of Cr(III) & Borates.

6/ <u>Cr(III)</u> <u>technology:</u> Function of boric acid; How are exposure & emissions of boric acid considered in the process; Impurities of Cr(VI) in Cr(III) plating. **9/** <u>Is there waste-water treatment technology to remove borates</u> & what are the costs?

From: https://echa.europa.eu/-/workshop-on-implications-of-use-of-trivalent-chromium-in-functional-plating-with-decorative-character

Canadian Chemicals Management Plan Website

Screening Assessments & Evaluations (some entries)

Oct 2022

Notice of intent on the labelling of toxic substances in products, including toxic flame retardants was published on October 29, 2022. [2022-10-29]

Nov 2022

Nitrilotriacetic Acid Trisodium Salt: The Final Screening Assessment was published. [2022-11-26]

Sodium ortho-phenylphenate: The Final Screening Assessment for [1,1'-Biphenyl]-2-ol, sodium salt (Sodium ortho-phenylphenate; SOPP) was published. [2022-11-19]

Poly(alkoxylates/ethers) Group: The Final Screening Assessment for the Poly(alkoxylates/ethers) Group was published. [2022-11-05]

Dec 2022: No Assessments or Evaluations as at the 15th Dec.

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

Chemical Management

SWA: Hazardous chemicals, are you ready for GHS 7?

1 Nov 2022 & 9 Dec 2022: The 2-year transition period from the Globally Harmonized System of Classification & Labelling of Chemicals Revision 3 (GHS 3) to Revision 7 (GHS 7) is in its final months.

From 1 Jan 2023, you must use GHS 7 to classify chemicals and prepare chemical labels and safety data sheets in Australia, unless otherwise advised by your Work/Occupational Health & Safety Regulator. Note that Western Australia's start date for GHS 7 is 31 March 2023.

Guidance material and Resources are available on the website below to help ensure you're ready for GHS 7. Some examples: <u>Changes to chemical Classifications & Labelling: GHS 7</u> (7p pdf) Transition to GHS 7 Webinar (14min 18s YouTube video)

From: www.safeworkaustralia.gov.au/media-

centre/news/hazardous-chemicals-are-you-ready-ghs-7

&: <u>www.safeworkaustralia.gov.au/media-centre/news/reminder-transition-period-adopt-ghs-7-ending-soon</u>

OECD: Chemicals Risk Mgmt – Govt Approaches

Mid Aug 2022 Data Collected: OECD Report: Government Risk Management Approaches Used for Chemicals Management.

This document provides a synthesis of the various risk management approaches and options that are used by OECD member country government chemical regulatory programmes to manage the risk of chemicals. The scope of the document focuses on the management of risks of industrial and consumer chemicals, i.e., chemicals which are not covered by specific legislations such as pesticides or pharmaceuticals.

From: www.oecd.org/chemicalsafety/risk-

management/government-risk-management-approaches-usedfor-chemicals-management.pdf (44 page pdf)

Also: Best Available Techniques (BAT) for Preventing and Controlling Industrial Pollution (as at 2021, 143 page pdf):

www.oecd.org/chemicalsafety/risk-management/cross-countryanalysis-best-available-techniques-environmental-performancelevels-thermal-power-plants-cement-textile-industries.pdf

From: www.oecd.org/chemicalsafety/

From: www.oecd.org/chemicalsafety/risk-management/

Editor: An overview document on chemicals risk management.

OECD: Nanomaterials Chemical Mgmt Webinar

Nov 2022: Webinar: Safer & Sustainable Innovation Approach (SSIA) for More Sustainable Nanomaterials & Nano-enabled products

YouTube Webinar 3 Nov 2022 (2hrs 2min)

SSIA is an approach aiming to boost safer and sustainable innovations by integrating safety and sustainability at an early stage of the design phase of innovative materials, products, applications, and processes. SSIA combines the Safe-and-Sustainable-by-Design (SSbD), Regulatory Preparedness (RP), and Trusted Environment (TE) concepts to identify and minimise sustainability impacts along with potential health and environmental risks in the innovation process.

SSIA aims to anticipate the regulatory challenges posed by innovative nanomaterials, nano-enabled products, or other advanced materials by minimising the gap between technological innovations and the development of suitable risk assessment tools and frameworks.

Also see: OECD <u>Sustainability and Safe and Sustainable by Design: Working Descriptions for the Safer Innovation Approach</u>
- OECD Series on the Safety of Manufactured Nanomaterials, No. 105 (14 Oct 2022, 12p pdf).

From: https://www.oecd.org/chemicalsafety/ (Latest News)

And: https://www.oecd.org/chemicalsafety/nanosafety/#d.en.198581

OECD: Advances in Understanding PFASs Webinar

6 Dec 2022: Webinar: Advances in Understanding Per- and Polyfluoroalkyl Substances

YouTube Webinar 6 Dec 2022 (52min)

Presentations (47 slides as a pdf)

This OECD Report provides a comprehensive overview of the chemical identities of Side-Chain Fluorinated Polymers (SCFPs)

that have been on the global market, including a non-exhaustive list of 103 SCFPs and 42 monomers.

The report comes with a separate Annex (xlsx spreadsheet) comprising five spreadsheets providing the following information: 1/ Substances Identities, 2/ Use Information, 3/ PFAS-impurity studies, 4/ Degradation Studies &

5/ SCFP Release.

From: www.oecd.org/chemicalsafety/portal-perfluorinated-

chemicals/webinars/#d.en.418532

• OECD: Side Chain Fluorinated Polymer Mgmt

Mid 2022: OECD Series on Risk Management (Mgmt) No. 73 - Synthesis Report on Understanding Side-Chain Fluorinated Polymers (SCFPs) and Their Life Cycle.

This Risk Mgmt Report summarizes efforts by the OECD/UNEP Global PFC Group, between July 2021 and April 2022, in synthesizing publicly available scientific and technical information on the life cycle of SCFPs, which are polymers with a non-fluorinated polymer backbone and with substructures that meet the OECD PFAS definition on the side chains.

The Report also provides the comprehensive overview on the chemical identities of SCFPs that have been on the global market, including a non-exhaustive list of 103 SCFPs and 42 monomers.

Risk Mgmt Report No. 73:

www.oecd.org/chemicalsafety/portal-perfluorinatedchemicals/synthesis-report-on-understanding-side-chainfluorinated-polymers-and-their-life-cycle.pdf (60 page pdf)

From: https://www.oecd.org/chemicalsafety/ (Latest News)

OECD: Portal on Per- & Poly- Fluorinated-Chemicals:

This Portal serves to facilitate the exchange of information in order to support a global transition towards safer alternatives.

a/ What are PFASs? b/ Risk reduction approaches

c/ Alternatives d/ Production and emissions

d/ Information from countries

www.oecd.org/chemicalsafety/portal-perfluorinated-chemicals/

• NTP USA: Update Newsletter – Nov 22 & Dec 22

Nov 2022:

NTP Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM)

NICEATM releases ICE 3.7.1; Symposium webinar considers population variability and susceptible populations; OPERA now accessible via QSAR Toolbox; NICEATM and ICCVAM activities at ASCCT; Recent NICEATM publication.

<u>Climate, chemicals, and Carolina focus of NCSOT annual</u> conference

At North Carolina Society of Toxicology meeting, NIEHS grantees and trainees discussed how climate change affects health outcomes.

Dec 2022

NTP Interagency Center for the Evaluation of Alternative Toxicological Methods (NICEATM)

a/ FDA USA issues final Guidance for Testing for Carcinogenicity of Pharmaceuticals (website). b/ Animal welfare information center offers resources, training in searching for alternatives. c/ Recent NICEATM publications. e.g. A new publication describes the data curation workflow for integrating data into the Integrated Chemical Environment (ICE).

From: https://ntp.niehs.nih.gov/update/2022/index.html

• EC: Safe & Sustainable Chemicals and Materials

8 Dec 2022: The European Commission (EC) adopted a Recommendation (7 page pdf) and its Annex (24 page pdf) to promote research and innovation for safer and more sustainable chemicals and materials. The proposed European framework is an important step to increase the protection of human health and the environment against hazardous substances and improve the circularity of chemicals and materials.

The 'Safe and Sustainable by Design' framework encourages innovation to replace hazardous substances in products and processes. It aims to develop new chemicals and materials, optimise or redesign production processes and the use of substances currently on the market to improve their safety and sustainability.

From: https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/recommendation-safe-and-sustainable-chemicals-published-2022-12-08 en

- **26 Oct 2022:** (44 page pdf). The current Strategic Research and Innovation Plan (SRIP) delivers on this announcement and highlights current research and innovation (R&I) areas crucial for accelerating the transition to chemicals and materials that are **S**afe and **S**ustainable **by D**esign (SSbD). E.g. Chapter 5 focuses on safe and sustainable production processes. The use stage of chemicals and materials requires R&I to enable a reliable assessment of functionality, performance, safety and sustainability, including exposure monitoring and modelling (see Chapter 6).
- 4.3. Development of Safe & Sustainable by Design Alternatives
- e.g. Research and innovation is needed in the following areas:

SSbD flame retardants: develop new flame retardants without hazard profiles that would lead to classification as Substances of Very High Concern

SSbD materials with plastic like properties: develop new materials, including biodegradable alternatives, maintaining similar or enhanced functional properties that are sufficient for the intended service and expected use as existing plastics.

SSbD surfactants: develop new surfactants addressing safety aspects along the entire life cycle and explore alternative feedstocks for increased sustainability.

SSbD solvents: develop solvent formulations without hazardous substances and toxicity aspects linked to their volatility and risks of pollution along their entire life cycle.

SSbD corrosion and fouling-resistant materials: develop new treatments or new materials inherently resistant to corrosion and fouling for the intended time of use.

SSbD plant protection and/or biocidal products: develop new plant protection and biocidal products with improved efficiency, biocompatibility and biodegradability to overcome the problems of traditional agrochemicals.

5.2. Sustainable Supply and Recycling / Upcycling of Secondary Raw Materials: Currently a very limited amount of the material resources used by the European process industry is composed of recycled and recovered materials and these are mostly downcycled to less valuable products. To move towards a more circular and sustainable industry that uses its resources strategically, which follows the waste hierarchy with no landfilling, the recycling and preferably upcycling of large amounts of secondary resources is needed.

From: https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/guidance-safe-and-sustainable-chemicals-and-materials-published-2022-10-26 en

EPA NZ: Chemical Assessments Process Update

28 Oct 2022: Amendments to the NZ Hazardous Substances and New Organisms Act (HSNO Act) will make it easier for the Environmental Protection Authority NZ (EPA NZ) to assess hazardous substances, and the process more transparent.

The amendments will allow the EPA NZ to quickly approve new hazardous substances for the same use if already approved by an international regulator. This includes approving alternative chemicals that are safer and more environmentally friendly.

Criteria for selecting appropriate international regulators are included in the amendments, and the EPA NZ must develop a list of these regulators with input from a public consultation process.

The changes also enable the EPA NZ to speed up reassessments to change the rules for using existing substances, and to temporarily restrict how a substance is used while a reassessment is being carried out.

Amendments to the HSNO Act (Nov 2022 webpage) came into force on 1 Nov 2022. E.g. Reassessments to change hazard classifications and controls for existing hazardous substances can be completed faster via a simplified process to align with an appropriate international regulator.

<u>Criteria for selecting International Regulators - NZ Legislation</u> website

- e.g. 76E (3) The Authority must not recognise an overseas body unless the Authority has considered whether -
- (a) the body operates in a manner comparable to the Authority in regulating hazardous substances; and (b) the legislative regime regulating hazardous substances in which the body operates is comparable to this Act; and (c) the information from the body is readily accessible by the Authority.

From: www.epa.govt.nz/news-and-alerts/latest-news/amended-act-will-streamline-chemical-assessments-process/

And: www.epa.govt.nz/industry-areas/hazardoussubstances/hsno-amendment-bill/

EPA NZ: Upcoming Public Consultation in 2023

Dec 2022: Amending the EPA NZ Hazardous Substances (Storage & Disposal of Persistent Organic Pollutants) Notice 2004.

The proposed amendments include: **1/** updating the requirements relating to the disposal of POPs; **2/** updating the notice to take account of the legislative reform which occurred in December 2017; **3/** adding new provisions for manufactured articles that contain POPs.

From: www.epa.govt.nz/public-consultations/upcoming-public-consultations/

• EPA NZ: Hazardous Substances Update: Oct/Nov Oct 2022 Hazardous Substances Update:

1/ HSNO (Hazardous Substances Assessments) Amendment Bill, entered into force on 1 Nov 2022. The changes will improve the processes for assessing Hazardous Substances and make them more transparent. They will also allow us to make better use of information from international regulators.

Reassessments to change hazard classifications and controls for existing chemicals will be streamlined via a simplified process.

2/ Lowered import limits decided for Hydrofluorocarbons (HFCs), a group of harmful greenhouse gases used in heat pumps, air conditioning and refrigeration.

The limit has been reduced by more than 13% for 2023 (compared with 2021 & 2022) & will be decreased further every two years, in line with NZ Ozone Layer Protection Regulations.

3/ A decision-making committee has revised the expiry of the time-limited approvals for the organophosphate pesticides Methamidophos and Fenamiphos, and declined the application to extend the approval timeframes for Diazinon.

After the expiry date, these substances will no longer be able to be imported or manufactured in New Zealand.

4/ A decision-making committee has approved changes to the hazard classifications for 125 substances containing the chemicals Tebuconazole and Propiconazole, following modified reassessments.

Nov 2022 Hazardous Substances Update:

1/ Channel Infrastructure NZ Limited has been fined \$169,000 after firefighting foam banned from use in training exercises was used multiple times at Marsden Point Oil Refinery, with foam ending up in Whangārei Harbour.

2/ A report based on the <u>risk assessments</u> (webpage) we have carried out on the use of hydrogen cyanamide will be released on 14 Dec 2022. It will also include our updated recommendations on rules for use of the substance.

3/ On 15 Dec 2022, a number of substances are being classified or reclassified under the NZ Misuse of Drugs Act 1975. Twelve of these substances will be scheduled as precursor substances, as they are used in the manufacture of illicit substances.

The following substances will join other widely-used chemicals, including Toluene, Acetone, and Hydrochloric Acid:

Hydriodic Acid; Hypophosphorous Acid; Iodine;

Phosphorous Acid; Red Phosphorus.

Subscribe to EPA NZ Haz Subs (HS) Update

From: www.epa.govt.nz/news-and-

alerts/newsletters/hazardous-substances-update/

EU Court of Justice Annuls TiO₂ H351 Classification

23 Nov 2022: The Court of Justice of the European Union.

The General Court annuls the Commission Delegated Regulation of 2019 in so far as it concerns the harmonised classification and labelling of Titanium Dioxide as a carcinogenic substance by inhalation in certain powder forms (containing 1% or more of particles of a diameter equal to or below $10\mu m$).

https://curia.europa.eu/jcms/upload/docs/application/pdf/2022-11/cp220190en.pdf (3 page pdf)

Press Release No. 190/2022:

First, the Commission made a manifest error in its assessment of the reliability and acceptability of the study on which the classification was based (specifically the RAC used a density value corresponding to the density of unagglomerated primary particles of Titanium Dioxide, which is always higher than the density of the agglomerates of nano-sized particles of that substance) and;

Second, it infringed the criterion according to which that classification can relate only to a substance that has the intrinsic property to cause cancer (the contested classification and labelling are intended to identify and notify a carcinogenic hazard of Titanium Dioxide which, in the RAC Opinion, was classified as 'non-intrinsic in a classical sense'. The carcinogenicity hazard is linked solely to certain respirable Titanium Dioxide particles, when they are present in a certain form, physical state, size and quantity, it occurs only in lung overload conditions and corresponds to particle toxicity).

From: https://curia.europa.eu/jcms/jcms/j 6/en/

Editor's Note: This change applies to both forms of respirable Titanium Dioxide CAS 13463-67-7 Rutile & CAS 1317-70-0 Anatase, as the forms & CAS No.s were not in the judgement.

CEFIC: Animal Testing Transition Roadmap Supported

22 Nov 2022: Cefic calls on stronger European leadership to ultimately replace animal testing supported by a Transition Roadmap. The number of reliable non-animal alternative methods is on the rise, but <u>Europe's regulatory acceptance of</u> alternative approaches to animal testing lags behind (12-7-21).

In the short term, the revision of REACH (Cefic webpage) and Classification, Labelling and Packaging (CLP) regulation (Cefic webpage) are key opportunities to accelerate the regulatory uptake of New Approach Methodologies (NAMs) by reflecting new science in alternative methods. But we know the road to fully replace animal testing will be a long one which will require both a short and long-term plan.

"We want to see Europe as ambitious as the US and Canada, which have committed to phasing out animal testing and have an ambitious work programme in place."

Marco Mensink, Cefic Director General

From: https://cefic.org/media-corner/newsroom/

FRV: PFAS Reduction Clinical Trial – Vic Premier's Award

21 Sept 2022: Fire Rescue Victoria (FRV) won a 2022 Victoria Premier's Sustainability Award for world-first clinical trial to reduce PFAS levels in blood.

FRV is leading the world in not only advocating for a global ban on the use of harmful Per- and Poly-Fluoroalkyl Substance (PFAS) chemicals in fire and rescue services, but offering innovative solutions that protect firefighters, community members and the environment from these chemicals.

In 2019, FRV initiated a world-first clinical trial to examine the impacts of blood and plasma donation on PFAS levels in firefighters' blood. The study found a 10% decrease in PFAS levels after blood donation and a 30% reduction following plasma donations.

Other initiatives include establishing safe PFAS threshold limits for firefighters and decontamination of fire stations, appliances and other firefighting equipment.

From: www.frv.vic.gov.au/frv-wins-2022-premiers-sustainability-award-world-first-clinical-trial

NSW Transport: Pesticide Use Notification Plan

17 Nov 2022: Feedback was requested by *Transport for NSW*, on how the community is notified when we use pesticides in public places.

Transport for NSW: uses pesticides in public places when necessary to control weeds, to protect public property from pest damage and to protect the users of public places from nuisance or danger. The term 'pesticides' includes herbicides, insecticides, fungicides, termiticides and vertebrate baits.

The Pesticide Use Notification Plan (Nov 2022, 15 page pdf) has been prepared in accordance with the requirements of the Pesticides Regulation 2017. This Plan sets out how Transport, our agencies and our contractors will notify the community of the application of pesticides in public places with the aim of meeting the community's general right to know about pesticide applications in outdoor public places.

Comment Closed 15 Dec 2022.

From: www.haveyoursay.nsw.gov.au/our-use-of-pesticides

Qld: Respirable Crystalline Silica Dust Exposure Mgmt

9 Nov 2022: <u>Managing Respirable Crystalline Silica dust exposure in construction and manufacturing of construction elements Code of Practice 2022</u> (Nov 2022, 109 page pdf)

The new Code is Australia's first Silica Dust Code of Practice for the construction industry and will commence in Queensland on 1 May 2023. It applies to all construction work as well as the manufacturing of materials such as bricks, blocks, tiles, mortar and concrete.

From: www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice/managing-respirable-crystalline-silica-dust-exposure-in-construction-and-manufacturing-of-construction-elements-code-of-practice-2022

ACCC: Reduce Li-Ion Battery Energy Hazard Risk

6 Dec 2022: The Aust. Competition & Consumer Commission (ACCC) is **seeking input** on ways to reduce the significant fire & safety risks associated with Lithium-lon batteries, which can overheat or explode, particularly when used, charged or stored incorrectly.

An <u>Issues Paper</u> (website) published 6 Dec 2022, will help the ACCC to better understand the risks posed by lithium-ion batteries and inform recommendations to reduce the chances of fires, injuries and property damage.

ACCC Lithium-ion Batteries Issues Paper (6 Dec 2022, 31p pdf)

Submissions are sought from a range of stakeholders including consumers, consumer safety advocates, industry associations, regulators, fire authorities and industry suppliers.

Lithium-lon batteries are extremely volatile and the ACCC are very concerned about the growing number of fires and injuries linked to them. We are particularly worried as these rechargeable batteries have rapidly become regular household items as they are contained in mobile phones, laptops, power tools, e-bikes and e-scooters.

During the past five years the ACCC have received over 200 product safety reports about products with Lithium-Ion batteries including more than 20 product recalls in Australia, most of which related to consumer products such as laptops and loudspeakers. Fires linked to Lithium-Ion batteries tend to escalate quickly and are very difficult to extinguish, which means there is a high risk of property damage or injuries.

Some key safety issues: a/ Manufacturing defects;

b/ Aftermarket chargers that are incompatible with the device or non-compliant; c/ Overcharging – where devices are left on charge and the battery does not protect against overcharging; d/ Overheating – when a device is stored in a hot or poorly ventilated environment; e/ Puncture – when the barrier breaks between the liquid electrolyte and the electrodes, causing the device to short-circuit

From: www.accc.gov.au/media-release/feedback-sought-onways-to-smother-fire-risks-linked-to-lithium-ion-batteries

And: https://consultation.accc.gov.au/accc/lithium-ion-batteriesissues-paper/

ACCC Warning: Potentially Deadly Solar Batteries

21 Nov 2022: The ACCC will be directly contacting almost 5000 households that are likely to have energy solar systems with dangerous LG solar batteries in the coming weeks, to continue efforts to raise awareness about safety recalls.

The batteries, which may be branded LG, SolaX, Opal, Redback, Red Earth, Eguana, and VARTA, can overheat and catch fire, causing property damage and injuries. The ACCC is reaching out to consumers who are likely to have recalled LG

batteries to warn them of the fire risk associated with the faulty batteries.

So far, about 2900 batteries have been replaced or removed from consumers' properties. A further 1400 batteries have been switched off or have had the maximum charge capacity reduced to 75% to reduce the risk overheating while waiting for a replacement or refund.

However, LG and SolaX are trying to trace around 3000 additional recalled batteries.

This recall has been updated twice to include new models, affected systems and dates of manufacture, so even if your battery was not recalled previously, you must check your battery's serial number again.

Since Oct 2019 there have been nine reported incidents involving these types of batteries in Australia resulting in property damage and one injury.

LG has also advised the ACCC that they have identified about 10,000 additional batteries that are at risk of overheating. To address this risk, LG is proposing to install diagnostic software to identify and shut down dangerous batteries, which will then be replaced for free. Electrical safety regulators are currently assessing LG's proposed diagnostic software remedy for these additional batteries.

Further information is on the Product Safety Australia website at <u>LG's recall</u> and <u>SolaX Power's recall</u>.

From: www.accc.gov.au/media-release/accc-warns-consumers-about-potentially-deadly-solar-batteries

• UNECE: GHS 43rd Session 7-9 Dec 2022 Documents

(AC.10/C.4) Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals (43rd session)

Editor: The Working Documents (14) and Informal Documents (46) raise interesting issues, so that we can all better understand how the GHS C&L is being discussed and may be changed.

From: https://unece.org/info/events/event/368936

• UNECE: DG 61st Session 28 Nov-6 Dec 2022 Documents

(AC.10/C.3) ECOSOC Sub-Committee of Experts on the Transport of Dangerous Goods (61st session).

Editor: The Working Documents (33) and Informal Documents (64) raise interesting issues, so that we can all better understand how DG Transport is being discussed and may be changed.

From: https://unece.org/info/events/event/368910

CSB Safety Guidance: Flammable Chemicals at Schools

22 Oct 2022: USA Chemical Safety Board (CSB) has urged Schools to follow Safety Guidance for Flammable Chemicals after a Fire at Dinwiddie High School in Virginia, USA.

A fire that occurred on 12 Oct 2022 in a classroom at Dinwiddie High School in Dinwiddie County, Virginia, USA during a demonstration using Methanol, a highly flammable liquid. Several people were injured by the fire. Three students and a teacher were taken to hospitals for treatment, while a fourth student was treated for injuries at the scene. One student remained in the hospital.

This incident is similar to other serious classroom fires which occurred during lab or classroom demonstrations of flames produced by burning a flammable liquid, usually methanol. In the previous cases, Methanol from bulk containers was poured directly onto flames. There was a flash back to the Methanol bulk containers, and the resulting fires injured students and others in the area.

A CSB Safety Bulletin can be found on the CSB's website, www.csb.gov/key-lessons-for-preventing-incidents-fromflammable-chemicals-in-educational-demonstrations/

From: www.csb.gov/us-chemical-safety-board-urges-schools-to-follow-safety-guidance-/

CSB Video: 2019 PES Fire & Explosion in Philadelphia

27 Oct 2022: The USA Chemical Safety and Hazard Investigation Board (CSB) released a new safety video about the fire, explosions, and toxic hydrofluoric acid (HF) release that occurred at the Philadelphia Energy Solutions (PES) refinery in Philadelphia, Pennsylvania, on 21 June 2019. The incident caused the release of over 5,000 pounds of highly toxic HF, launched a 38,000-pound vessel fragment off-site, and resulted in an estimated property damage loss of USA\$750M.

The <u>safety video</u> includes an animation of the sequence of events leading to the incident, and comments from the CSB's Interim Executive Authority Steve Owens and Lead Investigator Lauren Grim.

YouTube Video: https://youtu.be/gc8qXTh6tTY (18 min)
From: www.csb.gov/csb-releases-new-safety-video/

CSB Video: Ignored Warnings Explosion in St. Louis

7 Dec 2022: New CSB Safety Video about the fatal explosion that occurred on April 3, 2017, at the Loy-Lange Box Company in St Louis, Missouri. The incident occurred when a severely corroded pressure vessel catastrophically failed, causing an explosion that launched the pressure vessel into a neighboring building. One worker and three members of the public were fatally injured.

The Safety Video includes an animation of the sequence of events leading to the incident, and interviews with both the CSB's Interim Executive and Lead Investigator.

During its investigation, the CSB found that over the course of many years, an area of the failed pressure vessel had thinned due to a known corrosion mechanism that was poorly controlled at Loy-Lange. And the CSB found that Loy-Lange repeatedly ignored clear warnings that corrosion was causing major problems within its operations. In fact, the CSB found that prior to its failure, Loy-Lange ran the pressure vessel normally despite knowing that it was leaking.

The CSB found it was the unacceptably thin remaining material from the repair (in 2012) that failed, initiating the incident.

From: www.csb.gov/csb-releases-new-loy-lange-safety-video/

CSB Update: BP-Husky Fatal Refinery Incident, OHIO

31 Oct 2022: The CSB released information related to its ongoing investigation of the chemical release and fire at the BP-Husky Refining LLC (BPHR) Toledo refinery in Oregon, Ohio.

CSB Release: www.csb.gov/assets/1/17/News_Release_-_Octo_31_20221.pdf (2 page pdf)

At about 6:46pm on Tues, 30 Sept 2022, an accidental release of flammable chemicals ignited, creating a fire that fatally injured two employees and resulted in substantial property damage at the refinery. The CSB is examining the valves and interconnected piping associated with the refinery's Fuel Gas Mix Drum located in the Crude 1 Unit.

The Fuel Gas Mix Drum is primarily a vapour-filled vessel and is equipped with features to remove liquids that could be entrained with vapour or that otherwise enter the refinery's fuel gas system. CSB investigators are focusing on a release of flammable Naphtha from the Fuel Gas Mix Drum, based on information from various sources at the refinery.

From: www.csb.gov/bp---husky-chemical-release-and-fire-/

OSHA USA: Mgmt of Highly Haz. Chemicals Std

OSHA USA: <u>Process Safety Management of Highly Hazardous</u> Chemicals OSHA Standard

Purpose. Requirements for preventing or minimizing the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals. These releases may result in toxic, fire or explosion hazards.

From: www.osha.gov/process-safety-management

OSHA USA Quick Takes e-News

No chemical issues in the Nov 2022 & 1 Dec QuickTakes. From: www.osha.gov/quicktakes/ (chemical issues only)

Trom. www.osna.gov/quionancs/

AICIS (Industrial/Cosmetic Chemicals)

AICIS: Regulatory Notices 22 Oct to 15 Dec 2022

No AICIS Regulatory Notices 22nd Oct to 15th Dec 2022

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

AICIS: Inventory Notices 22 Oct to 15 Dec 2022

28 Oct 2022: Chemical added to the Inventory following issue of Assessment Certificate (early listing)

CAS: 24948-66-1 1-Decen-4-yne $(C_{10}H_{16}) \le 0.1$ tonne @ $\le 10\%$ OR as a fragrance component in finished consumer products at ...

16 Nov 2022: 8 Chemicals added to the Inventory after 5 years

Obligations to provide information apply. You must tell AICIS within 28 days **IF** the circumstances of your importation or manufacture (introduction) are different to those in the AICIS assessment.

CAS: 590374-68-8 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate and 2-propenenitrile

CAS: 203874-34-4 Cyclotetrasiloxane, 2,4,6,8-tetramethyl-, reaction products with 1,1'-(methylethylidene)bis[4-(2-propen-1-yloxy)benzene]

CAS: 872182-46-2 Propanedioic acid, 2-[(4-hydroxy-3,5-dimethoxyphenyl)methyl]-, 1,3-bis(2-ethylhexyl) ester

CAS: 2055490-70-3 Fatty acids, C₁₈-unsatd., dimers, di-Me esters, hydrogenated, polymers with 1,4-butanediol, 1,6-diisocyanatohexane and 2-hydroxyethyl-terminated hydrogenated polybutadiene, stearyl alc.-blocked

CAS: 144820-27-9 Neodecanoic acid, ethenyl ester, polymer with butyl 2-propenoate and ethenyl acetate

CAS: 2844332-35-8 1,2-Cyclohexanedicarboxylic acid, 1-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl] ester, polymer with butyl 2-propenoate, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate, 2,2'-(1,2-diazenediyl)bis[2-methylpropanenitrile]-initiated

CAS: 2844332-31-4 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-methylpropyl 2-methyl-2-propenoate, tert-Bu 2-ethylhexaneperoxoate- and 2,2'-(1,2-diazenediyl)bis[2-methylpropanenitrile]-initiated

(continued)

CAS: 1708937-98-7 Humic acids, polymers with acrylic acid, N,N-dimethyl-2-propenamide and 2-methyl-2-[(1-oxo-2-propen1-yl)amino]-1-propanesulfonic acid, sodium salt, peroxydisulfuric acid ([(HO)S(O)2]2O2) sodium salt (1:2)-initiated

From: www.industrialchemicals.gov.au/news-and-notices/chemicals-added-inventory-five-years-after-issue-assessment-certificate-16-november-2022

16 Nov & 13 Dec 2022: Variation of 3 Inventory Listings following Revocation of CBI approval

Obligations to provide information apply. You must tell AICIS within 28 days IF the circumstances of your importation or manufacture (introduction) are different to those in the AICIS assessment.

CAS: 2093197-30-7 1,3-Benzenedicarboxylic acid, polymer with (2E)-2-butenedioic acid, 2,2-dimethyl-1,3-propanediol, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol and hexanedioic acid, (octahydro-4,7-methano-1H-indenyl)methyl ester

From: www.industrialchemicals.gov.au/news-andnotices/variation-inventory-listing-following-revocation-cbiapproval-16-november-2022

CAS: 2861246-27-5 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 1,4-cyclohexanedimethanol, decanedioic acid, 1,2-ethanediol and 2-methyl-1,3-propanediol

CAS: 2861246-29-7 Siloxanes and Silicones, di-Me, Me hydrogen, reaction products with polypropylene glycol monoallyl ether, polymers with 1,6-diisocyanatohexane, hydrazine, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,4-butanediyl), 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane

From: www.industrialchemicals.gov.au/news-and-notices/variation-inventory-listing-following-revocation-cbi-approval-13-december-2022

15 Dec 2022: Chemicals added to the Inventory five years after issue of assessment certificate

7 chemicals added to the Inventory 5 years after issue of assessment certificate.

 $\textbf{CAS: 2004721-53-1} \quad \text{Poly(oxy-1,2-ethanediyl, .alpha.-(decyl-2-hydroxyethyl)-.omega.-hydroxy-, .omega.-} \\ C_{9\text{-}11}\text{-}branched \quad \text{alkylethers}$

CAS: 1362053-75-5 D-Glucose, reaction products with nitric acid and sodium nitrite (1:1), sodium salts

 $\begin{array}{llll} \textbf{CAS: 2055894-27-2} & \text{2-Propenoic acid, 2-methyl-, polymers with} \\ \textbf{Bu} & \text{methacrylate,} & \text{cyclohexyl} & \text{methacrylate,} & \text{ethylene} \\ \textbf{dimethacrylate,} & \textbf{Et} & \text{methacrylate} & \text{and} & \text{polyethylene} & \textbf{glycol} \\ \textbf{hydrogen sulfate 1-[(C_{11}\text{-rich }C_{10\text{-}14}\text{-branched alkyloxy})\text{methyl]-2-} \\ \textbf{(2-propen-1-yloxy)ethyl} & \text{ethers ammonium salts, potassium salts} \\ \end{array}$

CAS: 37281-68-8 2-Propenoic acid, calcium salt (2:1), polymer with 2-propenamide

CAS: 82752-08-7 Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl ester, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate

CAS: 1310559-17-1 Starch, 2-hydroxyethyl ether, polymer with 1,3-butadiene, ethenylbenzene and sodium 2-methyl-2-[(1-oxo-2-propen-1-yl)amino]-1-propanesulfonate (1:1)

CAS: 958663-82-6 Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[1,6-hexanediylbis(iminocarbonyl)]bis[.omega.-hydroxy-, di-C ₁₆₋₂₂-alkyl ethers

From: www.industrialchemicals.gov.au/news-and-notices/chemicals-added-inventory-5-years-after-issue-assessment-certificate-15-december-2022

AICIS: News and Updates 22 Oct to 15 Dec 2022 25 Oct 2022: New Inventory and Assessment Searches go live in Nov 2022.

Thanks to valuable feedback, the inventory and assessment search experiences will now have a simpler interface. Plus, inventory search results will include: **a/** 'other names' for a chemical; **b/** an easier way to view the chemical details page; **c/** a clearer explanation of any regulatory obligations on each chemical details page.

From: www.industrialchemicals.gov.au/news-and-notices/coming-soon-our-new-inventory-and-assessment-searches-go-live-november

25 Oct 2022: Print and Save the AICIS Record-Keeping Checklist as a PDF by using your web browser

AICIS record-keeping pages:

a/ Inventory-listed chemicals; b/ exempted introductions (8 types of record-keeping checklists - choose the one relevant to you)

c/ reported introductions (4 types of record-keeping checklists choose the one relevant to you) d/ assessed introductions

e/ commercial evaluation authorisations

From: www.industrialchemicals.gov.au/news-and-notices/how-save-our-record-keeping-checklists-pdf

22 Nov 2022: 'Specific Information Requirement' Intro Form

IF you are introducing an industrial chemical that's listed on the Inventory with a <u>Specific Information Requirement</u> (SIR), use the AICIS form (on the AICIS Business Services portal) to tell AICIS about it.

After you submit the SIR form, you don't need to wait for the AICIS response or follow up with AICIS. AICIS will only contact you if for any questions. There is no fee to submit this form.

The information you provide helps AICIS determine if they need to reassess a chemical.

From: www.industrialchemicals.gov.au/news-and-notices/use-form-tell-us-about-introductions-specific-information-requirement

25 Nov 2022: Categorisation Guide Nov 2022 released

AICIS have updated the 'Guide to Categorising your chemical importation and manufacture' (Categorisation Guide). This was due to the amendment of the Industrial Chemicals (General) Rules 2019, or General Rules, relating to Introductions with a combined volume of 10 kg or less in a registration year.

Main changes to the Categorisation Guide are the addition of: **a/** Introductions of 10 kg or less to Step 3 - Introductions that are in the reported category of the Categorisation Guide - including criteria that must be met; and **b/** a new page called 'Your obligations after Categorisation' to give more clarity to Introducers about their next steps after they have categorised their Introduction

Frm: www.industrialchemicals.gov.au/news-and-notices/version-20-categorisation-guide-released-november-2022

25 Nov 2022: 10 kg or Less Introductions - Amended Rules

The <u>Industrial Chemicals (General) Amendment (Introductions of 10 kg or Less) Rules 2022</u> commenced (on the 25th Nov 2022). The amended rules, made by the Assistant Minister for Health and Aged Care, follows on from our public consultation on proposed rules changes for introductions of 10 kg or less, which provide additional options relating to record keeping. (See Specific Note)

Frm: www.industrialchemicals.gov.au/news-and-notices/amended-rules-after-consultation-10-kg-or-less-introductions

25 Nov 2022: New type of Reported Introduction: ≤10 kg

Reported Introductions of ≤10 kg have reduced reporting and record-keeping obligations compared to other Reported Introduction types. To be eligible, your Reported Introduction ≤10kg must meet the Criteria in Step 3 of 'Guide to Categorising your chemical importation or manufacture'. (See Specific Note)

From: www.industrialchemicals.gov.au/news-and-notices/new-type-reported-introduction-10-kg-or-less

25 Nov 2022: Pre-Introduction Report Guidance for ≤10 kg

AICIS PIR Guidance (webpage): **a/** shows you all the questions that you must answer in the pre-introduction report form in AICIS Business Services for the type 'introductions of 10 kg or less';

b/ will help you avoid common errors; **c/** can be printed in full (use the 'printer friendly version' button on the cover page of the guide) or you can save as a PDF using your browser's print function.

From: www.industrialchemicals.gov.au/news-and-notices/new-guidance-pre-introduction-report-10-kg-or-less-reported-introductions

25 Nov 2022: Simpler Record-Keeping for Listed Introductions ≤10kg

From 25 Nov 2022, you need a simple set of records for low volume introductions of chemicals in the 'Listed' category.

Listed on the Inventory & the criteria for <u>listed introduction</u> is met

For these types of introductions, you **no longer need to obtain a written undertaking** in situations **where** the chemical's **identity is proprietary**, & you've relied on information from your overseas supplier or manufacturer to categorise the chemical.

From: www.industrialchemicals.gov.au/news-and-notices/simpler-record-keeping-listed-introductions-10-kg

28 Nov 2022: Risk-Mgmt Recommendations Register

The AICIS Risk-Management Recommendations Register is now available; and is a list of AICIS risk-management recommendations for chemicals that AICIS have Assessed and Evaluated and referred to the relevant <u>prescribed bodies</u>; which includes Australian standard-setting bodies or State & Territory agencies. It gives access to information on the status of AICIS recommendations to these bodies.

The Prescribed Bodies AICIS works with are listed on: www.industrialchemicals.gov.au/glossary/prescribed-bodies

Register: https://services.industrialchemicals.gov.au/risk-management-recommendations-register/

From: www.industrialchemicals.gov.au/news-and-notices/new-aicis-risk-management-recommendations-register

AICIS: ≤10kg Introductions - Amended Rules

25 Nov 2022: The <u>Industrial Chemicals (General) Amendment (Introductions of 10 kg or Less) Rules 2022</u> commenced (on the 25th Nov 2022).

Eligible introductions of 10 kg or less per year can now be authorised under the 'Reported' category.

Reported Introductions of 10 kg or less have reduced reporting and record-keeping obligations compared to other Reported Introduction types.

To be eligible as a Reported Introduction – 10 kg or less your Introduction must meet the criteria in Step 3 of our 'Guide to categorising your chemical importation or manufacture' (website) OR you may print a Full Guide as a pdf (from their consolidated single webpage and select Print, then 'Save as PDF' in your browser's print options. For the Editor: this created (after a moderate wait) a 183 page landscape pdf document.

Simpler record-keeping obligations for listed introductions up to 10 kg

New type of reported introductions: 10 kg or less

Guidance on submitting a pre-introduction report for 10 kg or less

When you select '10 kg or less introduction', this means:

a/ that the total volume of the industrial chemical you are introducing is 10 kg or less in a registration year; **b/** that ALL other criteria to be categorised as a Reported Introduction - 10 kg or less, at step 3 of the categorisation process are met.

3.1: introductions of 10 kg or less in a registration year

Editor: For example this includes questions about Cosmetic Use; GHS Serious Health Hazards; Nanoparticles (which may affect solids or dispersions); Fluorine containing; Persistence/ Bioaccumulation/Toxic (PBT), etc.

From:

www.industrialchemicals.gov.au/news-and-notices/amendedrules-after-consultation-10-kg-or-less-introductions

And: www.industrialchemicals.gov.au/news-and-notices/new-type-reported-introduction-10-kg-or-less

Scheduled Poisons & TGA Issues

TGA: Nicotine Vaping Reg Reform Consultation

30 Nov 2022: The TGA is seeking public comment on potential reforms to the regulation of nicotine vaping products (NVPs) in Australia. (See detailed Note under Hazardous Chemicals)

Comment closes Monday 16 Jan 2023

From: www.tga.gov.au/resources/consultation/consultation-proposed-reforms-regulation-nicotine-vaping-products

WA: Nitrous Oxide Gas Canisters – now S6 Poison

From 1 October 2022: the sale of Nitrous Oxide will be regulated under the Medicines and Poisons Act 2014, in line with new national restrictions on the sale of Nitrous Oxide.

From this date, Nitrous Oxide gas has been reclassified by the Therapeutic Goods Administration as a S6 poison. The change triggers WA regulations that affect the labelling of this gas and prevent sales to young people.

Nitrous Oxide is used as a medicine for the purposes of anaesthesia, sedation or pain management. In domestic and commercial catering settings, it is used as a propellant for whipped cream, to infuse flavours into alcoholic drinks, and to create mousses and foams.

There has been growing national concern over the apparent trend of recreational misuse of Nitrous Oxide for inhalation. The national reclassification is in response to evidence of severe and potentially irreversible neurological damage seen with heavy and persistent recreational use of the gas.

From: www.mediastatements.wa.gov.au/Pages/McGowan/202 2/09/Western-Australia-restricts-sale-of-nitrous-oxide-gascanisters.aspx

Editor: The TGA Final Decision was published on 8 Oct 2021 www.tga.gov.au/resources/publication/scheduling-decisions-final/notice-final-decisions-amend-or-not-amend-current-poisons-standard-relation-nitrous-oxide

Sched 6 - New Entry - NITROUS OXIDE except when included in Schedule 4. **Sched 4** - NITROUS OXIDE for therapeutic use. The materials considered in making this final decision are listed.

TGA: Scheduling of Medicines & Poisons Weblinks Scheduling

<u>Scheduling Committees meeting dates & decisions timeframes</u> (which provides interim and final decision links)

Scheduling basics

The Poisons Standard (the SUSMP)

Public Notices about scheduling

State/Territory scheduling information

Scheduling committees

Advisory Committee on Medicines Scheduling (ACMS)
Advisory Committee on Chemicals Scheduling (ACCS)

Contact details for enquiries about scheduling of medicines or chemicals

If your enquiry is not about scheduling of medicines or poisons, see: Contact the TGA

Enquiries: scheduling of **medicine** related substances, contact the Medicines Scheduling Secretariat

Enquiries: scheduling of **chemical** related substances (i.e. non-medicines), contact the <u>Chemicals Scheduling Secretariat</u>

From: www.tga.gov.au/how-we-regulate/ingredients-and-scheduling-medicines-and-chemicals/poisons-standard-and-scheduling-medicines-and-chemicals/scheduling/scheduling-medicines-poisons

Also: www.tga.gov.au/how-we-regulate/ingredients-andscheduling-medicines-and-chemicals/poisons-standard-andscheduling-medicines-and-chemicals/scheduling

Also: www.tga.gov.au/how-we-regulate/ingredients-and-scheduling-medicines-and-chemicals/poisons-standard-and-scheduling-medicines-and-chemicals/scheduling/public-notices-about-scheduling

Also TGA Consultation Hub: https://consultations.tga.gov.au/

Also TGA Scheduling Submissions:

www.tga.gov.au/resources/publication/scheduling-submissions

Editor's Comment: The links e.g. to the Scheduling Delegate's Final Decisions does not take you to the most recent Decisions. You must now do an extra search within a "Publications Hub"! I found it MUCH harder to navigate the website and know where I was, and maybe I have overlooked Comments or Decisions!

TGA: Poisons Standard Format & Structure Update

28 Nov 2022: From 1 Feb 2023, the Poisons Standard will have a new structure and format that improves readability and clarity.

The Office of Parliamentary Counsel, in collaboration with the TGA, redrafted the Poisons Standard to ensure it aligns with modern drafting conventions and rules for Commonwealth legislative instruments, is clearer, and is easier to understand.

The changes are in three categories:

Structure; Readability and clarity; and Formatting.

The details are listed on the website below.

e.g. The former Poisons Standard contained the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) as Schedule 1 to the former Poisons Standard. The SUSMP contained a number of Parts, with Parts 1 to 3 containing definitions and substantive provisions, Part 4 containing the Schedules, and Part 5 containing the Appendices.

The new Poisons Standard contains the content of the SUSMP within the instrument itself, not as a schedule.

From: www.tga.gov.au/update-poisons-standard-formattingand-structure *Editor:* So we can see, read and use the new Format and Structure they have converted the Oct 2022 Poisons Standard which is available with its Explanation at:

www.legislation.gov.au/Details/F2022L01433/Download

Therapeutic Goods (Poisons Standard—February 2023) Instrument 2022

Legislative Instrument (pdf | docx) 649 pages

Explanatory Statement (pdf | docx) 4 pages

Editor: There are Zip files, BUT I never include them, as Zip files can have hidden malicious executable programs in them.

Scheduling Delegate's Final Chemical Decisions

15 Nov 2022: Notice of final decision to amend (or not amend) the current Poisons Standard - Joint ACMS-ACCS #29 (6p pdf | docx)

2.1 Final decision in relation to cannabis & tetrahydrocannabinols (THCs)

The Delegate has made a final decision to confirm the interim decision **to not amend** the Poisons Standard in relation to Cannabis and Tetrahydrocannabinols.

Currently, therapeutic use of Cannabis and THCs is restricted to human use only, except for the Schedule 4 (prescription only) entry for Cannabidiol (CBD).

From: www.tga.gov.au/resources/publication/schedulingdecisions-final/notice-final-decision-amend-or-not-amendcurrent-poisons-standard-joint-acms-accs-29

18 Nov 2022: Notice of final decision to amend (or not amend) the current Poisons Standard - ACMS #37, Joint ACMS-ACCS #30, ACCS #33 (14 page pdf | docx)

3.1 Final decision in relation to cannabis and tetrahydrocannabinols (THC's)

The Scheduling Delegate acknowledged "that the toxicity data for this substance meets the Schedule 7 scheduling factors. However, given the current evidence for the benefits of the substance weighed against the risk of diversion, abuse and misuse, and Australia's obligation when a substance is included in Schedule IV to the United Nations Single Convention on Narcotic Drugs, 1961, my current view is the substance is better aligned with the Schedule 9 factors."

3.2 Final decision in relation to Lead

Schedule 10 - Amend entry for LEAD COMPOUNDS:

- a) in anti-fouling or anti-corrosive paints except in preparations containing 0.1 per cent or less of lead calculated on the nonvolatile content of the paints; or
- b) in paints (other than anti-fouling or anti-corrosive paints), tinters, inks or ink additives except in preparations containing 0.009 per cent or less of lead calculated on the non-volatile content of the paint, tinter, ink or ink additive; or
- c) for human therapeutic use except in preparations containing 10 mg/kg or less of lead.

Schedule 6 – Amend entry for LEAD COMPOUNDS except:

- a) when included in Schedule 4; when included in, or expressly excluded from, Schedule 10:
- b) in paints, tinters, inks or ink additives;
- c) in preparations for cosmetic use containing 10mg/kg or less of lead:
- d) in pencil cores, finger colours, showcard colours, pastels, crayons, poster paints / colours or coloured chalks containing 25 mg/kg or less of lead;

e) in ceramic glazes when labelled with the warning statement: CAUTION – Harmful if swallowed. Do not use on surfaces which contact food or drink.

From: www.tga.gov.au/resources/publication/schedulingdecisions-final/notice-final-decision-amend-or-not-amendcurrent-poisons-standard-acms-37-joint-acms-accs-30-accs-33

Food Chemical Issues

A1260: 2-Methyloxolane as a Solvent Processing Aid

4 Nov 2022: This Application seeks to permit 2-Methyloxolane as an extraction solvent processing aid.

Extraction solvents are used during the manufacture of foods to extract and separate components of foods, including oil and protein from oilseeds and other plant-based food sources. Extraction solvents are also used to extract other components, such as flavours, fragrances, and colours.

The Applicant has developed 2-MeOx as a safe, renewable, biomass derived extraction solvent that is produced from agricultural by-products such as corn stover, sugarcane bagasse and rice straw.

If approved, 2-MeOx will provide food manufacturers with an alternative sustainably sourced extraction solvent.

Executive Summary (2 page pdf)

From: <u>www.foodstandards.gov.au/code/applications/Pages/Application - A1260 - 2-methyloxolane-as-a-processing-aid.aspx</u>

• EFSA Guide Plan: Phthalates & Other Plasticisers

24 Nov 2022: EFSA published its scientific protocol for the hazard assessment of plasticiser substances used in Food Contact Materials (FCMs), setting out the principles for how the work will be carried out.

Such plasticisers include phthalates, structurally similar substances, & substances used to replace Phthalates in FCMs.

EFSA scientists will use the outcome of hazard assessments from appraised and integrated evidence, in their subsequent risk assessments of substances that have been prioritised, taking into account updated exposure estimates (including dietary exposure, overall exposure and contribution to exposure from FCMs).

EFSA Journal Articles from Nov 2022 & May 2022

Protocol for the hazard assessment as part of the risk assessment of phthalates, structurally similar substances and replacement substances potentially used as plasticisers in materials and articles intended to come into contact with food

Identification and prioritisation for risk assessment of phthalates, structurally similar substances and replacement substances potentially used as plasticisers in materials and articles intended to come into contact with food

Protocol for the exposure assessment as part of the risk assessment of phthalates, structurally similar substances and replacement substances potentially used as plasticisers in materials and articles intended to come into contact with food

From: www.efsa.europa.eu/en/news/phthalates-and-other-plasticisers-plan-quide-efsa-assessment

EFSA: Sulfites - Safety Concern for High Diet Intake

24 Nov 2022: EFSA's experts concluded in their updated assessment of Sulfur Dioxide (E220) and Sulfites (E221-228) that high dietary intakes of sulfites could be a safety concern.

Sulfite occurs naturally in our bodies as well as in foods such as apples, rice, onions and cabbage, and beverages such as wine.

Sulfites are added as preservatives and antioxidants (for example, to prevent browning) to a range of foodstuffs including dried fruit and vegetables, potato-based products, beer and malt beverages, wine, and fruit juices. They may also be used to halt on-going fermentation during the winemaking process.

The Panel found evidence of adverse health effects on the Central Nervous System such as a delayed response of nerve cells to stimuli, an early sign of nervous system dysfunction.

EFSA's scientists also restated their previous recommendation to further investigate hypersensitivity or intolerance among some sensitive consumers due to knowledge gaps.

Plain language summary (2 page pdf)

Scientific Opinion (24 Nov 2022 webpage with access to the EFSA Journal Full Article (28 Sept 2022, 139p html

From: www.efsa.europa.eu/en/news/sulfites-safety-concernhigh-consumers-data-lacking

EFSA Consultation: Nitrosamines in Food Draft

12 Oct 2022: Draft Opinion Explained. N-Nitrosamines are chemical compounds that can form in food as a result of food preparation and processing. They have been found in several types of foodstuffs such as cured meat products, processed fish, cocoa, beer and other alcoholic beverages. They have also been found in a variety of other foods.

Some Nitrosamines are genotoxic (may damage DNA) and carcinogenic (can cause cancer). EFSA's draft opinion assesses the risks to public health related to the presence of Nitrosamines in food.

Public consultation: Risk assessment of N-nitrosamines in food

This Public Consultation PC-0278 webpage has a document in a Zip file (if someone wants to risk downloading a Zip file).

Consultation closed 22 Nov 2022.

From: www.efsa.europa.eu/en/news/public-consultationnitrosamines-food-draft-opinion-explained

Agricultural Chemicals

APVMA: Malathion Proposed Regulatory Decision

22 Nov 2022: The APVMA has published the <u>proposed</u> regulatory decision (proposed decision) for the reconsideration of <u>Malathion</u> (also known as Maldison), an insecticide used for the control of pests in various broadacre and horticultural crops, vegetables, ornamental plants and for veterinary and domestic uses.

The APVMA is proposing to: 1/ retain malathion as an insecticide & acaricide for use in domestic, agricultural & veterinary situations; 2/ vary & affirm the active constituent approvals; e.g. amend the current APVMA standard for the active constituent to include additional impurities of toxicological concern; 3/ vary & affirm the product registrations & label approvals; e.g. remove uses to control mosquito larvae to reduce the risk to aquatic environments; remove application of malathion products by backpack ULV or backpack foggers;

Consultation closes 23 Feb 2023.

From: https://apvma.gov.au/node/106946 And: https://apvma.gov.au/node/106876

APVMA: Application Defect Notices - Updating Info

2 Dec 2022: Amendments to the Ag & Vet Chemicals Code Act enable the APVMA to, following preliminary assessment of an application, notify an applicant of minor errors in their application, and provide them with one opportunity to address those errors or submit missing information, where this can be reasonably rectified.

Previously, the APVMA was required to refuse an Application if it did not meet the conditions set out in the Ag & Vet Chemicals Code (Applic'n Reqts). Applicants then had to make a new Application, which was administratively burdensome for industry and time-consuming for the APVMA.

From: https://apvma.gov.au/node/107216

APVMA Vision: Strategic Objectives 2023 - Draft

7 Nov 2022: APVMA Vision: To be a global leader in agriculture and veterinary chemicals regulation for the benefit of Australia.

https://apvma.gov.au/sites/default/files/publication/106421-apvma strategy - draft for consultation.pdf (1 page pdf)

The APVMA headings are: 1/ Trusted regulator; 2/ Respected partner, nationally & internationally; 3/ Contemporary regulatory system; 4/ Superior 'over the horizon' capability; 5/ Operational excellence; 6/ Attracting, developing & retaining the best people.

Comment Opened: 7 Nov 2022; & Closed: 18 Nov 2022

From: https://apvma.gov.au/node/106421

The APVMA held the inaugural APVMA Consultative Forum on 18 Aug 2020, with representatives from 10 key organisations from the agricultural and veterinary chemicals (AgVet) sector.

From: https://apvma.gov.au/node/72996

EPA NZ OIA Request: Assessment of Glyphosate

8 Nov 2022: Assessment of Glyphosate (2 page pdf)

Also: www.epa.govt.nz/assets/RecordsAPI/OIA-response-8-November-2022-qlyphosate.pdf

Official Information Act (OIA) Request by NZ Environmental Law Initiative (www.eli.org.nz) received by EPA NZ on 13 Oct 2022.

Response Extracts:

"As you have noted, Glyphosate was first approved for use in Aotearoa New Zealand in the 1970s. Since that time, we have not assessed or reassessed Glyphosate as a substance. Therefore, we do not hold the information you are requesting, and we are declining your request under Section 18(e) of the NZ Official Information Act 1982, on the basis that the information you are requesting does not exist."

"There is no new evidence to suggest that the hazardous nature or the risks from using Glyphosate have changed. However, the EPA NZ has recently undertaken a Call for Information on the use of glyphosate here, to ensure it is fully informed, especially with regard to how Glyphosate is being used here, the economic implications of its use, and the social and cultural impacts."

"The EPA NZ considers that Glyphosate is safe to use, provided safety instructions on product labels are followed. This is in line with reviews by overseas agencies, including Health Canada's Pest Management Regulatory Agency and the United States Environmental Protection Agency, which have concluded that Glyphosate is unlikely to cause cancer in humans."

From: www.epa.govt.nz/resources-and-publications/official-information-act/

EPA USA: Withdrawal of the Glyphosate Interim Registration Review Decision

21 Sept 2022: This memorandum announces EPA USA's withdrawal of all remaining portions of the Glyphosate ID, including the remanded ecological portion.

On 17 June 2022, the USA Court of Appeals for the Ninth Circuit vacated and remanded the human health portion of EPA USA's interim registration review decision for Glyphosate (ID), held that EPA's failure to make an effects determination before issuing the ID violated the Endangered Species Act (ESA), and remanded without vacating the ecological portion of the ID.

A copy of the Glyphosate ID, now vacated in part and the remainder withdrawn, is posted to the Glyphosate registration review public docket EPA-HQ-OPP-2009-0361 (webpage) at https://www.regulations.gov with all the Supporting & Related Material (105 documents).

Next Steps: With respect to the vacated human health portion of the ID, in accordance with the Ninth Circuit's 17 June 2022 decision, EPA USA intends to revisit and better explain its evaluation of the carcinogenic potential of Glyphosate and to consider whether to do so for other aspects of its human health analysis. With respect to the withdrawn ecological portion of the ID, EPA USA intended to address the issues & sought remand.

Although the Glyphosate ID is now vacated in part and the remainder withdrawn, that does not automatically mean that EPA USA's underlying scientific findings regarding Glyphosate, including its finding that Glyphosate is not likely to be carcinogenic to humans, are either incorrect or cannot be used as support for a future decision following reconsideration in accordance with the Court's decision.

https://downloads.regulations.gov/EPA-HQ-OPP-2009-0361-14447/content.pdf (9 page pdf)

From: www.regulations.gov/document/EPA-HQ-OPP-2009-0361-14447

C&EN: EPA USA is Re-Doing Glyphosate Decision

26 Sept 2022: The Environmental Protection Agency USA is unable to meet a court-ordered deadline to assess the ecological risks of the herbicide Glyphosate, the agency announced 23 Sept. 2022. Rather than fixing parts of its Glyphosate assessment, as required by the court, the agency has decided to completely redo it.

Glyphosate products can remain on the market while the EPA does the assessment. The EPA expects to complete it by 2026.

The EPA USA conducted human-health and ecological risk assessments for Glyphosate under the administration of Donald J. Trump. In an <u>interim decision</u> published 31 Jan 2020, the agency concluded that glyphosate poses no risks to human health. The EPA allowed the widely-used herbicide to stay on the market with label changes to manage spray drift and herbicide resistance.

Environmental groups challenged the decision in March 2020. In June 2022, the <u>USA Court of Appeals for the Ninth Circuit ordered</u> the EPA to re-evaluate the cancer risks of Glyphosate, particularly for farmworkers. The court also ordered the agency to re-assess the ecological risks of Glyphosate, including its impact on endangered species, by 1st Oct.

From: https://cen.acs.org/environment/pesticides/EPA-punts-glyphosate-decision/100/web/2022/09

• EPA NZ: Phase-Out on 3 Pesticides is Extended

13 Oct 2022: Diazinon, fenamiphos, and methamidophos are organophosphate pesticides used on food crops, including carrots, potatoes, citrus and avocados. They are also used for biosecurity purposes.

The decision-making committee has extended the phase-out date for Fenamiphos and Methamidophos by a year to 1 July 2024.

The date for phasing out substances containing Diazinon has not changed, and they must be phased out by 1 July 2028.

There will be more restrictions on substances that contain Fenamiphos. From 1 July 2023 can only be used for biosecurity purposes.

From: www.epa.govt.nz/news-and-alerts/latest-news/dates-set-for-ban-on-trio-of-pesticides/

Also: www.epa.govt.nz/public-consultations/decided/diazinon-fenamiphos-and-methamidophos/

Rotterdam Convention: Paraquat & Methyl Bromide

23 Sept 2022: The 18th meeting of the Chemical Review Committee (CRC-18) of the Rotterdam Convention recommended that two pesticides, Paraquat and Methyl Bromide, be listed in Annex III to the Rotterdam Convention.

The CRC experts will now start developing draft decision guidance documents to accompany the recommendations on those pesticides when brought to the Convention's governing body, the Conference of the Parties.

Paraquat is a highly toxic herbicide, widely used for weed control, while Methyl Bromide is primarily applied in fumigation sites. In addition, Methyl Bromide is a potent ozone-depleting substance, controlled by the Montreal Protocol on Substances that Deplete the Ozone Layer.

F: www.pic.int/Implementation/PublicAwareness/PressReleases/CRC18PressRelease/tabid/9290/language/en-US/Default.aspx

• FOE EU: Pesticide Atlas - Fact and Figures

17 Oct 2022: The Friends of the Earth Europe (FOE EU) **Pesticide Atlas – Facts and Figures about Toxic Chemicals in Agriculture** (1st Edition), together with FOE Germany & Pesticide Action Network EU, reveals new facts and data on global pesticide use and trade, its impact on people, their health and biodiversity, and alternative solutions.

With its Green Deal, the EU's Farm to Fork Strategy asks Member States to reduce pesticide use and associated risks by 50% by 2030. EU citizens are aware of the need for pesticide reduction. 1.2 million Europeans have already signed the European Citizens' Initiative "Save Bees and Farmers" to demand more ambitious reduction targets than those proposed by the Farm to Fork Strategy. The initiative is calling for an 80% reduction in the use of chemical pesticides by 2030 and a complete phaseout by 2035.

Pesticide Atlas 2022 (17 Oct 2022, 60 pages pdf

From: https://friendsoftheearth.eu/publication/pesticideatlas/

Dangerous Goods

IMDG Code 2022 (incorporating Amendment 41-22)

8 Dec 2022 (e-Reader published): Amendment 41-22 includes Revisions to various Sections of the Code and to transport requirements for specific substances. It is mandatory as from 1 June 2022 but may be applied by Administrations in whole or in part on a voluntary basis from 1 January 2023.

From: Summary of Changes: https://existec.com/wp-content/uploads/2022/12/Amdt-41-detailed.pdf (8 page pdf)

Exis summary: Alerted by AIDGC What's Happening newsletter.

IMDG Code General Information: www.imo.org/en/OurWork/Safety/Pages/DangerousGoods-default.aspx

Frm: www.imo.org/en/publications/Pages/IMDG%20Code.aspx

IMO Distributors in Australasia:

The IMDG Code Hardcopy Book (Vol: 1 & 2) & Supplement, Hardcopy, e-reader, or an Annual Subscription digital form, can be purchased in Australia from:

Boat Books Australia (Sydney) ph: 02 9439 1133 \$402.50 ereader incl. GST (in Australia). (Once the hardcopy is published in Jan 2023, they will hold Books in AU).

www.boatbooks-aust.com.au/ & search on "IMDG Code" Email: Boatbooks @boatbooks-aust.com.au

Dandy Booksellers Australia (Gold Coast) ph: 07 5538 6983 for \$542 incl. GST + no delivery cost (in Australia), \$426 (e-reader). www.dandybooksellers.com.au/ & search on "IMDG Code" Email: Sales @dandybooksellers.com.au

SWA: Major Hazard Facilities Regulations Consultation

6 Oct 2022: The purpose of this consultation was to gather evidence to better understand stakeholder concerns with the model WHS Regulations in relation to MHFs. This will help Safe Work Australia (SWA) determine whether changes to the model WHS laws are required.

SWA particularly wanted to hear from Operators of MHF facilities in Australia and Australian MHF regulators. Feedback from members of the community with a particular interest in MHFs in their local area was also welcome.

Stakeholder suggestions were sort on potential amendments to the model WHS Regulations and non-regulatory options that will support improved application of MHF laws and consistency across jurisdictions, as well as ensuring they meet the intended policy objectives of:

- protecting workers and other persons against harm to their health, safety and welfare through the elimination or minimisation of risks arising from work,
- maintaining and strengthening the national harmonisation of laws relating to WHS, and
- facilitating a consistent national approach to WHS.

Safe Work Australia is also updating <u>Guidance material relating</u> <u>to MHFs</u> (2012 documents) and feedback on the current versions of the Guidance was also welcome.

Comment Closed 3 Nov 2022

https://engage.swa.gov.au/review-of-the-major-hazard-facilities-regulations-in-the-model-work-health-and-safety-laws

From: www.safeworkaustralia.gov.au/mediacentre/news/consultation-now-open-model-work-health-andsafety-regulations-relating-major-hazard-facilities

WorkSafe NZ: Hydrocarbon Refrigerant Tech Bulletin

8 Nov 2022: This <u>Technical Bulletin: Hydrocarbon Refrigerants</u> (Oct 2022, 2 page pdf), is aimed at businesses who design, manufacture, install, maintain, or repair air-conditioning, heat pump or refrigeration equipment that uses a Hydrocarbon Refrigerant.

An uncontrolled release or leak of Hydrocarbon Gas from refrigeration plant is a health and safety risk which has the potential to cause a serious fire or explosion.

This Guidance is to remind businesses that all equipment that uses Hydrocarbon Refrigerants must comply with the relevant safety standards and regulations.

Refrigerant Examples: R290 (Propane); R600a (Isobutane); R1270 (Propylene).

From: www.worksafe.govt.nz/about-us/news-and-media/hydrocarbon-refrigerants/

Webinar: Recent NSW Dangerous Goods Changes

12 Oct 2022 Webinar with Speaker, Matt Arkell, EPA NSW's Principal Technical Advisor for Dangerous Goods.

- Updates to the NSW Dangerous Goods transport Regulations
- The EPA NSW's Dangerous Goods regulatory program
- Upcoming changes in the ADG regulatory landscape

YouTube Video: https://youtu.be/TeVM5V aOLA (30min)

It includes: Remade DG Regulation (NSW); Tanker Maintenance Program; Tank Vehicle Inspection Manual; Inspection & Maintenance; Dangerous Situation Notifications; Prohibited Routes; Diesel on Board? Or maybe DG? Roll Stability Systems; Guidance Documents – Truck Fires; How to Prevent Fires; Transport Emergency Response Plans (TERPs);

Questions: What is NSW Doing to harmonise ADG Transport Regs? National Heavy Vehicle Regulator discussed. Division 6.2 & Class 7* DG & Tunnels?; Never carted Dangerous Goods before but have been asked to carry Lithium Batteries in a Mixed Load? Lithium Batteries.

* Class 7 (radioactive substances), are regulated under the Radiation Control Act 1990 and administered by the EPA NSW.

From: www.natroad.com.au/nsw-dangerous-goods-changes-make-webinar-a-must/news/

Also: www.epa.nsw.gov.au/your-environment/dangerous-goods

Alerted by AIDGC What's Happening newsletter.

NT: Dangerous Goods Transport Laws Change

19 Oct 2022 (WorkSafe NT): Several amendments to the Northern Territory's legislation governing Transport of Dangerous Goods by Road and Rail have been introduced.

Some examples of the key reforms introduced in the Amendment Bill include:

a/ Creating an exemption for Dangerous Goods in excepted quantities. b/ Changing the information and placarding requirements for the transport of Dangerous Goods packed in limited quantities. c/ Introducing requirements for the storage of transport documentation. d/ Changing licencing requirements to confirm that novice drivers are not entitled to a Dangerous Goods driver licence. e/ Eliminating the requirement to remove markings in cases where goods are dangerous for air or marine purposes, but are not dangerous for transportation by road or rail. f/ Introducing obligations for prime contractors relating to the parking, unloading, operation of burners and the detaching of trailers. g/ Introducing restrictions on the transportation of nominally empty storage vessels, which can be even more dangerous than when they are full of Dangerous Goods;

h/ Modernising ullage requirements in cases where vehicles are transporting dangerous goods and non-dangerous goods in tanks. i/ Introducing an additional requirement in the transport of tools of trade and Dangerous Goods for private use to avoid the risk of explosion where flammable gasses are transported in an enclosed space in a vehicle; j/ Requiring consignors, prime contractors and rail operators to comply with emergency plans in the event of a dangerous situation; k/ Exempting mobile processing units from the regulations as they are purpose built

vehicles. I/ Clarifying the insurance requirements associated with combination vehicles.

NT WorkSafe Executive Director Peggy Cheong said: "The changes will simplify transactions, and minimise compliance and training costs for businesses."

The laws were expected to commence on or before 2 Dec 2022.

From: https://worksafe.nt.gov.au/forms-and-resources/news-and-events/media-releases/2022/nts-dangerous-goods-transport-laws-change

Vic: Dangerous Goods (Storage & Handling) Regs 2022

Made 11 Oct 2022: 22-115sra authorised.pdf, 22-115sr.docx

(100 pages) Some of WorkSafe Vic's amendments are:

- Regul'n 15 Marking & labelling manufacturer & first supplier: (1) duty holders must either comply with the Dangerous Goods (Transport by Road or Rail) Regulations 2018 or the Globally Harmonised System of Classification and Labelling of Chemicals for labelling inner packaging of Dangerous Goods.
- The title of Regulation 29 (Regulation 30 in the previous Regulations) has changed from "Risks to workers" to "Risk to persons engaged by the occupier" as the name "workers" isn't used in Vic Dangerous Goods legislation.
- Regulation 39 "Protection from impact" (Regulation 40 in the previous Regulations) now includes "pipework associated with the storage and handling of Dangerous Goods".

From: https://www.legislation.vic.gov.au/as-made/statutory-rules/dangerous-goods-storage-and-handling-regulations-2022

Also see: Response to Public comment (Oct 2022, 11page pdf): www.worksafe.vic.gov.au/resources/dangerous-goods-storage-and-handling-regulations-2022-response-public-comment

These Vic Storage and Handling Regulations replaced the Vic Dangerous Goods (Storage and Handling) Regulations 2012, which would have expired on 27 Nov 2022.

Given work on remaking the Vic Storage and Handling Regs needed to commence before the outcomes of the Vic DG Act Review were known and considered, only minimal changes that do not alter obligations for duty holders were considered in-scope. This worked to ensure changes did not preempt the findings of the Vic DG Act Review, & potentially create multiple changes to the regulatory framework within a short period of time, as this would place a significant burden on industry.

Some amendments have been made to the Vic Storage and Handling Regulations as a result of the review process and comments raised during public comment.

SafeWork SA: Dangerous Substance Licence now Digital

8 Nov 2022: Application for the SA Dangerous Substance (DS) Licence must now be made by completing the <u>electronic application form via iApply</u>.

A <u>DS Licence</u> (website) is required for commercial storage of LP gas (class 2.1), flammable liquids (class 3), toxic substances (class 6) & corrosive substances (Class 8) when certain limits are exceeded.

The iApply form aims to streamline and make the application process more user friendly, whilst reducing the number of incomplete or inappropriate Notifications.

From: www.safework.sa.gov.au/news-and-alerts/news/news/2022/dangerous-substance-licences-go-digital

• WA Code of Practice: Spray Painting & Powder Coating

3 Nov 2022: This WA Code of Practice is intended to be read by a person conducting a business or undertaking (PCBU). It provides practical guidance on how to manage health and safety risks associated with spray painting and powder coating.

<u>Code of Practice - Spray Painting and Powder Coating</u> (62p pdf)

From: <u>www.commerce.wa.gov.au/publications/code-practice-</u>
spray-painting-and-powder-coating

WA Explosion: Ammonium Nitrate Emulsion Tank Trailer

24 Oct 2022: A tanker trailer carrying an Ammonium Nitrate Emulsion (ANE) caught fire then exploded on the Great Central Highway, approximately 150 kilometres east of Laverton, WA.

The Road Train consisted of a prime mover, a dolly and two aluminium tanker trailers containing approximately 34 tonnes (rear trailer) and 27 tonnes (front trailer) of ANE.

At approximately 9:30am the driver noticed black smoke coming from the rear trailer. Due to the intensity of the fire, the driver was unsuccessful when he attempted to extinguish the fire on the rear passenger side wheels of the rear trailer.

The driver disconnected the dolly and rear tanker trailer and evacuated to a safe distance. Emergency services and the mine site emergency response team attended the incident scene at a safe distance and cordoned off the roads.

At 11:33am, the tanker exploded. The explosion caused several spot fires around the site. No one was injured.

A crater, approximately 15 metres by 17 metres wide and one metre deep was formed. Shrapnel was located around the blast location with an approximately 25 kilograms piece located approximately 800 metres from the epicentre.

From: www.dmp.wa.gov.au/Documents/Dangerous-goods-goods/DGS (Oct 2022, 3p pdf)
From: www.dmp.wa.gov.au/Safety/Dangerous-goods-safety-alerts-13195.aspx

CFA (Vic): Dangerous Goods in the Country Areas

18 Mar 2022: The Victorian Government Fire Services Reform package saw the formation of Fire Rescue Victoria (FRV) on the 1st of July 2020.

FRV and CFA have signed a Service Level Deed Agreement which sees FRV provide services on behalf of CFA in relation to the built environment for the State of Victoria. These services include statutory service delivery under the Dangerous Goods and Occupational Health and Safety legislative frameworks

a/ the provision of Written Advice for fire protection systems and emergency plans under the Dangerous Goods (S&H Regs 2012

b/ the development of Emergency Plans for explosives manufacturing under the Dang. Goods (Explosives) Regs 2011

c/ the development of Emergency Plans for the handling of explosives in port areas under the Dangerous Goods (Explosives) Regs 2011

d/ the preparation and review of Emergency Plans for Major Hazard Facilities under the Occ. Health & Safety Regs 2017

e/ the preparation of Emergency Plans for Mines under the Occupational Health and Safety Regulations 2017

Fire services advice in relation to these matters is to be directed to Fire Rescue Victoria, Dangerous Goods Department or email DangerousGoods@frv.vic.gov.au.

From: www.cfa.vic.gov.au/plan-prepare/building-planning-regulations/dangerous-goods

Editor: I have not previously seen this CFA webpage and thought it relevant to include it for your information.

FRV: Hazardous Chemical Spill Incident in Victoria

21 Nov 2022: Fire Rescue Victoria (FRV) Specialist Hazmat Crews arrived on scene at Truganina, Victoria, to find that 1000L of the hazardous liquid had leaked, and 16 people had been evacuated. Wearing breathing apparatus, firefighters contained the leak and worked to make the scene safe.

From:

www.frv.vic.gov.au/specialist-hazmat-crews-scene-truganina

NSW: Explosion Injured Students at a Primary School

21 Nov 2022: 11 Students from Manly (Sydney AU) Primary School, were rushed to hospital with burns following an explosion during an outdoor science experiment known as the "black snake". The experiment involves a pile of Bicarb Soda (Sodium Bicarbonate) and Sugar being set alight to create a chemical reaction that resembles a snake coming out of sand. The winds reportedly picked up the chemicals and blew them around, burning members of the class.

From:

https://7news.com.au/news/nsw/multiple-students-injured-after-explosion-at-manly-west-public-school-c-8920834

www.news.com.au/technology/science/authorities-revealreason-science-experiment-went-horribly-wrong-at-sydneyprimary-school/newsstory/c8599b82f2e04a611dd071858c173b60

<u>www.abc.net.au/news/2022-11-21/11-children-taken-to-hospital-after-sydney-primary-school-blast/101679212</u>

CFA: Alternative Energy Incidents

CFA Brigade Magazine - Winter 2022

Alternative Energy (p31-32): Thermal runaway / Battery energy storage systems (BESS) / Electric vehicle fires / Photovoltaic solar systems

Victorian Big Battery Fire (p35-37): Summary / The battery / Incident overview / What worked well / Lessons identified / Conclusion / Questions for your brigade

Swan Hill Solar Panel Fire (p38-39): Summary / Incident overview / What worked well / Lessons identified / Conclusion / Questions for your brigade

From: <u>www.cfa.vic.gov.au/ArticleDocuments/556/Brigade-Magazine-Winter-2022-Web.pdf.aspx</u> (52 page pdf)

From:

www.cfa.vic.gov.au/about-us/publications/brigade-magazine

ABC Qld: Lithium-Ion Batteries start Tip Fires

14 Nov 2022: Incorrect waste disposal puts tip workers in danger as Lithium-Ion batteries (a power source now commonly used in household goods) start fires. Waste management workers in Central Queensland are putting out up to five fires a day caused by Lithium-Ion batteries.

Isaac Regional Council waste service manager Karl Murdoch said "There's an awful lot of items which you might not think contain lithium-ion batteries. Things like new electric lawnmowers, the electric whipper snippers, portable hand tools, some of the golf buggies, cordless vacuums & robot vacuums. Even e-scooters and vapes were causing significant problems."

One machine operator had the shock of her life when she unknowingly drove over one of the incorrectly disposed batteries. "The battery took fire, and the fire spread to all the other waste that was around".

The council has since put a worker on permanent fire watch for the job. Mr Murdoch said the scrap metal process was taking several days longer and essentially costing ratepayers more money. "Don't put it in your wheelie bin, don't conceal it when you bring it to site."

From: www.abc.net.au/news/2022-11-14/household-goods-putting-workers-in-danger/101647204

• FR NSW: Lithium-Ion Battery Warnings

21 Oct 2022: Fire and Rescue NSW (FRNSW) is warning the public to be especially cautious when handling damaged lithiumion batteries after a man was seriously injured in an explosion in Wollongong earlier this week (18 Oct 2022).

Around 1.30pm on Tues 18 Oct 2022, a worker was disposing of numerous lithium battery chip components at the North Wollongong site, when a chemical reaction occurred, causing an explosion. The worker tried in vain to douse the flames using a nearby hose.

The reaction also created a cloud of corrosive vapour which led to the man suffering second-degree burns to 20-per cent of his body, including his face and chest.

Bystanders used the hose to wash the victim down as firefighters from the Wollongong, Balgownie and Bulli Fire Stations arrived at the scene.

While the incident involved uncommon materials and processes, the public is advised to be careful when dealing with lithium-ion batteries that have been damaged.

9 minute video https://vimeo.com/762130263/181e522c0f

FR NSW: Battery & Charging Safety www.fire.nsw.gov.au/page.php?id=9389

From:

www.cfu.fire.nsw.gov.au/incident.php?record=1666060260

UFUA: Call for Govt Action on E-Vehicle Fire Risks

11 Nov 2022: The United Firefighters Union of Australia (UFUA) wants governments to help mitigate risks associated with potential electric vehicle battery fires, as sales of EVs grow.

The UFUA passed a resolution urging Australia's various levels of government to "develop policy and regulate the management of risks and hazards associated with Electric Vehicles (EVs) and Battery Energy Storage Systems (BESS)".

Mr McConville said: "When the integrity of Lithium batteries is compromised, the energy they store is released as heat, known as 'thermal runaway', and this can cause fires which are extremely difficult to extinguish while releasing an extraordinary array of deadly toxic gases.

"A typical car fire would require less than 1400 litres of water to extinguish, but an EV battery fire in an electric vehicle may require between 2000 and 30,000 litres of water."

"That massive amount of water can also be highly contaminated and would need to be captured and treated, presenting significant logistical problems for fire services and governments."

"Many homes are installing Lithium batteries as part of their solar panel energy systems and BESS are being installed in underground carparks and in apartment blocks."

"BESS fires release an array of deadly toxins including Carbon Monoxide, Hydrogen Cyanide, Hydrogen Fluoride and Cobalt." "We've already had a situation in Victoria where two firefighters suffered Cobalt poisoning after attending an EV fire, and have now been permanently disabled as a result".

"One positive point to raise is the growing proliferation of Lithium Iron Phosphate battery chemistry in big-selling Tesla, BYD & MG products, designed to be far less prone to thermal runaway."

From: www.carexpert.com.au/car-news/firefighters-union-calls-for-government-action-on-ev-fire-risks

Alerted by AIDGC What's Happening newsletter.

WA DMIRS: Lithium-Ion Battery Safety & Gifts

28 Nov 2022: Take Charge of your Safety. The message for everyone buying or receiving a Lithium-lon powered gift this Christmas.

WA Commissioner for Consumer Protection, Gary Newcombe says its critical people chasing a bargain and buying from the likes of eBay and Gumtree understand that Lithium-Ion powered devices should ONLY be used with original or compatible battery chargers. "Don't skimp on battery chargers, you can't afford the ultimate cost". "The complex chemical nature of these batteries can make them unstable when damaged, hot, overcharged or connected incorrectly. All too often a cheap, incompatible charger becomes an ignition switch."

WA Dept of Fire and Emergency Services' statistics show that rechargeable batteries have caused 300% more fires in the first half of the financial year than occurred four years ago. In NSW, the numbers are even more alarming with 180 Lithium-Ion battery fires reported this year, compared to just 16 in 2021.

a/ Charge batteries outside, but not in the sun; b/ Turn the power source off once batteries are charged; c/ Call 000 immediately - putting out the 'fire' does not stop the chemical reaction, batteries may reignite or explode several days later.

From: www.commerce.wa.gov.au/announcements/take-charge-battery-safety-christmas

Environmental Notes on Chemicals

APH: Inquiry into Ocean & Waterways Plastic Pollution

24 Oct 2022: The Federal Minister for Environment and Water, asked the Standing Committee on Climate Change, Energy, Environment and Water (CCEEW), to inquire into and report on plastic pollution in Australia's oceans and waterways.

www.aph.gov.au/Parliamentary_Business/Committees/House/Climate Change Energy Environment and Water/Plasticpollution

Terms of Reference: Inquire into / report on the impact of plastic pollution, including microplastics. There are 6 Points listed.

Submissions Received & which close Thurs, 22 Dec 2022.

e.g. Sub01: <u>Australian Wildlife Society & Plastic Ring Items</u> (4p)

From: www.aph.gov.au/Parliamentary Business/Committees/House/Climate Change Energy Environment and Water/Plastic conductor/Terms of Reference

• IChEMS Minimum Standards Released

4 Nov 2022: As agreed by Commonwealth, State and Territory environmental regulators. Industrial Chemicals Environmental Management Standard (IChEMS) Minimum Standards have been Released.

IChEMS Minimum Standards (1 page pdf, as on the webpage)

Standard 1 - Information and Awareness

Standard 2 - Risk Management Planning

Standard 3 - Harm Minimisation Controls

Standard 4 - Environmentally Safe Storage

Standard 5 – Effective Responses to Incidents

Standard 6 - Environmentally Responsible Waste Management

From: www.dcceew.gov.au/environment/protection/chemicals-management/national-standard/ichems-minimum-standards

Editor: There is only a brief statement with no detail in formation in the document (or weblinks) for each Standard!!

The IChEMS Register will be a record of chemical scheduling decisions made under the <u>Industrial Chemicals Environment</u> Management (Register) Act 2021

www.legislation.gov.au/Details/C2021C00521/51f0ef66-b0c3-4d5d-b3a5-46cc893607b5 (10 Nov 2021, 64 page pdf)

Object (a) of this Act are: to give effect to an intergovernmental scheme involving the Commonwealth and the States that relates to the establishment of nationally consistent standards to minimise risks to the environment from industrial chemicals.

IChEMS Register Principles & Explanatory Statement

7 Nov 2022: The purpose of this instrument is to determine principles that the Minister must comply with in making, varying or revoking scheduling decisions for relevant industrial chemicals.

(1) In making, varying or revoking a listing decision for a relevant industrial chemical, the Minister must consider whether the chemical has:

(a) Schedule 7 risk characteristics; or

(b) Schedule 6 risk characteristics; or

(c) Schedule 5 risk characteristics; or

(d) Schedule 4 risk characteristics; or

(e) Schedule 3 risk characteristics: or

(f) Schedule 2 risk characteristics; or

(g) Schedule 1 risk characteristics.

From the Legislative Instrument (17 page pdf)

<u>Explanatory Statement</u> (32 page pdf). The purpose of the Principles is to determine principles to be complied with by the Minister in making, varying or revoking scheduling decisions for relevant industrial chemicals.

The Principles will ensure that scheduling decisions made under the ICEMR Act have the following effect:

- industrial chemicals of greatest environmental concern will be listed in Schedules 6 and 7 to the Register. These chemicals are likely to cause serious or irreversible harm to the environment and should be replaced with less harmful alternatives wherever possible. Such chemicals without an essential use will generally be listed in Schedule 7, while chemicals with an essential use will generally be listed in Schedule 6.
- industrial chemicals listed in Schedules 2 to 5 to the Register will be of intermediate concern to the environment. These chemicals will be allocated to higher schedules as the environmental risks increase. For example, a chemical could have Schedule 5 risk characteristics if the chemical is likely to cause harm to the environment if used in Australia, and is bioaccumulative and toxic, but not persistent in the environment.
- industrial chemicals of lowest concern will be listed in Schedule 1 to the Register. These chemicals do not have risk characteristics that would place them in a higher schedule and are therefore of lowest concern to the environment.

The Attachment **(p6-p32) - Details** of the Industrial Chemicals Environmental Management (Register) Principles 2022.

e.g. The Australian PBT Criteria is available on the Environment Department's website (www.dcceew.gov.au)

e.g. A number of terms used in the Principles take their meaning from the GHS, including bioavailable, harmful to aquatic life with acute effects, harmful to aquatic life with long lasting effects, toxic to aquatic life with acute effects, toxic to aquatic life with long lasting effects, very toxic to aquatic life with acute effects and very toxic to aquatic life with long lasting effects.

e.g. As the GHS is regularly updated by the United Nations, it is appropriate that it be incorporated as existing from time to time (as permitted by subsection 23(3) of the ICEMR Act) as this will ensure that scheduling decisions are based on the most up to date scientific information.

e.g. The term *endocrine disruptor* is defined as an exogenous substance or mixture that alters the function or functions of the endocrine system and causes adverse effects in an intact organism or its progeny or populations.

e.g. The term *per- and polyfluoroalkyl substance* is defined to have the same meaning as in the document titled *Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances: Recommendations and Practical Guidance* published by the OECD.

e.g. industrial chemicals that are listed in Schedules 6 or 7 or Schedule 1 will not be listed by reference to a particular end use. Rather, it is considered that these chemicals pose a sufficiently high (or low, as the case may be) risk to the environment regardless of use.

From: www.legislation.gov.au/Details/F2022L01436

DCCEEW: Supply of Diesel Exhaust Fluid - Grant

6 Dec 2022: Maintaining our Supply of Diesel Exhaust Fluid (MOSDEF) grant program now open until 31 Jan 2023.

The Australian Government is promoting domestic production of diesel exhaust fluid (DEF) to make the critical transport energy system more resilient and the country more self-sufficient.

Australia's transport and logistics industries are reliant on DEF which reduces harmful Nitrogen Oxide emissions from diesel engines. Tight supply of technical grade urea (the main component of DEF) over the 2021 summer exposed Australia's over reliance on imports.

For more information and to Apply:

https://business.gov.au/grants-and-programs/maintaining-oursupply-of-diesel-exhaust-fluid-program

Checklist to find out what it takes to apply for a grant.

From: www.dcceew.gov.au/about/news/maintaining-our-supply-diesel-exhaust-fluid-grant-program-now-open

OECD: Global Forum on Environment & Mercury

7-8 Nov 2022: Working towards the elimination of Mercury and reducing its harmful impacts on human health and the environment.

Artisanal and Small-Scale Gold Mining (ASGM) and Vinyl Chloride Monomer (VCM) productions account for over 60% of global Mercury consumption. Other sources of Mercury emissions are coal combustion, primary non-ferrous metal production, and cement-clinker production. Once emitted or released, Mercury persists in the environment where it circulates between air, water, sediments, soil and living creatures. It can travel long distances to areas far from any production or use.

Trade and economic solutions for better regulating the flow of Mercury are critical to reducing registered Mercury use and its way into illegal uses.

Program (10 page pdf); Speakers (22 page pdf)

Day 1 YouTube Video https://youtu.be/uTaGj_vcXl8 (3hr 55min) Day 2 YouTube Video https://youtu.be/6ji2ESsb0eE (7hr 24min) Presentations (15) are downloadable from the website below.

From: www.oecd.org/chemicalsafety/globalforumonenvironment workingtowardstheeliminationofmercuryandreducingitsharmfuli mpactsonhumanhealthandtheenvironment.htm

• EPA NZ: Prohibited Use of Firefighting Foam - Court

23 Nov 2022: Channel Infrastructure NZ Limited has been fined \$169,000 after firefighting foam banned from use in training exercises was used multiple times at Marsden Point Oil Refinery, with foam ending up in Whangārei Harbour, New Zealand.

Channel Infrastructure NZ entered guilty pleas to all 14 charges, which relate to the prohibited use and unauthorised discharge of firefighting foam containing Per-and-Polyfluoroalkyl Substances (PFAS) on seven separate occasions in May and June 2021.

The company estimated that staff sprayed up to 600 litres of concentrated foam during the training exercises - up to 60,000 litres of liquid (the concentrated foam mixed with water) in total. It's not known how much then entered Whangārei Harbour, NZ.

Whangārei Harbour is valued for its environmental, cultural and economic significance to Northland, and particularly for its kaimoana (seafood) and its role as an important nursery and feeding ground for commercial fish species, as well as being used for commercial vessel navigation and a wide variety of water recreation activities.

The emergency response trailer that was used in the training exercises was only intended to be used for emergency fires. The trailer indicated on it that it contained a fluorine-free foam but in fact it contained the PFAS foam.

Judge Smith found that there was no satisfactory explanation for why the emergency response trailer was used. "Its use on seven occasions for training can only be described as extraordinary," he said.

Firefighting foams that contain PFAS are prohibited from use in training exercises. Further restrictions come into effect from December 2022. A complete phase out comes into effect in 2025, after which the use of legacy PFAS firefighting foams will be prohibited in any circumstance.

Restrictions on the use of PFAS-containing firefighting foams in New Zealand (16 Dec 2020 webpage)

From: www.epa.govt.nz/news-and-alerts/latest-news/company-fined-for-prohibited-use-of-firefighting-foam-at-marsden-point/

AMSA: Anti-Fouling Chemical "Cybutryne" Banned

28 Nov 2022: AMSA are seeking your feedback on updates to Marine Order 98 (Marine pollution – anti-fouling systems) 2013 (MO 98).

AMSA are updating our regulations to reflect the International Maritime Organization's ban on the use of the chemical Cybutryne in vessels' anti-fouling systems. Studies have shown that Cybutryne has the potential to cause adverse effects on plants and animals other than those that foul a vessel's hull.

Bans and controls on chemicals used in anti-fouling systems are implemented through the Protection of the Sea (Harmful Antifouling Systems) Act 2006 (the HAFS Act), managed by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts.

The ban on Cybutryne will begin on 1 January 2023.

From that date, ships that have pre-existing anti-fouling systems that contain Cybutryne will be required to: **a/** remove the antifouling system, or **b/** apply a coating to prevent the leaching of Cybutryne.

This is to be done at the first renewal of the anti-fouling system after 1 Jan 2023 but no later than 60 months after the last application of the Cybutryne-based anti-fouling system.

AMSA developed a summary of the changes. (4 page pdf) Proposed Marine Order in Full. (4 page pdf)

Consultation closes on 8 Jan 2023.

The Proposed Marine Order comes into effect: 1 Mar 2023.

Details: <u>www.amsa.gov.au/amendments-marine-order-98-marine-pollution-anti-fouling-systems</u>

From: www.amsa.gov.au/news-community/news-and-media-releases/have-your-say-preventing-pollution-anti-fouling-chemicals

ECAN NZ: Four Chemical Spills Contained

10 Nov 2022: Fire and Emergency New Zealand (FENZ), ChemWaste, Te Whatu Ora and Environment Canterbury NZ (ECAN NZ) responded swiftly to multiple chemical spills at an industrial site in Woolston, Christchurch on Wed 9 Nov 2022, and quickly contained and neutralised the spills which included Sulphuric Acid and Phenol. A person was hospitalised with Acid burns.

Environment Canterbury Regional Leader for Compliance Delivery, James Tricker, said: "It was incredibly lucky that the spills did not reach the drains. We need to assess what's been happening at the Site since issuing an Abatement Notice (on 10 Aug 2022), including the spills discovered yesterday, and consider what further steps we may need to take in terms of enforcement action."

From: www.ecan.govt.nz/get-involved/news-and-events/2022/collaborative-response-to-contain-chemical-spills/

• EPA Vic: Chemical Spill at Cherry Creek - Charges

27 Oct 2022: EPA Vic has charged MTAW Group Pty Ltd over a chemical spill that polluted Cherry Creek and Cherry Lake in Altona North, starting on 6 March 2022, allegedly leading to the deaths of large numbers of fish, that saw the community denied access to the creek & lake for several months

The decision to charge MTAW Group Pty Ltd and take enforcement action *is in addition* to the regulatory notices issued to them to clean-up impacts on the waterways.

The chemical detergent, known as Teric N9 (Nonylphenol Ethoxylate (NPE)), spill of approximately 12000-13000 litres was mostly contained in concrete stormwater drains & the Hume retarding basin downstream of a Laverton North industrial site.

High concentrations of pollutants upstream of Hume Drain were successfully reduced to below 100 ug/L level by extensive flushing and the high pressure washing process.

NPE is used in shampoos, cosmetics, cleaning products & has many industrial uses. NPE is very toxic to fish, because high concentrations in water cause the water Oxygen levels to drop.

More information: www.epa.vic.gov.au/for-

community/incidents/cherry-creek-and-lake (as at 9 Sept 2022)

From: www.epa.vic.gov.au/about-epa/news-media-and-updates/media-releases-and-news/epa-charges-company-over-chemical-spill-at-cherry-creek

From: www.dcceew.gov.au/about/news/australias-greenhouse-gas-emissions-march-2022-quarterly-update

• EPA Vic: Lemon Springs Waste, Dec 2022 Update

6 Dec 2022: EPA Vic's clean-up of Lemon Springs (worked on since July 2018) continues, with waste from 29 of the 32 sites removed despite significant challenges.

The onsite wastewater treatment plant has processed 1800 kilolitres of contaminated water. Eleven buried areas have been backfilled with soil that has been treated onsite.

Additional groundwater wells have been installed on the site in various locations to expand the monitoring network, but testing still shows no contamination to the groundwater.

Excavation of Acetylene cylinders is continuing, with more than 42,000 removed to date and contract negotiations are underway with the preferred supplier to dispose of the cylinders safely.

Graham Leslie White, owner of the site, was charged in late March 2022, with 118 offences under the Victorian Environment Protection Act. The charges allege that the individual permitted the transport and burial of various types of industrial waste at his rural premises at Lemon Springs. The charges further allege that this unlawful dumping created an environmental hazard and polluted both land and water on the site, amongst other matters.

For more information: www.epa.vic.gov.au/for-community/incidents/illegal-dump-site-south-of-kaniva

From: www.epa.vic.gov.au/about-epa/news-media-and-updates/media-releases-and-news/lemon-springs-december-update

Premier Vic: Vic's Recycling Systems Co-investing

29 Sept 2022: \$14.26 million of grant funding for new recycling infrastructure projects in Victoria was announced. The grant funding will give another life to 150,000 tonnes of Victoria's food and garden waste and 30,000 tonnes of soft plastics.

The Federal & Victorian Govts will also jointly invest \$3 million to IQ Renew for a large recycling facility in Altona, which will recycle 30,000 tonnes of soft plastic into food grade soft plastic and washed flakes of low-density Polyethylene, through the Recycling Modernisation Fund.

Australians use around 70 billion pieces of soft "scrunchable" plastics including food wrappers every year, but as little as 4% is recycled, with the rest ending up as landfill or litter in the environment.

From: www.premier.vic.gov.au/recycling-investment-brings-new-products-and-jobs-victoria

UN COP27: Action to Tackle Impact of Plastic on Climate

10 Nov 2022: Plastic waste has become a key driver of pollution across the world, overwhelming marine, terrestrial and aerial ecosystems. At COP27 UN representatives met to address ways to reduce Carbon Dioxide emissions by combatting plastic pollution and illegal traffic in plastic waste.

International cooperation is needed to carry out "trade route investigations and mutual legal assistance, which can help disrupt the cross-border flow of illegal plastic waste".

Approximately 75% of all plastic produced in the world eventually becomes waste, which is particularly disconcerting if one bears in mind that plastics are petroleum-based and often illegally burned for disposal.

Key solutions that are in progress include: international cooperation and partnerships across countries and UN agencies, increased law enforcement to tackle illegal plastic waste, and the development of alternative materials like glass.

If plastics are to have a place in the future, let that be in the form of reusable, biodegradable and compostable plastic substitutes. Miho Shirotori, UNCTAD Officer: "The future is not plastic. The future is plastic substitute, and trade can help the transition".

The <u>Plastic Waste Amendments</u> legally bind the 190 Parties to the Basel Convention to a strict control procedure with respect to the transboundary movement of problematic plastic wastes.

As such, the Plastic Waste Amendments are a stepping stone towards ending plastic pollution.

From: www.brsmeas.org/MediaHub/News/NewsFeatures/Combattingplasticpollutionandillegaltraffic/tabid/9367/language/en-GB/Default.aspx

EPA NSW: Plastic Packaging &Single-Use Plastic Items

1 Nov 2022: The NSW government created <u>legislation</u> which banned businesses and community groups from supplying lightweight plastic bags since 1 June 2022. The ban was **extended on 1 Nov 2022**, to include single-use plastic straws, stirrers, cutlery, bowls and plates as well as expanded polystyrene food service items, single-use plastic cotton buds, & rinse-off personal care products containing plastic microbeads.

From: www.epa.nsw.gov.au/your-environment/plastics

And: www.epa.nsw.gov.au/news/mediareleases/2022/epamedia221101-more-single-use-plasticsbanned-from-today

Vic: Single-Use Plastics Banned from 1 Feb 2023

1 Dec 2022: The ban applies to single-use plastic drinking straws, cutlery, plates, drink stirrers and cotton bud sticks made from conventional, degradable, and compostable plastics. The ban also applies to food service items and drink containers made from expanded polystyrene. These are not re-usable.

Ban does not apply to serving utensils e.g. tongs, cake servers

Ban does not apply to EPS trays for transporting raw meats, large EPS food storage boxes or EPS gelato tubs.

Paper plates which have a plastic lining or coating are exempt until Nov 2024.

<u>Factsheet: Single-Use Plastics Ban</u> (4 page pdf) <u>From: https://www.vic.gov.au/single-use-plastics</u>

• WA: Stage 2 Plan for SU & Disposable Plastic Items

23 Sept 2022: Stage 2 of the WA Plan for Plastics, identifies a second set of Single-Use (SU) or Disposable plastic items & materials for phase out from 2023:

a/ expanded polystyrene packaging; b/ degradable plastics (plastics designed to break up more rapidly into fragments under certain conditions); c/ barrier / produce bags; d/ expanded polystyrene cups; e/ coffee cups and lids; f/ lids for cups, bowls and takeaway food containers; g/ cotton buds with plastic shafts; h/ microbeads. These items are hard to recycle, are often littered and contaminate waste streams.

WA Plan for Plastics Stage 2 Discussion website.

<u>Discussion paper: Stage 2 of Western Australia's Plan for Plastics</u> (85 page pdf)

Comment Closed: 18 Nov 2022

From: www.wa.gov.au/organisation/department-of-water-and-environmental-regulation/western-australias-plan-plastics-stage-2

Note: Enforcement of WA SU & Disposable Plastic Items Stage 1 regulations commenced on 1 July 2022 for all items except for cups, started on 1 Oct 2022.

From: www.wa.gov.au/organisation/department-of-water-andenvironmental-regulation/western-australias-plan-plastics-stage-1

• IUPAC: Emerging Technologies in Chemistry - 2022

17 Oct 2022: The International Union of Pure and Applied Chemistry (IUPAC) has released the 2022 Top Ten Emerging Technologies in Chemistry. The goal of this initiative is to showcase the transformative value of chemistry and to inform the general public about the potential of chemical sciences to foster the well-being of Society & the sustainability of our planet.

These technologies having outstanding potential to open new opportunities in chemistry, sustainability, and beyond.

The 2022 finalists are (in alphabetical order): a/ Aerogels; b/ Fibre batteries; c/ Film-based fluorescent sensors; d/ Liquid solar fuel synthesis; e/ Nanoparticle mega libraries;

f/ Nanozymes; g/ Rational vaccines with SNA; h/ Sodium-ion batteries; i/ Textile displays; j/ VR-enable interactive modelling.

Discover the innovations that will transform energy, health, and materials science, to tackle the most urgent societal challenges and catalyse sustainable development: Fernando Gomollón-Bel

The 10 page article is published in the October 2022 issue of Chemistry International p6-15; or download the article pdf from www.degruyter.com/document/doi/10.1515/ci-2022-0402/html or www.degruyter.com/document/doi/10.1515/ci-2022-0402/pdf

From: https://iupac.org/iupac-2022-top-ten/

c&en: BASF is Going Deeper into Industrial Biotech

21 Nov 2022: "BASF plans to substantially increase its use of industrial biotechnology in the coming years as part of a strategy to combat high energy prices, drive down greenhouse gas emissions and environmental impact, and launch products with novel performance".

BASF, the world's largest chemical maker, aims to apply biotechnology across its product range, from building blocks like ethylene to fine chemicals used to make flavors and fragrances. "We are also thinking about new raw materials and new processes".

BASF currently relies heavily on natural gas and the crude oil distillate, naphtha, as raw materials. Transitioning to industrial biotech would enable the company to use biomaterial feedstocks, including some waste streams, instead. Such a shift would help the company reach its goal of reducing greenhouse gas emissions 25% by 2030 from 2018 levels.

BASF already uses biotechnology to make more than 3,000 products, including biopolymers, crop protection chemicals, enzymes, flavors, and vitamins.

To carry out its strategy, the company will use a broad suite of biotechnologies, including classical fermentation processes using modified microorganisms such as a bacterium or fungus that excrete a target compound when fed sugars.

BASF is also exploring turning waste gases into chemical feedstocks via a partnership with a USA biotech firm. The USA biotech firm uses microorganisms to convert waste gases—including Carbon Dioxide—into Ethanol and other feedstocks.

From: https://cen.acs.org/articles/100/i42/BASF-deeper-industrial-biotech.html

Standards & Codes

AU, BSI, DIN Standards (since 19 Aug 2022)

AS/NZS 2243.3:2022: Safety in laboratories Microbiological safety and containment. Pub: 25 Nov 2022

BS EN 13094:2020+A1:2022: Tanks for the transport of dangerous goods. Metallic gravity-discharge tanks. Design and construction. Pub: 31-10-2022

BS EN IEC 62485-5:2021: Safety requirements for secondary batteries and battery installations. Safe operation of stationary Lithium-lon batteries. Pub: 31-10-2022

BS EN ISO 13736:2021+A1:2022: Determination of flash point. Abel closed-cup method. Pub: 31-10-2022

BS EN IEC 60079-25:2022: Explosive atmospheres Intrinsically safe electrical systems. Pub: 30-09-2022

BSI <u>PD CEN/TR 15120:2022</u>: Tanks for transport of dangerous goods. Guidance and recommendations for loading, transport and unloading. Pub: 08-09-2022

DIN EN ISO 13736:2022-12: Determination of flash point - Abel closed-cup method. Pub: 01-12-2022

<u>DIN 50905-1:2022-09</u>: Corrosion of metals - Corrosion testing - Part 1: General guidance. Pub: 01-09-2022

From: https://infostore.saiglobal.com/

AU, BSI, DIN Draft Standards (since 19 Aug 2022)

<u>DR AS 3780:2022</u> The storage and handling of corrosive substances. Pub: 24 Aug 2022

22/30439851 DC BS EN ISO 374-1 Protective gloves against dangerous chemicals and micro-organisms Part 1: Terminology & performance requirements for chemical risks. Pub: 19 Oct 22

<u>DIN EN ISO 19749:2022-12 (Draft)</u> Nanotechnologies - Measurements of particle size and shape distributions by scanning electron microscopy. Pub: 1 Dec 2022

DIN EN ISO 374-1:2022-11 (Draft)

Protective gloves against dangerous chemicals and microorganisms – Part 1. Terminology and performance requirements for chemical risks. Pub: 1 Nov 2022

From: https://infostore.saiglobal.com/

BSA are also from: https://knowledge.bsigroup.com/search

Standards Australia updated its process in 2021 for downloading a Draft Standard. Visitors to *SAI Global Infostore* are no longer able to download the drafts (even though most are listed in the SAI Global search list (website as above).

All drafts are now available directly from Standards Australia <u>www.standards.org.au</u> & selecting "Public Comment.

Or direct https://standardscommunity.force.com/idppoc/s/login/ (you need to sign in first), then Select "Public Comment" for Drafts open for Public Comment.

NZ Standards & Drafts

NZ Standards: Chemical Management or Related Standards latest publications as at 14 December 2022

<u>AS/NZS 2243.3:2022</u> Safety in laboratories - Part 3: Microbiological safety and containment

BS EN 13094:2020+A1:2022 Tanks for the transport of Dangerous Goods. Metallic gravity-discharge tanks. Design and construction

BS EN ISO 23861:2022 - TC Workplace air. Chemical agent present as a mixture of airborne particles and vapour. Requirements for evaluation of measuring procedures using samplers

<u>BS ISO 16128-2:2017+A1:2022</u> Cosmetics. Guidelines on technical definitions and criteria for natural and organic cosmetic ingredients, Criteria for ingredients and products

<u>ISO 3679:2022</u> Determination of flash point – Method for flash no-flash and flash point by small scale closed cup tester

<u>ISO/TS 14074:2022</u> Environmental management — Life cycle assessment — Principles, requirements and guidelines for normalization, weighting and interpretation

PD CEN/TR 15281:2022 Potentially explosive atmospheres. Explosion prevention and protection. Guidance on inerting for the prevention of explosions

PD CEN ISO/TS 23302:2022 Nanotechnologies. Requirements and recommendations for the identification of measurands that characterise nano-objects and materials that contain them

From: www.standards.govt.nz/latest-publications/

NZ Drafts: No Chemical Management or Related Drafts Standards for public comment, as at 14 December 2022

From: www.standards.govt.nz/develop-standards/commenting-on-draft-standards/joint-draft-standards/

NFPA Codes, Reports, News

All NFPA documents are at: www.nfpa.org/codes-and-standards/standards-bevelopment/NFPA-News

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

Standards Seeking Public Development Input

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

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Choose a document for comment from the <u>List of NFPA Codes</u> & <u>Standards</u> 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**.

Seminars, Conferences, Info Sources

DGAG Discuss / Chat Meeting 15th Feb 2023

Dangerous Goods Advisory Group Discuss/Chat meeting, **Wed 15**th **Feb 2023** will be a combined Physical Meeting and Zoom Meeting, between **5.50pm** to initially meet up and then run between 6.10pm and 8.10pm (and tidy up by 8.30pm, at a Middle Park or Port Melbourne Meeting Room in the City of Port Phillip, to Covid Rules). Zoom attendees join from 5.50pm.

Convenor Contact: Jeff.Simpson@haztech.com.au

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

DGO & Haz. Materials ANZ, 15-17th Mar 2023, Melb

Wed 15th-Fri 16th March 2023: Marcus Evans Dangerous Goods Operations (DGO) & Hazardous Materials ANZ 2023 Conference. Hydrogen transport and electric batteries. The future of recycled plastics materials in dangerous goods packaging. The comprehensive review of the Australian Dangerous Goods Code.

Fri 17th **March 2023:** Full day hands-on workshop on Emergency Response Plan (ERP) for Chemical Releases.

Conference Agenda is available (provide your email address):

From: www.marcusevans.com/conferences/dgo2023

Chemical Hazard Communication Network, 22 Mar 2023 Discuss / Chat Physical & Zoom Meeting

Wed 22nd Mar 2023 5.50pm for 6.10pm to 8.10pm AU E. Summer Time Canb, Melb, Syd, Bris.

Chemical Hazard Communication Network Discuss/Chat meeting, will be a combined Physical Meeting and Zoom Meeting between 5.50 pm to initially meet up & then run between 6.10pm and 8.10pm and chat for an extra 10-20 minutes to 8.20pm whilst we physically tidy up.

Then go for a meal after at a local Thai café.

IChemE Training: Face-to-Face Training

www.icheme.org/career/training/face-to-face-training/ (Search On: Melbourne, Brisbane, Perth, New Zealand):

IChemE Training: On-Line Courses

Editor. There are about 40 on-line courses are available to purchase, as on-demand recordings for the costs shown.

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

AU GHS Classification, SDS & Label Training

William Ray at HAZCOM GHS offers a range of courses. e.g. <u>GHS SDS (Australia and NZ) (3 days)</u> (4 page pdf)

Mobile: 0412 439 334, email: Will@p-ehandley-walker.net.au

From: www.p-ehandley-walker.net.au/en/

CHCS: Advanced Preparation of SDSs

Advanced Preparation of Safety Data Sheets (EU, UK, +)

2 Sessions 28&29 June 23 https://chcs.org.uk/event-5033009
Become a member of CHCS or BADGP; plus £260.

From: https://chcs.org.uk/chemical-hazards-training

UNITAR Free Online Courses (for Chemicals)

Free Self-Paced, Open Enrolment Events (Web Based). Made available since 1 May 2022.

Risk Reduction of Chemicals

Nanomaterials Safety Course

Plastic Waste and the Basel Convention

National Implementation Plans and the Stockholm Convention on Persistent Organic Pollutants

Legislation for Chemicals Placed on the Market

<u>Sustainable Financing of Institutional Capacity for Chemicals</u> Control

From: https://event.unitar.org/by-date/self-paced-open-enrolment-events

Various Chemical Management Courses

See <u>www.haztech.com.au</u> for courses I am aware of: <u>www.haztech.com.au/hazardous-chemicals-management-training-resources-in-australia-nz/</u>

Society of Chemical Industry (UK) C&I Magazine

Editor: Join the SCI www.soci.org to receive a monthly copy of their excellent chemical (Science meets Business) information.

C&EN: Chemical & Engineering News

Sign up for C&EN's weekly newsletter. An American Chemical Society Publication. https://cen.acs.org/ and go to the bottom of the page to subscribe. Editor: Lots of interesting developments.

Past Issues: https://cen.acs.org/magazine/all-issue.html. To access 6 C&EN online articles per month there is a free signup.

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

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 31 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.

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