

•WA Selection Criteria: Haz. Waste Precincts	1
Hazardous Substances	2
• Approved Criteria for Classifying Hazardous Substances 3rd Edition [NOHSC:1008(2003)]	2
• Environmental Tobacco Smoke – NOHSC	2
• Evidence Based Guidelines on Occupational Asthma Management	2
• Nanoparticles: An Occupational Hygiene Review	2
Chemical Management	2
• Chemicals in the Home and Garden	2
• Effective Workforce Involvement in H&S in the Chemical Industry	2
NICNAS (Industrial Chemicals)	3
• NICNAS Registration Now for ALL Companies	3
• Environmental Exposure Assessment Report for Short Chain Chlorinated Paraffins (SCCPs)	3
• Relevant Tariff Classifications to Goods Containing Industrial Chemicals	3
• The <i>Handbook for Notifiers</i> Has Been Updated	3
• Polybrominated Flame Retardants - Call For Information	3
• Parabens in Deodorants and Antiperspirants	3
Food Chemical Issues	4
• Food Standards News	4
Agricultural & Veterinary Chemicals	4
• New Ag&Vet Active Constituents	4
• Dimetridazole Draft Report	4
• Carbon Disulfide - Draft Outcomes	4
• QA Scheme: Active Constituents - Agchem	5
• Efficacy Of Pool And Spa Sanitisers – Guide	5
• APVMA Std for Chlorine Releasing Chemicals	5
Dangerous Goods	5
• Proposed NSW Dangerous Goods Legislation	5
Environmental Notes on Chemicals	5
• Environmental Auditor Guidelines (EPA Vic) - 1	5
• Environmental Auditor Guidelines (EPA Vic) - 2	6
• National Pollutant Inventory – Reporting Tools	6
• Website/Newsletter for Degradable Plastics	6
• Scheduled Chemical Wastes, NSW EPA	6
• Unflued Gas Appliances & Air Quality in Aust. Homes	6
Publication	6
• A Textbook of Modern Toxicology, 3 rd Edition	6
Standards	7
• Standards – www.standards.com.au	7
• Handbooks	7
• Drafts	7
Seminars, Conferences, Courses	7
• Innovation Materials Sustainability, 18-19 Nov 04	7
• Occupational Hygiene - A Change in the Air? Dec 04	7
• Safety In Action 2005, 21 st -23 rd March, Melb	7
• Environment Sustainability in Practice, Mar 05	7
• Clean Air & Environment Conference, 5-6 th May 05	8
• Hazmat 2005 Conference, 12-13 th May, Sydney	8

• WA Selection Criteria: Haz. Waste Precincts

The WA State Government had endorsed detailed technology suitability criteria and site selection criteria developed by the Core Consultative Committee (3C) on Waste. The WA Env. Minister Dr Judy Edwards advised the criteria for waste precinct sites provide a significantly more stringent planning framework than has been considered elsewhere in Australia.

Key criteria in the new selection process include:

- a minimum 3 km buffer from the nearest sensitive land use, with a desirable buffer distance of 6 km;
- not less than 1,000m from high conservation / ecological value aquatic ecosystems;
- not within 500m of known habitats of threatened species;
- not within Public Drinking Water Source Areas, P1 to P3 priority areas identified in published development plans; and
- confined to a location where hydrogeology can be readily monitored and managed.

The Site Selection Criteria will be used initially in a Geographic Information System (GIS) electronic mapping process to identify potential locations for precincts. While this process is being undertaken community, industry and government, including local government, will be asked to nominate possible sites. All such nominations will be subjected to the GIS process, and highly prospective sites will undergo ground truthing to verify that they meet the essential criteria, and as many of the desirable criteria as possible.

From: www.3c.org.au. Media Release 12-08-04 – New Stringent Selection Criteria, and CRITERIA FINALISED - 3C Advice to Cabinet.

Hazmat & Environment Notes are prepared by:

Jeff Simpson

Hazardous Materials Consultant
Editor & Publisher

I have edited and published this newsletter since 1985, initially within the Aerospace Industry, and then to all industry using chemicals since 1991.

I work as a Regulatory Affairs and Hazardous Materials Consultant and try to put my concern about chemicals into practice, and influence everyone to make better choices of, and better use of chemicals.

My approach is to provide a short, succinct note on each hazardous material issue, sufficient to allow you to make a decision of whether it is relevant to you. If you need more information contact details / website / etc are provided.

I encourage all readers to make comment on draft regulations, codes and standards.

ISSN: 1441-5534

Hazardous Substances

• Approved Criteria for Classifying Hazardous Substances 3rd Edition [NOHSC:1008(2003)]

The Approved Criteria has been finally declared, once the errors regarding unintended mandating of Appendix 8 have been addressed (which are special classification / labelling requirements used in the European Union, but are non-mandatory in Australia).

A copy of the draft Approved Criteria (170 page) could still be downloaded as of 25 Oct 2004:

www.nohsc.gov.au/PublicComment/HazSub3rd/Download_PC.asp & right click on Attachment A. The final corrected version will need to be available by the 31st December 04.

• Environmental Tobacco Smoke – NOHSC

NOHSC has recently rehighlighted on their website their **Position Statement** originally released on 17 Oct 2002 - that exposure to environmental tobacco smoke should be excluded in all Australian workplace as soon as possible.

The recommendation took account of:

- the Air Quality Guidelines for Europe of the World Health Organisation
- the conclusions of the National Health and Medical Research Council
- position adopted in the National Tobacco Strategy, and
- the increasing prohibition in Australian jurisdictions of smoking in workplaces

A **Guidance Note** on the Elimination of Environmental Tobacco Smoke is also available as a Summary and the Full Guidance Note ([NOHSC:3019(Oct 2003)])

Both from:

www.nohsc.gov.au/NewsAndWhatsNew/ETS/default.asp

• Evidence Based Guidelines on Occupational Asthma Management

“Within UK alone 150,000 people currently have occupational asthma.”

Several thousand published papers were considered, by the BOHRF review, with 474 being of sufficient quality to be critically analysed by the research working group. The 33 evidence statements and resulting 22 principal recommendations for occupational health management, for future evidence based practice are contained in the full [Evidence Report](#) (779 Kb pdf file, 88 pages) which includes the 3 Summaries below as 3 Appendices.

Summaries of the evidence are also available separately:

- [GPs and Practice Nurses](#) (453 Kb pdf, 6 pages)
- [Occ. Health Professionals & Physicians](#) (450Kb 6 pages)
- [Managers, Workers & Worker Reps](#) (18Kb pdf, 6 pages)

The top causes of occupational asthma were:

- Isocyanates Flour and Grain
- Glutaraldehyde Wood Dust
- Latex Solder / Colophony
- Lab animals Glues & Resins

From *The British Occupational Health Research Foundation (BOHRF) website:*
<http://www.bohrf.org.uk/content/asthma.htm>

• Nanoparticles: An Occupational Hygiene Review

UK HSE Research Report RR274: ISBN 0 7176 2908 2. Nanotechnology has been growing rapidly world wide for the past decade. Nanoparticles (particles in the 1-100 nanometres in size [1-100x10⁻⁹m]) are the end products of a wide variety of physical, chemical biological, engineering, and electronic, processes some of which are novel and radically different, others of which are quite commonplace. This Research Report has reviewed and considered, nanoparticles for:

- potential routes for human exposure;
- industrial sources of occupational exposure;
- level of exposure;
- means of, and effectiveness of control measures;
- potential numbers exposed;
- ease with which gaps in knowledge could be filled;
- trends in the (potential) use of nanotechnology;
- views as to the likely impact, of the implementation of the change from research use to full-scale industrial use.

Some points made on exposure: “Many inhalation studies have indicated that the toxicity of insoluble materials increases with decreasing particle size, on a mass for mass basis.” “Dermal absorption of ultrafine particles (nanoparticles) has not been well investigated and suggested that ultrafine particles may penetrate into hair follicles where constituents of the particles could dissolve in the aqueous conditions and enter the skin.”

From: www.hse.gov.uk/research/rrhtm/rr274.htm
 770 kb pdf file, 111 page report:
www.hse.gov.uk/research/rrpdf/rr274.pdf

Chemical Management

• Chemicals in the Home and Garden

Many everyday household products and materials contain a diverse range of chemicals, including some which pose a threat to health and the environment.

The NSW EPA has created a website with links to other websites from a range of government and non-government organisations, that provide information on common chemicals used around the home and garden and how to use them safely and responsibly, including finding natural alternatives to them.

From www.epa.nsw.gov.au/chemicals/chemhomegar.htm

• Effective Workforce Involvement in H&S in the Chemical Industry

UK HSE Contract Research Report CRR291: ISBN 0-7176-1847-1. There has been a shift away from "top down" approaches to safety management. It is recognised that workforce ownership and participation in health and safety is essential for good safety management to be effective. Downsized and delayed organisations, firms now rely much more on the workforce to operate the business. “The fact that all the surveyed firms intend to extend their arrangements to other sites is a testament to their perceived benefits.”

Key lessons learnt were:

- Pilot in one area to iron out bugs
- Do not underestimate the effort or length of time involved
- Ensure management commitment is sustained
- Maintain a high level of 2-way communication

- Avoid any hidden agenda – openness is vital
- Integrate workforce involvement in then normal way of doing business
- Start small, score success and publicise it

From: www.hse.gov.uk/research/crr_htm/2000/crr00291.htm,
2.3Mb, 101 page pdf file
www.hse.gov.uk/research/crr_pdf/2000/crr00291.pdf

NICNAS (Industrial Chemicals)

• NICNAS Registration Now for ALL Companies

NICNAS Registration is now required for all importers and manufactures of industrial chemicals, **regardless of the amount** of relevant industrial chemicals imported or manufactured in that year. Tiers 2 & 3 continue as before.

The new Tier 1 registration applies to all importers and/or manufacturers who previously did not meet the Company Registration threshold level of \$500,000. From 1 September 2004 an importer and/or manufacturer importing a relevant industrial chemical for commercial purposes has been required to register with NICNAS. An annual NICNAS administration fee of \$353 applies. NICNAS has been contacting individuals and businesses, through Customs data and in Newspaper ads, to advise them of these changes and assist them in understanding the new requirements if they apply to their business activities.

Editor's Caution: All companies who have registered as Tier 1, 2 or 3 should protect themselves from companies who haven't registered as yet, as these companies are now trading outside the NICNAS regulations. This may have insurance and contract implications for your company.

As a minimum I suggest each company not already listed on the NICNAS website,
www.nicnas.gov.au/obligations/registration/register.asp,
be asked to confirm in writing, their NICNAS Registration.

For details: www.nicnas.gov.au then "Industry Page"

• Environmental Exposure Assessment Report for Short Chain Chlorinated Paraffins (SCCPs)

The need for a full environmental risk assessment was required to be carried out based on the conclusion that that SCCPs may be a risk to sediment dwelling organisms due to improper disposal of extreme pressure lubricants used in metal working fluids.

Result: A full environmental risk assessment was not required. Any future risk assessment activity in this area should focus on chlorinated paraffins in general to cover short, medium and long chain molecules.

From "Other Assessments" on:
www.nicnas.gov.au/publications/car/pec/default.asp

From Chemical Gazette 6 July 2004

• Relevant Tariff Classifications to Goods Containing Industrial Chemicals

Chapters 15 & 25-40, 47, 96, with exceptions, contain a typical list of tariff classifications that may fall within the scope of the NICNAS Registration requirements.

Importers should note that they should not limit themselves to these import classifications as some industrial chemicals are imported under chapters not listed.

For more information on these chapters see the Australian Customs Service website at:
<http://www.customs.gov.au/site/page.cfm?u=4273>

From Chemical Gazette 5 Oct 2004

• The Handbook for Notifiers Has Been Updated

The new arrangements follow the introduction of the Industrial Chemicals (Notification and Assessment) Amendment (Low Regulatory Concern Chemicals) Act 2004 (LRCC Amendment Act).

Enquiries: Hana Hamdan (Team Leader, Innovation and Compliance) on 02-8577-8855 or email to comply@nicnas.gov.au.

From Chemical Gazette 5 Oct 2004

• Polybrominated Flame Retardants - Call For Information

Polybrominated Flame Retardants have widespread use in numerous household and industrial items such as printed circuit boards, polystyrene and other plastics. This large number of dispersive uses provides many ways for PBFRs to enter the environment. Some polybrominated flame retardants are persistent, lipophilic and bioaccumulative, therefore, adversely impact the environment. Some PBFRs cause carcinogenicity, endocrine disruption and reproductive effects. Hence, current Australian use information is required to put the hazard data on PBFRs in perspective and determine further regulatory activity.

Information sought on these chemicals is:

- Quantities imported and/or manufactured;
- Products imported containing the chemical and quantities of chemical in the products;
- Uses of the chemical or the products containing the chemical; and
- Alternatives or substitutes currently being

This must be provided by all persons who have manufactured or imported one or more of the PBFRs or products containing PBFRs in the last 12 months.

23 CAS no. PBFRs are listed in the Oct 04 Gazette which are advised to only to be a guide.

The due date for responses is 17 November 2004, with a penalty for non-compliance.

Further information can be obtained from Dr Janith Wickramaratna ph: 02-8577-8846; email: janith.wickramaratna@nicnas.gov.au. PEC Report No. 20 in 2001 on PBFRs can be accessed at <http://www.nicnas.gov.au/publications/CAR/PEC/PEC20/P/EC20index.asp>.

From Chemical Gazette 5 Oct 2004

• Parabens in Deodorants and Antiperspirants

Parabens, a class of chemicals commonly used as preservatives, have been linked with breast cancer by a scientific journal, ["Concentration of Parabens in Human Breast Tumours" [Darbre, PD. et al. J. Appl. Toxicol. 24, 5-13 (2004)].

Parabens, also known as esters of p-hydroxybenzoic acid, are widely used as preservatives in food and cosmetic and therapeutic products. Some parabens are also found at low levels in nature.

The cosmetics industry has advised that many deodorant and antiperspirant products do not contain parabens as preservatives as these formulations are essentially self-preserving. Where parabens (or esters of p-hydroxybenzoic acid) occur in a product they are identified on the label.

Data from published sources indicates that parabens demonstrate weak oestrogenic activity in some experimental animals and that enzymes present in skin cells and subcutaneous fat cells are capable of breaking down topically applied parabens.

The UK study has established the presence of intact parabens in human breast tumours. However, this research alone is insufficient to establish that these chemicals caused the breast tumours or that the source of the chemicals was underarm cosmetics.

Following analysis of all available data, NICNAS believes that further research is required before a causal link between parabens in cosmetic products and breast cancer can be established.

Parabens in cosmetic products are considered safe to use when the products are used as directed.

Benzylparaben	94-18-8	Isobutylparaben	4247-02-3
Butylparaben	94-26-8	n-Propylparaben	94-13-3
Ethylparaben	120-47-8	Methylparaben	99-76-3

From NICNAS Media: www.nicnas.gov.au/news/2004

Food Chemical Issues

• Food Standards News

In 49, April / May 2004 & 51, Sept / Oct 2004 the items that caught my interest are:

- **New advice for Mercury in fish**
- **Treaty to Regulate Medicines & Therapeutic Products**
- **Australian Nutrition Database (AUSNUT)**

Contains nutrient data and associated information for approximately 4000 foods. 43 ingredients have been added to the database. The AUSNUT Special Edition 3 database is available free of charge to all interested parties via email. It comprises three data files, compressed into a zip format.

If you wish to receive the AUSNUT Special Edition 3 database, email npc@foodstandards.gov.au with your request, and include your name, business address and contact numbers.

- **Changes to Health Claims on Food Labels**
- **Advice to Fructose intolerants to Avoid Tagatose**
- **Pre-Proposal to review Standard 1.5.1 – Novel Foods**

From www.foodstandards.gov.au/ Food Standard News

Agricultural & Veterinary Chemicals

• New Ag&Vet Active Constituents

Dr Paul Sethi, Chemistry Manager, Chemistry and Residues Program, APVMA, ph: 02-6272-3987, fax: 02-6272-3551, email: paul.sethi@apvma.gov.au

1/ Azadirachtin A: The insecticidal properties of the extract are due to the presence of a mixture of structurally related tetranortriterpenoids isomers collectively known as azadirachtins, and particularly to the major isomer azadirachtin-A in the mixture.

CAS Number: 11141-17-6
Molecular Formula: C₃₅H₄₄O₁₆ Molecular Weight: 720
Schedules: Azadirachta indica extracts (neem, its extracts and derivatives) are included in S6 and S5 of the SUSDP.

From www.apvma.gov.au/gazette/gazette0408p15.pdf

2/ Potassium Bicarbonate: Potassium bicarbonate is a simple inorganic salt and is to be used as a fungicide. It has multiple sites of action.

CAS Number: 298-14-6 Molecular Formula: CHO₃K
Molecular Weight: 100.1 Schedules: Exempt

From www.apvma.gov.au/gazette/gazette0408p18.pdf

3/ Oestriol (Estriol): is a short-acting oestrogen, with application in the treatment of oestrogen-related urinary incontinence in ovariectomised dogs.

CAS Number: 50-27-1
Molecular Formula: C₁₈H₂₄O₃ Molecular Weight: 288.4
Mode of Action: Binding to oestrogen receptors in the urinary sphincter
Schedule: S4 of the SUSDP.

From: www.apvma.gov.au/gazette/gazette0409p21.pdf

• Dimetridazole Draft Report Review of Related Approvals and Registrations

Dimetridazole is a member of the 5-nitroimidazole class of chemicals. It is used in domestic and commercial poultry, pigeons and caged birds, and in pigs.

The APVMA has found that the major concern with dimetridazole relates to the risk that long-term exposure to it poses to the health and safety of consumers, workers and end-users. The draft report of the review of dimetridazole proposes that::

- it be considered a possible genotoxic chemical;
- product labels be varied to specify that its use is restricted to non-food-producing animals;
- product labels be varied to include more detailed instructions for preparation and use of products which contain it; and
- product labels be varied with new safety directions to ensure that users reduce their risk of exposure to it.

Comments and suggestions on this draft review report may be submitted to the APVMA until 7 Dec 2004.

For information, contact the APVMA Veterinary Review Contact Officer ph: 02-6272-3213 or fax: 02-6272-3218.

From: www.apvma.gov.au/gazette/gazette0409p69.shtml

• Carbon Disulfide - Draft Outcomes of the Review of Registrations

The APVMA has found that the major concern with this chemical relates to the potential for the grain fumigant to explode under certain circumstances thus posing risks to workers. The label instructions for both the pig poison and grain fumigant were deemed as inadequate to ensure protection of workers.

The label variations include:

- Providing additional information on the importance of environmental factors such as vicinity to potential ignition sources i.e. light globes, electricity and steam pipes, in minimising the potential for explosion;
- Addition of re-entry periods;
- New and revised first aid and safety directions including strengthened protective clothing requirements; and
- Information on what to do in the event of fire, spills or leaks.

For information, contact the APVMA Veterinary Review Contact Officer ph: 02-6272-3213 or fax: 02-6272-3218.

From: www.apvma.gov.au/gazette/gazette0409p74.shtml

• QA Scheme: Active Constituents – Agchem

The APVMA must be satisfied that the quality of an active constituent in an agricultural chemical product in the market is consistent with that established at the time of registration.

Under the proposed new conditions:

- the **approval holder** will be responsible for the supply of active constituent that complies with the APVMA Standard for that active constituent, as well as providing details of the batch number of the active constituent to the person to whom the active constituent is supplied.
- the **registrant** will be responsible for the supply of chemical product containing active constituent that complies with the APVMA Standard for that active constituent. The registrant will also be responsible for keeping records for the product including analysis of their active constituents or products to ensure that they comply with the relevant APVMA standards.

The purpose of the reconsideration is to apply these new conditions to all active constituent approvals and product registrations where an APVMA standard exists for that active constituent.

The proposed conditions will only formalise requirements that most registrants would already be observing, at least in part, in company quality assurance programs.

For information, contact the APVMA ph: 02-6272-3213

From: www.apvma.gov.au/gazette/gazette0409p76.shtml

• Efficacy Of Pool And Spa Sanitisers – Guide

APVMA Guideline, 28 July 2004, for applicants to be able to establish that the proposed new sanitiser is effective against the key pathogens in the major classes of human pathogenic microorganisms commonly found in swimming pool and spa pool environments, namely bacteria, protozoa, viruses and fungi. 305Kb pdf file, 6 pages.

From www.apvma.gov.au/guidelines/agguidelines.shtml

• APVMA Std for Chlorine Releasing Chemicals

Draft Standard for Listed Registration No. 01/04: Products containing Hypochlorites; Sodium Dichloroisocyanurate or Trichloroisocyanuric Acid for Use in Swimming Pools and/or Spas.

The 27 page draft covers: Definition of the Product or Class of Products p1; Chemistry & Manufacture p2-5; Label Claims & Instructions p5-27; Containers p5.

For information contact APVMA, David Hutchison ph: 02-6271-6384, fax 02-6272-3218.

From: www.apvma.gov.au/gazette/gazette0407p30.shtml

Dangerous Goods

• Proposed NSW Dangerous Goods Legislation

WorkCover NSW is working with other government agencies, industry and the wider community to update NSW's chemical management legislative framework.

This Dangerous Goods Program, is looking at legislation covering dangerous goods, explosives and major hazard facilities.

Public seminars will take place across New South Wales from **early November to early December**, in the form of information sessions. The draft Regulations will also become available when the seminars commence.

The Seminar program and Draft will be available from about the 2nd week in November from their website.

The modernised legislation will provide a hierarchy of risk management control measures that are in proportion to the level of hazard.

The new framework is based on the National Standards and are designed to ensure a nationally consistent approach, as well as addressing growing public concern about the safety and security of dangerous goods facilities.

The Dangerous Goods Legislative Reform Program involves the review and modernisation of the *Dangerous Goods Act 1975*, *Dangerous Goods (General) Regulation 1999* and the *Dangerous Goods (Gas Installations) Regulation 1998*. New regulations will be under the *Occupational Health and Safety Act 2000* and the *Explosives Act 2003*.

From:

www.workcover.nsw.gov.au/LawAndPolicy/NewLegislation/dangerous_goods.htm

Environmental Notes on Chemicals

• Environmental Auditor Guidelines (EPA Vic) -1 For the Preparation of Environmental Audit Reports on Risk to the Environment, June 2004

These are for environmental auditors on the conduct of Victorian audits and significantly extends the previous guideline, WM91/08, by providing more detailed information on when audits may be required and describing the process that auditors must use when conducting these audits.

The guidelines have primarily been prepared to assist environmental auditors in the conduct of their functions, however may also be useful for audit clients, auditees and the community.

Publication 952, 13 pages (151 Kb) with 2 extra pdf files for 2 forms, are downloadable.

From <http://www.epa.vic.gov.au/Publications/> then "Search the Catalogue" for 952.

continued

• Environmental Auditor Guidelines (EPA Vic) -2 for Conducting Environmental Audits, June 2004

This guideline contains information on roles for environmental auditors, responsibilities and independence of the environmental auditor, engagement of environmental auditors, imminent environment hazard and notification and use of the environmental auditor's expert support team.

It has primarily been prepared to assist environmental auditors in the conduct of their functions, however may also be useful for audit clients, auditees and the community.

Publication 953, 9 pages, downloadable 161 Kb pdf file.

From <http://www.epa.vic.gov.au/Publications/> then "Search the Catalogue" for 953.

• National Pollutant Inventory – Reporting Tools

The South Australian EPA NPI team has developed seven help sheets to assist NPI reporting companies to use the electronic National Reporting Tool (NRT). The pdf files are available at www.epa.sa.gov.au/npi_reporters.html#tools. The latest Jan 2004 Aust. Govt. Dept of Environment & Heritage, National Reporting Tools can be obtained from www.npi.gov.au/nrt/index.html. They are able to be used in all States and Territories except NSW.

From the websites mentioned

• Website/Newsletter for Degradable Plastics

The Aust. Govt. Dept. of Environment & Heritage has a new website and a quarterly newsletter for Degradable Plastics. They intended to provide up-to-date information on developments in the area of degradable plastics standards, product stewardship, research and product applications of relevance to Australia. Go to: www.deh.gov.au/industry/waste/degradables/. The Autumn & Spring 2004 newsletters 477 Kb & 485 Kb pdf files may be downloaded. The Spring newsletter discusses draft Australian Standards in this area: DR 04424CP & DR 04425CP.

From the DEH website mentioned

• Scheduled Chemical Wastes, NSW EPA Chemical Control Order, June 2004

For chemicals listed under schedule A (various organochlorine pesticides) the revised CCO will:

1/ regulate wastes that contain scheduled chemicals at a combined concentration above two (2) mg/kg;

2/ allow the use of scheduled chemical wastes where this use has been specifically regulated through the planning approval process and contaminated land regulations; and

3/ allow the processing of scheduled chemical wastes to a level of 50 mg/kg, where in the EPA's opinion, the waste contains a contaminant in addition to those listed as scheduled chemicals in the CCO and this contaminant is present at concentrations that prevent reuse and cannot be reduced to a concentration which would allow reuse.

From: www.epa.nsw.gov.au/chemicals/ccos.htm#scwcco

• Unflued Gas Appliances & Air Quality in Australian Homes

Australian Dept of Environment & Heritage, Technical Report No. 9, June 2004, 1.34 Mb pdf file, 59 pages, [Link](#)

Their reports practical observations (116 houses) that are the outcome of actual heater use.

In summary, the UGA Study outcomes were as follows:

- When unflued gas heaters are operating, indoor air generally exhibits substantially higher levels of nitrogen dioxide, carbon dioxide & carbon monoxide than the highest concentrations found in ambient air in Australia;
- Air pollutant levels, especially for nitrogen dioxide, were often significantly above health based indoor air quality criteria;
- Measured concentrations of nitrogen dioxide substantially resulting from the use of unflued gas heaters in several Australian settings, have revealed levels in many houses well above those associated with health effects in Australian children with asthma;
- In the homes tested, the levels of nitrogen dioxide when new or near new appliances were being operated, were not significantly different to the average levels for all heaters;
- Formaldehyde levels exceeded the NHMRC indoor air quality guideline value on 2 out of 13 occasions (15%);
- The levels measured in this study were not substantially different to those found in a late 1980's.

From:

www.deh.gov.au/atmosphere/airtoxics/report9/index.html

Publication

• A Textbook of Modern Toxicology, 3rd Edition

Edited by Ernest Hodgson, PhD, ISBN 0-471-26508-X, 577 pages, published April 2004.

This text is suitable for persons / "students with some background in chemistry, biochemistry, and animal physiology. The content is intended to lay a foundation for subsequent specialised courses in toxicology." "All of the authors are, or have been, involved in teaching a course in general toxicology at the North Carolina State University" USA.

"The biochemical bias in some chapters is based on the philosophy that progress in toxicology continues to depend on further understanding of the fundamental basis of toxic action at the cellular and molecular levels. The depth of coverage is intended to be appropriate to the beginning level."

Jeff Simpson's Comment: I have scanned through this text and decided that it is a very useful reference text for a person wanting to improve their knowledge of toxicology, as it provides for a good description of the mechanisms of how chemicals interact with the body. The better your background in chemistry, biochemistry and animal physiology the more you will get out of it. A useful reference to have by you as you prepare an MSDS, to help interpret the data in Section 11 Toxicological Information.

Its broad headings are: I/ Introduction p1-30; II/ Classes of Toxicants p31-74; III/ Toxicant Processing In Vivo p75-212; IV/ Toxic Action p213-260; V/ Organ Toxicity p261-350; VI/ Applied Toxicology p351-438; VII/ Environmental Toxicology p439-518. More details of the contents can be found on the Wiley-VCH website below.

Extracts from the Book's Preface are in "quote" marks.

Cost Aust \$150. Published and available from John Wiley and Sons, Australia, ph: 1800-777-474 / 02-9856-0200, website: www.johnwiley.com.au, email: Sydney@johnwiley.com.au.

Further Information go to www.wiley-vch.de/publish/en/ and search on the ISBN.

DR 04476 CP: Emergency procedure guide - Transport - Part 4.2.001: Aluminium alkyls and aluminium alkyl halides
DR 04477 CP: Emergency procedure guide - Transport - Part 5.1.004: Calcium hypochlorite
DR 04478 CP: Emergency procedure guide - Transport - Part 8.0.005: Acetic anhydride
DR 04479 CP: Emergency procedure guide - Transport - Part 9.0.001: Polymeric beads, expandable

All the above Draft EPGs - 27 Sept 04, 2 pages, free pdfs

Standards

- **Standards – www.standards.com.au**

AS/NZS 4360:2004: Risk Management

Provides a generic guide for managing risk. It may be applied to a wide range of activities or operations of any public, private or community enterprise, or group. ISBN 0-7337-5904-1, 31 Aug 04, 28 pages, \$77.22 pdf

AS 1678.2.1.010-2004: Emergency Procedure Guide – Transport Butadienes, inhibited, ISBN 0-7337-6231-X, 18 Aug 04, 2 pages, \$21.38

AS 4484-2004: Gas Cylinders for Industrial, Scientific, Medical & Refrigerant Use - Labelling & Colour Coding. ISBN 0-7337-6228-X, 13 Aug 04, 19 pages, \$54.65.

- **Handbooks**

HB 76-2004: Dangerous Goods - Initial Emergency Response guide

Updated to include the 13th edition 'Orange book' UN Numbers. Note: When the ADG 7th Edition is published at the end of 2005 it will be aligned with the 14th edition "Orange Book" so this Handbook will need to be updated again. ISBN 0-7337-6232-8, 19 Aug 04, 277 pages, \$47.92 pdf, \$53.24 hardcopy.

HB 436:2004 (Guidelines to AS/NZS 4360:2004): Risk Management Guidelines Companion to AS/NZS 4360:2004. ISBN 0-7337-5960-2, 31 Aug 04, 116 pages, \$77.22 pdf

HB 203:2004: Environmental Risk Management - Principles and Process

It is based on the generic risk management process developed in AS/NZS 4360, Risk management, and offers a clear, consistent model and an integrated framework for ERMA. ISBN 0-7337-6251-4, 23 Sept 04, 93 pages, \$54.65

HB 205-2004: OHS Risk Management Handbook

Based on the risk management process set out in AS/NZS 4360:2004 for managing occupational health and safety risks. ISBN 0-7337-5769-3, 24 Sept 04, 65 pages, \$64.55

HB 206-2004: Initial Environmental Review (IER)

A means of determining an organisation's position in relation to the environment and its environmental aspects and impacts, and as a baseline for establishing an Environmental Management System. ISBN: 0-7337-6274-3, 6 Oct 04, 34 pages, \$54.65

- **Drafts**

DR 04405: Installation and use of inert gases for beverage dispensing. 25 Aug 04, 51 pages, free pdf.

DR 04474 CP: Emergency procedure guide - Transport - Part 0.0.001: Vehicle fire

DR 04475 CP: Emergency procedure guide - Transport - Part 3.0.015: Formaldehyde solution, flammable

Seminars, Conferences, Courses

- **Innovation || Materials || Sustainability, 18-19 Nov 04 Melbourne Conference**

Organised by the Association for the Advancement of Sustainable Materials in Construction (AASMIC), in conjunction with the RMIT University, Centre for Design.

Covers: 1/ How much do materials matter in sustainable construction? 2/ How are leading project teams selecting 'sustainable' materials? 3/ What are the emerging directions in the regulatory sector? 4/ What are the needs of the sector in terms of tools, technologies, research and development to make sustainable design easier? 5/ Network groups.

Cost: Standard \$330, Student \$88. For topic details and a registration brochure go to <http://www.aasmic.org> and select Conferences.

- **Occupational Hygiene - A Change in the Air?**

4-8 Dec 2004 - AIOH 2004 Conference at Fremantle, WA. To consider the broadening role of Occupational Hygienists to monitor and assess workplace hazards that may impact on employees, and also the environment & public outside the workplace. *Key Topics:* Addressing Risk: Occupational & Environmental; "What do the Numbers Mean?"; Legislation, Interpretation & Practice

Contact AIOH, ph: 61-3-9335-2577, email / website: admin@aioh.org.au / www.aiohconference2004.org.au

- **Safety In Action 2005, 21st-23rd March, Melb**

There will be Aviation Dangerous Goods, Current Safety Issues in Emergency Services, Risk Management, Safety in Design, etc. SIA will include a large Trade Show. Organised by the Safety Institute of Australia (Vic).

One day costs approx. \$350. For details contact the SIA Conference Organiser ph: 03-9654-7773, email: safety@aec.net.au, website: www.safetyinaction.net.au.

- **Environment Sustainability in Practice, Mar 05**

EIANZ Conference" Christchurch, New Zealand Tues 29 March - Fri 1 April 2005 Organised by the Environment Institute of Australia & New Zealand. Themes are:

1. Community and Indigenous Resource Management
2. Industry and Environmental Management Systems
3. Systems Thinking and Environmental Management
4. Assessment and Reporting
5. Communication, Education and Dialogue

Conference details and costs will be available 1st Nov 2004. From www.conferenceteam.co.nz/eianz/ & www.eianz.org/

• **Clean Air & Environment Conference, 5-6th May 05 Tasmania.** Wrest Point Casino, Hobart

Covers: Climate Change & Greenhouse Effects; Emissions Inventory; Measurement and Monitoring; Modelling & Meteorology.

Includes a Trade Exhibition from the 3-6th May.

Registration \$900 (no accommodation). For details contact Conventionwise: email: mail@conventionwise.com.au ph: 03-6234-1424

• **Hazmat 2005 Conference, 12-13th May, Sydney**

Covers Dangerous Goods; Hazardous Substances; Global Harmonisation; NICNAS, Waste Disposal; Emergency Response; Security; Liability Issues; etc. With good networking opportunities with the speakers.

Cost \$770, Members of Supporting Organisations \$660, All Distance Attendees \$550. Contact Fire Protection Assoc'n of Australia (FPAA) ph: 03-9890-1544, fax: 03-9890-1577, email: amym@fpaa.com.au website: www.fpaa.com.au

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