

# CHEM WATCH

A T K Y N A S T O N



## CHEMWATCH NEWSLETTER QUARTERLY CD RELEASE 2003/1

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**Dear ChemWatch User,**

**Please find enclosed the newest release of the ChemWatch Package, CD 2003/1.**

## ChemWatch Program Developments

### OECD/New Zealand legislation

Following on from discussions on our recent round of training courses in New Zealand, we present here the first draught of our NZ MSDS, including our determination of the HSNO codes and Phrases. The New Zealand legislation for toxic and Ecotoxic materials is the first national legislation modeled on the OECD criteria, which is the next proposed world standard. This is due for adoption within the next ten years, although it must be said that it has been within the next ten years for nearly ten years now.

At present the classification for Toxicity is active only for materials where we have access to data through RTECS, the Register of Toxic Effects of Chemicals for the material or ingredients. For consistency we have also drawn on European determinations where available as a fallback means of identifying toxic materials.

Ecotoxicity determinations have not yet been completed, but we intend to address these issues over the next few months. We will also be updating our Product Safety Cards and Stores calculations to use the NZ phrases.

Please note that we have the phrases and graphics used on the NZ MSDS may not appear to be consistent with information on other ChemWatch reports. This is due to the very different criteria used to determine these aspects in the NZ legislation. If you have any questions or concerns, please let us now and we will sort them out together.

As ERMA makes more determinations we will incorporate these into the material reports to override our calculated values.

Further developments can be expected in our April release, and we intend another training tour to address these developments in May.

### International TREM Card

An International Transport Emergency Card (TREM Card) has recently been developed and added to the ChemWatch database. Used primarily in Europe and Asia by drivers transporting hazardous and dangerous materials, the reports are currently available in English, French, German, Spanish, Hindi and Italian. Chinese is soon to be added to the list of available languages. The TREM Card can be accessed through the Custom Labels Module of the system and also through the Transport button located to the top of the Red Report Screen. For ChemWeb Gold users, expect to see the TREM Card included with the next update.

### Languages – Hindi is Here!

After much anticipation, we are very pleased to announce that Hindi has now been added to the long list of User Interface Languages. It is accessible from the start-up screen of both ChemWeb Gold and the ChemWatch LAN based program and resultantly Hindi versions of the Mini MSDS, MSDS, Custom Labels and TREM Cards are available with this release. In addition, French has been included as a language option in the Custom Labels module of the program.

### International Labeling

For Suppliers and Manufacturers we are offering improved support for multi-language labels, including the ability to specify different names for a single product based on language. A single label design template could service Taiwan and Mainland China (Traditional and Modern Chinese characters), Japan, Korea and Singapore, with regional product names and safety warnings included automatically. These same names will appear on the appropriate MSDS and Mini MSDS.



*Lawrence Law, John Munro, Christine Lepisto and Yukari Suzuki of Atotech SEA at the ChemWatch at Kynaston building.*

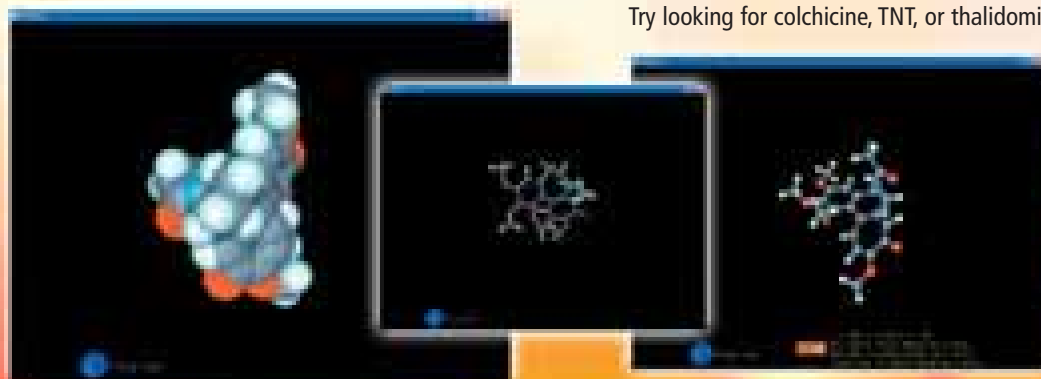
In the interests of International compliance the European/International hazard symbols (Orange squares) now no longer include text. This may be added in an appropriate language at a later date, subject to demand.

To both finalise and celebrate the release, Atotech representatives from America and Japan made a trip to ChemWatch HQ in Melbourne.

### Web Molecular Modeler

We have upgraded our Molecular Modeling program with a much larger database and a much snazzier presentation format, including bond lengths, angles and even torsion angles. ChemWeb Gold users can also get access to Molecules via our web-based program. Drag to rotate, click to select atoms, change the presentation style.

Try looking for colchicine, TNT, or thalidomide - Enjoy!



## Substructure Searching

As ChemWatch powers into 2003, we bring to you many new and progressive features of the ever-expanding system. Arguably none are more exciting than the new substructure search. Users are now able to search for particular chemical structures by using simple a molecule editor to draw the structure in question. From here, it is converted into a SMILES stream where computer generated algorithms search through a database of over 40,000 pure substances in order to obtain a match.

The search engine was written and adapted for ChemWatch by Dr. Wolfgang D. Ihlenfelt. Wolf studied chemistry in Hamburg, Heidelberg and Munich, and obtained his Ph.D. in the research group of Prof. Gasteiger. After almost three years of post doctorate study in Japan, he returned to Germany and founded the company Xemistry GmbH. As CEO Wolf was able to expand and fine-tune the chemoinformatics software he had developed at university and as a result, this software is now functional from within ChemWatch, making the substructure queries on the database possible.

The benefits of the substructure search engine for ChemWatch users go way beyond helping to find the right chemical. The ability to identify different chemicals at a molecular level has given rise to many new features behind the scenes; one example exists in the Manifest and Storage Module of ChemWatch. Substructure searching enables the program to automatically identify storage incompatibilities within Manifest and Stores and gives users an instant warning when incompatible substances are added.



*British ex-patriot and ChemWatch Team Leader, Derek, is proving the old adage "Mad dogs and Englishmen only go out in the midday sun" wrong. It seems he will go to great lengths to avoid our closest star.*

## Ecotoxicity Classification in ChemWatch

Chemwatch users will begin to see some extra information with regard to the ecotoxic potential of chemicals within the database. The information will be presented as a statement of Ecotoxicity, which is attributed to chemical properties such as 96Hr LC50 for fish, Bioconcentration Factor (BCF) and Biodegradability. Classifications of ecotoxicity were obtained by applying rules defined in the Commission of the European Communities Industrial Health and Safety Compiler's guide.

The ability to make these classifications ties in strongly with the Quantitative Structure Activity Relationship (QSAR) work currently being undertaken at ChemWatch. QSAR has allowed us to make "Clayton's" classifications by using predicted data where experimental data was not available. Classifications made using results obtained by (QSAR) and molecular modeling techniques are noted for user reference.

## ChemWeb Gold Mailing List

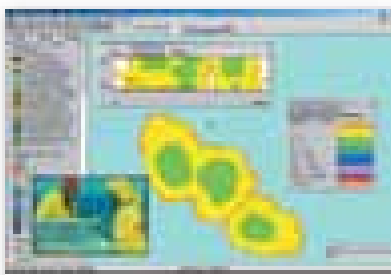
We are currently creating a mailing list of IT/IS people whose licensing agreement allows them to install the Intranet version of ChemWeb Gold on their own server. The list is aimed at communicating the current technical issues concerning Chemweb Gold and will include notice of downloadable patches, service packs and updates as soon as they become available.

If you would like to subscribe to this list, please post an email to the following address: [chemtech-equest@chemwatch.net](mailto:chemtech-equest@chemwatch.net)

## CHEMMAP Joins Forces with ChemWatch

ChemWatch have recently finalised an innovative agreement with The Applied Science Associates (ASA). As a result, a software link is now available between ASA's chemical spill modeling system, CHEMMAP, and ChemWatch's large database of Material Safety Data Sheets (MSDS) consisting of more than 40,000 pure substances and 75,000 common mixtures.

CHEMMAP predicts the trajectory and fate of a wide variety of chemical products, including floating, sinking, soluble and insoluble chemicals, and product mixtures. CHEMMAP can be used with ASA's own Geographic Information System (GIS) or ArcView®. CHEMMAP's spill model predicts the movement of chemicals on the water surface and the distribution of chemicals in the surrounding environment including the interaction with the atmosphere. The spill

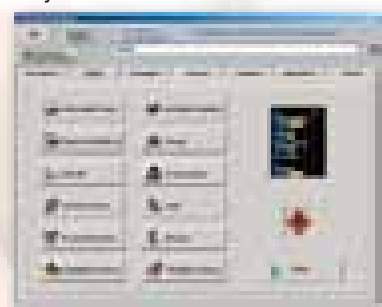


model relies on environmental data such as wind and currents, physical data such as the proximity of shorelines, and chemical data that define the chemical.

The extensive chemical database contained within CHEMMAP provides physical, chemical, toxicity and human health data for over 900 chemicals. The database system allows the user to add new chemicals, duplicate chemicals already in the database and make changes to chemical data while preserving the original values. The extensive suite of chemicals contained within the ChemWatch database complement and expands upon the data in the CHEMMAP database.

CHEMMAP provides time-varying concentrations for the water and atmosphere, and mass predicted on surfaces (i.e., water surface, shoreline, sediments). From these results, average exposure concentrations for the affected region are calculated and can be compared to human health criteria to determine potential risk to humans. CHEMMAP calculates Hazard Quotients, which are also known as Predicted Effects Concentrations divided by Predicted No Effects Concentration (PEC/PNEC). The comprehensive Health and Safety information within the ChemWatch database is a significant link to assist responders in their prediction analysis.

CHEMMAP can be used for environmental and health risk assessment, spill response, contingency planning, cost-benefit analysis, and natural resource damage assessment. CHEMMAP may also be applied to investigate a specific discharge event, to evaluate the probable consequences of potential releases under a variety of conditions, or to determine a worst-case scenario. The wide variety of information in ChemWatch's MSDS's will enhance CHEMMAP's role in all of its many uses.



## Bulletin Board

We provide a free weekly bulletin to all our clients presenting a summary of the latest developments in the scientific field. These are resourced from a large selection of material including scientific journals, magazines and websites. If you would like to subscribe please email: [emma@chemwatch.net](mailto:emma@chemwatch.net)

## The ChemWatch Team Grows Again

### Western Australia

The Australian team continues to get bigger and we welcome Bruce Ingle, our new Western Australian Consultant. Bruce has a strong background in Health Safety and Environment (HSE) issues and his presence shows a dedicated move to increase the level of support available on the western side of the country. His role will include all sales inquires and sales support for the region, as well as undertaking the nationally accredited ChemWatch courses.

Bruce has worked as an Associate Lecturer throughout the UK on behalf of the British Safety Council, developing and presenting modules for the International Diploma in Safety Management. After being awarded the UK Dip.SM, Bruce expanded his experience to include the construction, engineering, manufacturing, and marine industries, presenting courses for the North Sea Oil and Gas service industries, developing training for application in North Africa and working with the Abu Dhabi Onshore Oil Company in the United Arab Emirates.

In Australia, Bruce was Project Manager and Chairman of the Working Party addressing lead toxication of the Sydney Harbour Bridge workforce. Upon joining the National Safety Council of Australia (NCSA) as a Senior Consultant he had an active role in advancing HSE Risk Management Techniques to assist national organisations improve safety performance and initiated the introduction of the Quality Safety Audit to Australia. Working with the Commonwealth Government on HSE issues, Bruce later became State Manager for NCSA, WA. and as of November 2002, he has been a proud member of the ChemWatch team

Bruce's qualifications also include: Quality Society of Australasia OHSMS Auditor, Quality Safety Audit Auditor, Train the Trainer, and Internal Auditing of Quality Systems.

### Victoria

To keep up with the constant demand of MSDS authoring, recent RMIT graduate Rochelle Liyanage has joined the dedicated team of writers in our Melbourne office. Her majors include Applied Biochemistry, Molecular and Cellular Biology, Ecological Sampling and Environmental Toxicology.

We also welcome our new online magazine editor Emma Chessel. Emma has a double degree from Melbourne University in Environmental Science and English Language. Most recently she has been working as a Media Analyst and is thrilled at the prospect of applying her publishing and editing skills to the field of science. Keep a look out for the beefed up Bulletin Board.

## Galleria Chemica

Will there ever be a definitive reference for chemicals management? There needs to be.

ChemWatch is currently precipitating Galleria Chemica: a compendium of databases; from manufacturers, suppliers and regulatory bodies world-wide, to be the last word for all professionals who use chemicals.

Web hosting will give the scope for a complete information base, and provide access to new information as it appears.

The core MSDS Collection – at 1,000,000 and growing – provides immediate access to the chemicals information required by law. And for the first time, Galleria delivers this as an active solution - with an email service alerting changes in real-time.

The hundreds of databases embodied in the Galleria also address chemical properties, environmental laws, safety regulations and notification inventories as they apply in more than twenty countries worldwide.

But most importantly, Galleria introduces structural search functionality to the disparate banks of chemical information. This structural library will enable users to access accurate predictions of both chemical and physical properties of materials where experimental values are not available.

Galleria Chemica is the summation of a diverse range of chemical information from every corner of the globe, such diversity is a world first. So for the first time your chemical enquiries get the complete answer.



## Asian Diary

### ChemWatch in Singapore – Chemcare Asia

The rapidly improving ability of the ChemWatch Management System to provide full Material Safety Data Sheets in several of the regional languages is fostering strong interest among potential clients. In addition, a number of countries in the region have introduced recent legislative upgrades about chemical safety. As such, there is a 'stronger than ever' requirement for companies to have well organized Hazardous Communication Programs and Risk Reduction plans, both in place and fully operational.

In Singapore several pending legislative releases aimed at improved chemical safety in the work place will reflect changes that may be handled by applications of the ChemWatch Package. The Singapore Productivity Standards Board will shortly release Codes of Practice for the preparation of MSDS, as well as training requirements, access for employees, etc. The National Environmental Authority has stated that Singapore will adopt the Globally Harmonized Classification and Labeling of Chemicals. The Singapore Ministry of Manpower has issued guidelines on Chemical Health Risk Assessment as well as guidelines for the Prevention and Control of Chemical Hazards. An update to the regulation of the Singapore Factories Act is also awaiting verification. This change will require a Safety Management System for smaller chemical users previously not covered by the legislation, which will extend to commercial and University laboratory environments.

Sales within the Asian region are showing the advantage of the ChemWatch global expansion with a number of clients now requiring systems not only locally, but also to be provided to their USA and European parent organisations. This is frequently because the multi-language capability of ChemWatch for safety information allows all locations to meet both internal and regional government Hazcom compliance. ChemWatch has now been adopted as the basic Hazcom tool at several Universities within the region. This has been coupled with a Laboratory Management training program to initiate chemical awareness, and risk reductions.

Finally, ChemWatch is proud to welcome a new associate, Dirk Victor. Dirk has a very strong background in Chemical Plant Operations and Safety Management. For the last few years, Dirk was the Safety Management Director for a major MNC Research Center within the region. Dirk now resides in Thailand, and as such our services in the Asian region have become significantly more accessible.

**Barry Lynam**  
Chemcare Asia



### ChemWatch in China – NRCC Training

The NRCC and China's State Administration of Work Safety (SAWS) recently joined forces to hold five consecutive, daylong training courses in Qingdao. The course was entitled 'Special Safety Evaluation of Hazardous Chemicals' and focussed on understanding, interpreting and management of the following topics:

- Safety Production Laws of China
- Regulations on the Control over Safety of Hazardous Chemicals
- Major Hazard Facilities
- Hazardous Chemicals and Safety Management
- Evaluation of Hazardous Chemicals

Many industry representatives attended, in particular those who would be conducting workplace evaluations. Importantly, these courses addressed the pressing requirements of hazardous chemicals and safety management that China is currently facing. It also created a forum to exhibit the Chinese version of ChemWatch, which not so surprisingly generated a large amount interest from the trainees. From such a response it is clear we are succeeding in establishing the firm business relationships we initially set out to.

## American Diary

Jim and Paul report that they are looking forward to getting out of the frigid east and meeting Bernie in San Francisco in February. Bernie promises to bring the long awaited Galleria Chemica to North America and Paul has lined up some eager prospects for an initial viewing.

Jim and Paul will join Sharon Stasko for the release of the all new Vertere Inventory Management System at Pittcon in Orlando, Florida March 10-13. Stop by booth 1310 to see ChemWatch and Vertere. Jim tells us that he will have the BOCA reporting logic complete for the March release.

Paul will move the ChemWatch display to the FDIC (Fire Department Instructors Conference) in Indianapolis April 3-5 and then the big show of the spring is the AIH (Industrial Hygiene Show) in Dallas, TX May 12-14.

Paul is exceptionally proud to report that his own alma mater, Miami University (Oxford, Ohio) has honored us with a ChemWatch order. Mike Coons has promised to give Paul a tour of the campus when he comes to Oxford for training.

PRC Desoto (US office) and Nassau Community College (State University of New York) have also joined the ChemWatch family. ChemWatch usage continues to expand in EPA and OSHA offices and well as NASA facilities nationwide.

Our final news is personal. Global Chemical Data is officially changing our name to ChemWatchNA. Soon our new web site and cards will reflect the change as well as our email addresses. We'll try to contact all of our clients and prospects with a notice of change as they occur. We're still the same semi-serious, moderately good looking purveyors of the finest chemical management system on the planet. Stay in touch!

**Jim and Paul**

## ChemWatch Australia Training Dates

### Adelaide

March 4 – Level 1  
March 5 – Chemweb Gold  
June 3 – Level 1  
June 4 – Risk Assessment/Custom Labels

### Brisbane

March 25 – Level 1  
March 26 – Chemweb Gold  
June 17 – Level 1  
June 18 – Risk Assessment/Custom Labels

### Cairns

May 27 – Level 1  
May 28 – Risk Assessment/Custom Labels

### Canberra

May 6 – Level 1  
May 7 – Risk Assessment/Custom Labels

### Hobart

May 20 – Level 1  
May 21 – Chemweb Gold

### Melbourne

March 11 – Level 1  
March 12 – Risk Assessment/Custom Labels  
June 10 – Level 1  
June 11 – Chemweb Gold

### Newcastle

March 18 – Level 1  
March 19 – Chemweb Gold

### Perth

April 1 – Level 1  
April 2 – Chemweb Gold

### Sydney

February 25 – Level 1  
February 26 – Risk Assessment & Custom Labels  
June 24 – Level 1  
June 25 – Chemweb Gold

## ChemWatch Affiliate Companies

### Global Chemical Data Inc.

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Web: [www.globalchemicaldata.com](http://www.globalchemicaldata.com)

### Vertere

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Web: [www.kemikaxxi.com](http://www.kemikaxxi.com)

### Applied Science Associates

70 Dean Krauss Drive  
Narragansett, Rhode Island 02882-1143  
Web: [www.appsci.com](http://www.appsci.com)

### National Registration Center for Chemicals (NRCC)

218 Yan An San Road  
QingDao, China  
Email: [cchem@public.qd.sd.cn](mailto:cchem@public.qd.sd.cn)  
Web: [www.nrcc.com.cn](http://www.nrcc.com.cn)

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