

**Now Available In**  
Spanish, English & French



**Your Prime Resource for Toxicity Data**

*Fast, reliable access  
to the critical information you need.*

**RTECS® from CCOHS**  
– a trusted source for  
essential information on:

Toxicological data and reviews

International workplace  
exposure limits

References to US standards  
and regulations

Analytical methods

Exposure and hazard  
survey data

The NIOSH Registry of Toxic Effects of Chemical Substances (RTECS®) provides critical toxicological information with citations from more than 2,500 international journals, textbooks, technical reports, scientific proceedings and compendia.

Enhanced by CCOHS to make it even easier to search and understand, the RTECS® database provides information on more than 165,000 substances with approximately 420,000 chemical names and synonyms, and over 130,000 unique CAS numbers.



# Registry of Toxic Effects

## What our clients are saying

"CCOHS software is easy to implement and helps me greatly in my research ...allowing immediate access to all the information I need. And the technical support provided by CCOHS is excellent."

DR. STEVEN CRAGG  
Toxicologist/Consultant  
ToxTemps Inc.



## Only with RTECS® enhanced by CCOHS:

You can be sure your research is complete...  
whether your search retrieves *one* toxicity citation or *one hundred*.

"The process of maintaining and updating RTECS® requires continuous searching of the world's toxicological literature to find new substances for entry into the file and additional toxicity studies to add to or modify existing records."

Sweet, D., Anderson, V., and Fang, J. "An Overview of the Registry of Toxic Effects of Chemical Substances (RTECS): Critical information on chemical hazards." *Chemical Health and Safety*. Vol. 6, no. 6 (Nov./Dec. 1999), p. 12-16.

**PLUS** Exceptional client service and support – from the CCOHS team of OSH, environmental and IT experts – *included with your subscription!*

## Meeting your research needs

› **Easier, more powerful searching** – using a master index and a comprehensive library of toxic effects codes\*

### \*RTECS® Toxic Effects Codes

Organ, tissue, or functional system

- A. Brain and coverings
- B. Spinal cord
- C. Peripheral nerve and sensation
- D. Sense organs and special senses (nose, eye, ear, and taste)
- E. Autonomic nervous system
- F. Behavioural
- G. Cardiac
- H. Vascular
- J. Lung, thorax, or respiration
- K. Gastrointestinal
- L. Liver
- M. Kidney, ureter, and bladder
- N. Endocrine
- P. Blood
- Q. Musculoskeletal
- R. Skin and appendages
- T. Reproductive
- U. Nutritional and gross metabolic
- V. Tumorigenic
- Y. Biochemical
- Z. Related to chronic data

› **One-stop research** – NIOSH codes and acronyms have been replaced by *full-text descriptions* and

explanations, making the data readable and instantaneously useable

› **Full citations** – obtain and evaluate original literature within the context of your own corporate or regulatory requirements

› **Currency** – new records and updates added every quarter so you stay up-to-date

› **More help** – an extensive help section, including *RTECS® – A Comprehensive Guide*, to help you understand and interpret data

**RTECS® from CCOHS is the world renowned information source for:**

Toxicologists

MSDS Writers

Industrial Hygienists

Product Safety Specialists

Health and Safety Specialists

Pharmacologists

# Effects of Chemical Substances

RTECS® is *the* source for authoritative, up-to-date information on chemical hazards

## Acute Toxicity Data

Single dose toxicity data (LD50 and LC50); mammalian and non-mammalian species

## Primary Irritation Data

Skin and eye irritation; only positive results are cited

## Other Multiple Dose Data

Describes effects of chronic toxicity studies (13-week, 26-week, 1-year and 2-year).

## Tumorigenic Data

Individual studies are evaluated based on RTECS® criteria – *carcinogenic, neoplastic and equivocal tumorigenic results*

## Carcinogenicity Status

By OSHA, IARC, NTP, ACGIH, EPA Genetox Program

## Reproductive Effects

Results from mammalian studies with seven categories of data covered including:

- ) teratogenicity
- ) effects on fertility
- ) effects on the embryo or fetus
- ) effects on newborns

with over 65 unique effects codes used to describe results!

## Mutagenic Effects

Positive results cited for 20 specific tests as they relate to single cell systems, insects, fish, animals and humans

... all with complete citations to original literature so you can evaluate the data and draw independent conclusions!



## RTECS® databases

RTECS® is also available in French and Spanish with description indexes.

RTECS® is also available through CCOHS' Academic Support Program, and the Labour Support Program.

***No other single source offers you comparable content and quality of data!***

**Try it for yourself!**

Visit <http://ccinfoweb.ccohs.ca/rtecs/search.html> (English), <http://ccinfoweb.cchst.ca/rtecs/search.html> (French) or <http://ccinfoweb.ccsso.ca/rtecs/search.html> (Spanish) and view the search results quickly with this simple user interface – but remember you'll need a user name and password to view the *full* records.

Contact Client Services at  
1-800-668-4284 or [clientservices@ccohs.ca](mailto:clientservices@ccohs.ca)

or

[www.ccohs.ca/products/ordering/freetrial](http://www.ccohs.ca/products/ordering/freetrial) to sign up for a FREE Trial.



## CCOHS – a trusted source

The Canadian Centre for Occupational Health & Safety (CCOHS) is Canada's national resource for the advancement of workplace health and safety. CCOHS promotes the total well-being - physical, psychosocial and mental health - of working Canadians by providing information, training, education, management systems and solutions that support health and safety programs and the prevention of injury and illness.

CCOHS is governed by a Council with representatives from employers, labour and governments and is committed to providing impartial and accurate information services.



Canadian Centre for Occupational Health and Safety  
**RTECS Registry of Toxic Effects of Chemical Substances®**  
 Data source: MDL Information Systems, Inc.

Record Contents

Format: All Sections

- Chemical Identification
- Analytical/Assessment Data
- Acute Toxicity Data
- Other Multiple Dose Toxicity Data
- Tumorigenic Data
- Reproductive Data
- Irritation Data
- Sensitization
- U.S. Standards and Regulations
- Occupational Exposure Limits
- NIOSH Standards Development and Surveillance Data
- Status in U.S.

REFRESH RECORD

**CHEMICAL IDENTIFICATION**

RTECS Number: C1400000  
 Chemical Name: Benzene  
 CAS Registry Number: 71-43-2  
 Last Updated: 200711  
 Data Items Cited: 348  
 Molecular Formula: C<sub>6</sub>H<sub>6</sub>  
 Molecular Weight: 78.12  
 Wiswesser Line Notation: RH  
 Compound Descriptor: Agricultural Chemical, Tumorigen, Drug, Mutagen, Reproductive Effector, Human, Primary Irritant

**Synonyms/Trade Names**

(S)Benzole  
 Benzeen  
 Benzen  
 Benzene  
 Benzene  
 Carbon oil  
 Cyclohexatriene  
 NCI-C55276  
 RCRA waste number U019  
 Benzin (Obs.)  
 Benzine (Obs.)  
 Benzol  
 Benzole  
 Benzolene  
 Benzole  
 Bicarburet of hydrogen  
 Coal naphtha  
 "naphtha  
 "eral naphtha  
 "ne  
 "yl hydride  
 enzol  
 enzole

**REPRODUCTIVE DATA**

Type of Test	Route of Exposure	Species Observed	Dose Data	Sex/Duration	Toxic Effects	Reference
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	670 mg/m <sup>3</sup> /24H	female 15 day(s) pre-mating	Reproductive - Fertility - female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated)	HYSAAV Hygiene and Sanitation (USSR). English translation of GISAAA. (Springfield, VA) 1964-71. Discontinued. Volume(issue)/page/year: 33(1-3),327,1968
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	56600 ug/m <sup>3</sup> /24H	female 1-22 day(s) after conception	Reproductive - Effects on Newborn - biochemical and metabolic	HYSAAV Hygiene and Sanitation (USSR). English translation of GISAAA. (Springfield, VA) 1964-71. Discontinued. Volume(issue)/page/year: 33(7-9),112,1968
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	50 ppm/24H	female 7-14 day(s) after conception	Reproductive - Effects on Embryo or Fetus - extra-embryonic structures (e.g., placenta, umbilical cord)	JHEMA2 Journal of Hygiene, Epidemiology, Microbiology, and Immunology. (e.g., placenta, umbilical cord) namesti 28, 11802 Prague 1, Czechoslovakia) V.1- 1957- Volume(issue)/page/year: 24,363,1980
TCLo - Lowest published toxic concentration	Inhalation	Rodent - rat	150 ppm/24H	female 7-14 day(s) after conception	Reproductive - Fertility - post-implantation mortality (e.g. dead and/or resorbed	JHEMA2 Journal of Hygiene, Epidemiology, Microbiology, and Immunology.

A sample record showing the results of a search for "Benzene".



Available via Web, CD or Intranet  
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Contact CCOHS Client Services for details.  
 For Hardware/Software Requirements visit  
[www.ccohs.ca/products/hardsoft.html](http://www.ccohs.ca/products/hardsoft.html)

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135 Hunter Street East  
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Related Information Sources also available from CCOHS

**CHEMpendium™** An essential chemical safety database collection for workplaces and the environment, featuring CHEMINFO.

**OSH References** An electronic library of occupational health and safety references.