

TOXNET: Toxicology & Environmental Information

http://toxnet.nlm.nih.gov/

United States National Library of Medicine		OXNET kicology Data Network	
TOXNET PDA Access		SIS Home About Us	Site Map & Search Contact Us
TOXNET - Database	s on toxi	cology, hazardous chemicals, environmenta Search All Databases	Env. Health & Toxicology TOXNET al health, and toxic releases. Env. Health & Toxicology
ChemIDplus HSDB	?	Enter term(s) to search all databases.	Portal to environmental health and
TOXLINE CCRIS	?		VISIT SITE resources.
• DART	2	Search Clear Help	Tesources.
GENETOX	2		Support Pages
IRIS ITER	?	TOXNET Search Options	 Help TOXNET FAQ
 Multi-Database 	?	 Search all databases: Enter term(s) in box above 	TOXNET Update Status
• TRI	2	 Search a specific database: Click database at left Database description: Click on the 2 	 Fact Sheet Database Description
• Haz-Map	?		 Training Manuals
Household Products	2		News
• TOXMAP	2		

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NLM Contract No.: N01-LM-6-3505

January 2007

TOXNET (TOXicology Data NETwork)

http://toxnet.nlm.nih.gov/

- A FREE web-based integrated system of databases on toxicology, environmental health, hazardous chemicals, toxic releases, chemical nomenclature, and specialty areas such as occupational health and consumer products
- A product of NLM's Toxicology and Environmental Health Information Program (TEHIP)

Five Types of Databases

- 1. Chemical Information: ChemIDplus
- 2. Toxicology <u>Data</u> Files (one record per chemical):
 - a. HSDB
 - b. CCRIS
 - c. GENE-TOX
 - d. IRIS
 - e. ITER
 - f. LactMed
- 3. Toxicology <u>Literature</u> Files (bibliographic references):
 - a. TOXLINE
 - b. DART
- 4. Toxic <u>Releases</u> (chemicals into the environment)
 - a. TRI
 - b. TOXMAP
- 5. Other Databases:
 - a. Haz-Map
 - b. Household Products

ChemIDplus	?
HSDB	?
TOXLINE	?
• CCRIS	?
• DART	?
GENETOX	2
• IRIS	?
• ITER	?
LactMed	?
 Multi-Database 	?
• TRI	?
• Haz-Map	?
Household Products	?
• ТОХМАР	?

TOXNET Data Files

Hazardous Substances Data Bank (HSDB)

- From NLM
- About 5,000 chemical records
- Toxicology of potentially hazardous chemicals
- Information on human exposure, industrial hygiene, emergency handling procedures, environmental fate and regulatory requirements
- Data from books, government documents, technical reports and selected primary literature
- Some data is compiled expressly for HSDB
- Peer reviewed by the Scientific Review Panel

Chemical Carcinogenesis Research Information System (CCRIS)

- From the National Cancer Institute (NCI)
- Data and information on carcinogenicity, mutagenicity, tumor promotion, and tumor inhibition test results
- Data derived from studies cited in primary journals, current awareness tools, NCI reports, and other special sources
- About 9,000 chemical records
- Scientifically evaluated and fully referenced

Genetic Toxicology (GENE-TOX)

- From the U.S. Environmental Protection Agency (EPA)
- Note: GENE-TOX not updated since January 2000
- Mutagenicity studies
- Data Structure assay type, assay code, results, panel report, reference
- 3,214 Chemical Records
- Selected literature was reviewed by scientific experts

Integrated Risk Information System (IRIS)

- From the EPA
- Contains EPA consensus scientific positions and quantitative values on cancer and non-cancer health effects that may result from lifetime oral or inhalation exposure to specific chemical substances in the environment
- About 550 chemical records
- Scientifically reviewed by groups of EPA scientists and represent EPA consensus

International Toxicity Estimates for Risk Assessment (ITER)

- From Toxicology Excellence for Risk Assessment (TERA), a non-profit corporation
- Provides a comparison of international risk assessment information derived by different organizations (U.S. and International)

- About 650 chemical records
- Includes synopses, links to organization source documents

LactMed

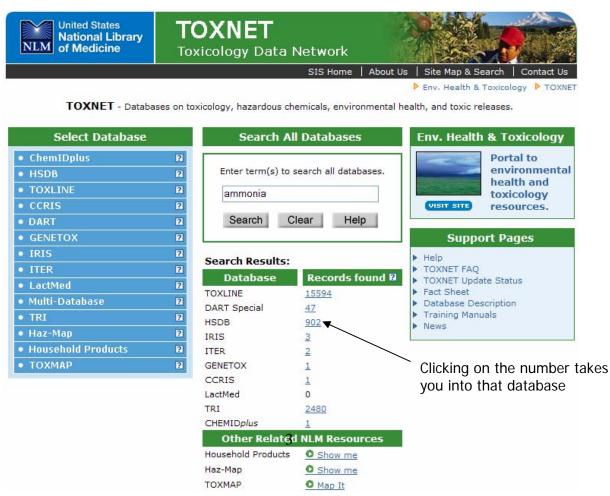
- From NLM
- Database of drugs and other chemicals to which breastfeeding mothers may be exposed and the possible effects in nursing infants
- Over 400 records
- Peer-reviewed and fully referenced

Searching TOXNET

- Each TOXNET database may be searched individually or by using the **Search All Databases** option (record counts may vary somewhat when databases are searched individually)
- The databases employ very similar search engines. Search techniques for **Search All Databases** can be used for each database

Searching All Databases

- Search by chemical names, other terms (including multiple terms), and numbers (including CAS numbers)
- Search results display a summary of the number of records retrieved in each database



TOXNET Data Files

Example: HSDB (Hazardous Substances Data Bank)

NLM	TOXNET Toxicology Data Netw	ork
	SIS Hom	
Save HSDE	3 Search Results	🕨 Env. Health & Toxicology 🕨 TOXNET 🕨 HSDB
Sort		Clear Limits
Details For che	micals, add synonyms and CAS numbers t	o search: 💿 Yes 🔘 No
History Items 1	through 20 of 894	Page 1 of 45. Go to page
Download	ice Names are sorted in relevancy ranked o	
odify Search	ce names are soned in relevancy ranked o	raer.
Basic Search Selec		
rowse Index	-	
Help The follo	wing is the primary record for the chemical	. All of the query terms were found.
)XNET Home	AMMONIA 7664-41-7	Click on chemical name to access full record
	wing 893 records contain one or more of th nywhere in the record.	e requested chemical name(s) and all of the query
2 🗌	AMMONIUM HYDROXIDE 1336-21-6	
3 🗌	AMMONIUM ACETATE 631-61-8	
4	AMMONIUM SULFATE 7783-20-2	

• Results display best matches first

Save Checked Items	
Sort	
Details	
History	
Download	
Modify Search	
Basic Search	
Browse Index	
Help	
TOXNET Home	

- Saved Checked Items option allows you to display selected records only
 - Check box next to record number(s)
 - Click Saved Checked Items
 - Click **Display Saved Items** to view only the selected records
- Sort allows selected records to be resorted in ascending or descending order. TIP: This is best used with Saved Checked Items
- **Details** displays the search strategy
- **History** displays your recent searches
- **Download** allows some or all of the records retrieved to be downloaded in brief or full format. TIP: This is best used with **Saved Checked Items**
- Browse Index opens the Browse the Index search screen

Full Record Display

 The Full Record Display for each TOXNET data file has a similar look and navigation

Hazardous Substances Data Bank HSDB	Basic Search Details Other Files Modify Search TOXNET Limits Browse Index Help Item 1 of 902 Item 1 of 902
Contract all categories	AMMONIA
• • • • • • • • • • • • • • • •	CASRN: 7664-41-7
Contents Expand all categories	For other data, click on the Table of Contents
FULL RECORD	Human Health Effects:
Image: Second system FULL RECORD Image: Human Toxicity Excerpts Image: Human Toxicity Values Image: Human Toxicity Studies	Human Toxicity Excerpts: SYMPTOMATOLOGY (AMMONIA GAS & WATER ONLY): 1. Vapors cause irritation of eyes & resp tract. High concn cause conjunctivitis, laryngitis, & pulmonary edema or pneumonitis. Sensation of suffocation induced by spasm of glottis or by laryngeal edema. 2. Contact with skin can cause burns & vesication. If squirted into eyes rise in intraocular pressure may mimic narrow-angle glaucoma. Corneal edema & semidilated fixed pupils /are/ typical. 4. If systemic absorption becomes extensive, coma may arise preceded by hypertonus & convulsions. [Gosselin, R.E., R.P. Smith, H.C. Hodge. Clinical Toxicology of Commercial Products. 5th ed. Baltimore: Williams and Wilkins, 1984., p. III-22]**PEER REVIEWED**
Mon-Human Toxicity Studies Non-Human Toxicity Excerpts Non-Human Toxicity Values Ecotoxicity Values Ecotoxicity Values Metabolism/Pharmacokinetics	AMMONIA HAS A GREATER TENDENCY THAN OTHER ALKALIES TO PENETRATE & DAMAGE THE IRIS, & TO CAUSE CATARACT /IN SEVERE BURNS/. IRITIS MAY BE ACCOMPANIED BY HYPOPYON OR HEMORRHAGES EXTENSIVE LOSS OF PIGMENT & SEVERE GLAUCOMA.

- The search term(s) is highlighted in red in the full record
- Each database has the **Table of Contents** in the left frame and the full record in the right frame
- The **Table of Contents** includes quick links to the specific fields and categories within the record. Items of note include:
 - Human Health Effects (which is the default display in HSDB)
 - Emergency Medical Treatment
 - Animal Toxicity Studies
 - Environmental Fate and Exposure
 - Manufacturing/Use Information (includes the major uses of the substance and manufacturers)

Other Files

Moving between Databases

 The Other Files button, located at the top of the results page, allows the search to be conducted in other TOXNET files

5

Searching Individual Databases

• TOXMAP

• TOXNET Home

- Boolean searching using AND, OR, and NOT is available
- Truncation using the asterisk (*) is allowed at the end of a word and will search any number of characters
- Phrase searching by quotation marks is allowed

?

United States National Library of Medicine		XNET icology Data Network			
TOXNET PDA Access		SIS Home	About Us	Site Map & Search	Contact Us
Hazardous Substances E hemicals.)ata Bank	(HSDB) – Comprehensive, peer		ealth & Toxicology 🕨	
Select Database		Search HSDB		Env. Health & T	oxicology
• ChemIDplus	2			the second se	rtal to
• HSDB	2	"sodium benzoate"			vironmental alth and
TOXLINE	2	(e.g. antifreeze kidney failure chromium compounds, 7718-54		the second se	kicology
CCRIS	?	Search Clear Hel			sources
• DART	2	Search Clear Her			
GENETOX	2	For chemicals, add synonym		Support P	ages
• IRIS	2	and CAS numbers to search ④ Yes 〇 No	:	▶ Help	
• ITER	2	O Yes O No		Fact Sheet	
 LactMed 	2	Limits Browse the Inde		 Sample Record HSDB Scientific Rev 	view Panel
 Multi-Database 	2	Limits Browse the Inde	x	TOXNET FAQ	
• TRI	2				
• Haz-Map	2				
Household Droducts	2				

• Clicking on the Limits button allows you to search specific fields in the record

	Search HSDB
	benzene Search Clear Help Add chemical synonyms and CAS numbers to search: • Yes • No
C	Search: Oexact words Osingular & plural forms Oword variants Search records with: Othe phrase O all words O any words
	Search in fields: (If no box is checked, all fields will be Expand all categories Expand all categories Expand all categories I
Customizable search fields	 Substance Identification Human Health Effects Hw Emergency Medical Treatment Animal Toxicity Studies Metabolism/Pharmacokinetics Hermacology Hermacology Hermacology

Practice Exercises

1. What are the adverse effects of exposure to phenol?

2. What is lithium chromate used for?

3. Is coal tar a carcinogen?

TOXNET Literature Files

TOXLINE (TOXicology Literature onLINE)

- Bibliographic information on pharmacological, biochemical, physiological, environmental, and toxicological effects of chemicals and other agents on living systems
- Sources of information include: toxicology journals, technical reports, research projects and archival collections
- About 3.5 million citations
- Links to PubMed citations

Developmental and Reproductive Toxicology/Environmental Teratology Information Center (DART/ETIC)

- Managed by NLM and funded by the EPA, the National Institute of Environmental Health Sciences (NIEHS), the National Center for Toxicological Research (NCTR) of the Food and Drug Administration (FDA), and NLM
- Bibliographic information on teratology and other aspects of developmental and reproductive toxicology
- Over 100,000 citations
- 2 components DART Core and DART Special
 - DART Core searchable via TOXNET
 - links to PubMed citations
 - o DART Special searchable via TOXNET
 - non-PubMed citations including meeting abstracts, technical reports, and non-MEDLINE journals

Searching TOXLINE



Toxicology Literature Online (TOXLINE) - References from toxicology literature.

Select Database		Search TOXLINE	Env. Health & Toxicology	
 ChemIDplus HSDB TOXLINE CCRIS 	5 5 5 5	benzene bladder cancer (e.g. asphalt fumes roofers, calcium aging, Neville DM autoimmune) Search Clear Help	VISIT SITE Portal to environmenta health and toxicology resources	
 DART GENETOX IRIS ITER LactMed Multi-Database TRI 	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	For chemicals, add synonyms and CAS numbers to search: • Yes No Limits Browse the Index	Support Pages Help Fact Sheet Sample Record TOXNET FAQ Importing Citations into Reference Manager	
 Haz-Map Household Products TOXMAP TOXNET Home 	5			

- Search options:
 - o Text word search
 - o Browse the Index
 - o Search using limits
- NOTE: **TOXLINE** and **DART** employ very similar search engines. All search techniques for **TOXLINE** can be used for **DART**

Browsing TOXLINE

• Browse the Index allows browsing by terms, MeSH headings or Keywords, Authors or CAS number

Browse TOXLINE
hydrochloride
(e.g. asphalt fumes roofers, calcium aging, Neville DM autoimmune)
Search Clear Help
Browse index in TOXLINE Special:
💿 All Words
🔘 MeSH Headings/Keywords
 Authors
🔘 CAS Registry Number
Return to Basic Search

NLM	TOXI Toxicolo	NET gy Data Netv	work
TOV		SIS Hor	
TOXLIN	E Browse Res	ults	🕨 Env. Health & Toxicology 🕨 TOXNET 🕨 TOXLINE
[hydrochloride	Search	Clear Return to Basic Search
	All Words ()	MeSH Headings/Ke	ywords 🔿 Authors 🔿 CAS Registry Number
c	Shaak ana ar mara	text words. Then cli	
		d Browse: hydroch	
			Down Select
	Check to Select	Number of Records	Index Term
		15694	hydrochloride
-		1	hydrochloridebiguanide
		1	hydrochlorideinducible

Search using limits

- Search by chemical names, other terms (including multiple terms), and numbers (including CAS numbers)
- Click on the Limits button to limit your search. Type of Limits include
 - o Title or Author fields
 - Searching exact words or variants
 - Maximum number of results retrieved
 - Year of publication
 - Search by languages
 - TOXLINE components

Search TOXLINE
Search Clear Help
Add chemical synonyms and CAS numbers to search: $\ \circledast$ Yes $\ \bigcirc$ No
Search fields: All fields Titles Authors (e.g., Smith H)
Search: Oexact words Osingular & plural forms Oword variants Search records with: Othe phrase Osll words Oany words
25000 Maximum records returned Year of Publication: 1900 through 2006 Only search documents added in the last months.
TOXLINE Components Language
All All All All All All All Anabular Arbeir Afrikaans Afrikaans Arabic CRISP Armenian Azerbaijani
To select more than one component, click while holding the CTRL (PC) or CMD (Mac) key.
Search Browse the Index

TOXLINE Results

Citations that can also found in PubMed will be displayed
 with an icon that will link directly to PubMed

NLM	TOXNET Toxicology Data Network
TOXLIN Search	SIS Home About Us Site Map & Search Contact Us IE Penv. Health & Toxicology > TOXNET > TOXLINE Results
sulfuric ad	cid Search Clear Limits
For chemi	cals, add synonyms and CAS numbers to search: 🖲 Yes 🔘 No
ltems 1 thr	rough 20 of 6179 Page 1 of 309. Go to page
	s are sorted in relevancy ranked order. ort to change the order of the retrieved References.
Select Record	Reference
1 🗆	Sulfuric acid Anonymous SIDS. Screening Information Data Set for High Production Volume Chemicals. (2003) 44 p [RISKLINE]
2 🗆	Sulfuric acid-layered ultrafine particles potentiate ozone-induced airway injury. Chen LC; Miller PD; Lam HF; Guty J; Amdur MO J Toxicol Environ Health. 1991, Nov; 34(3):337-52. [Journal of toxicology and environmental health.] [PubMed] PubMed Citation
3 🗖	Strong inorganic acid mists containing Sulphur Acid. Evaluation of the carcinogenicity and genotoxicity Dutch expert committee on occupational standards. (DECOS) Health Council of the Netherlands (Gezondheidsraad) Vol:07 OSH (2003) 31 p [RISKLINE]
4	Synergistic interaction of ozone and respirable aerosols on rat lungs. III. Ozone and sulfuric acid aerosol. Warren DL; Last JA Toxicol Appl Pharmacol. 1987, Apr; 88(2):203-16. [Toxicology and applied pharmacology.] [PubMed] PubMed Citation

Practice Exercise

1. Find citations to literature, journals or reports on environmental exposure to acetone in salons.

2. What are the effects of cocaine and alcohol usage on a fetus?

Toxic Releases Databases

Toxics Release Inventory (TRI)

- Set of publicly available databases containing information on releases of specific toxic chemicals and their management as waste
- Based on data submitted to the EPA from industrial facilities in U.S.
- Describe the releases of toxic chemicals into the environment annually (1987 2004)
- Data includes names and addresses of facilities, the amounts of toxic chemicals released to the air, water, land, or transfer to waste sites
- About 1,562,569 records

Select Database	Search TRI
ChemIDplus	Chemical Name or CAS Registry
• HSDB	Number
• TOXLINE	toluene
CCRIS	Casuah Class Hala
• DART	Search Clear Help
GENETOX	Add synonyms and CAS numbers to search: • Yes • No
• IRIS	
• ITER	TRI Files:
LactMed	
• Multi-Database 🔹	TRI2004 TRI2003
• TRI 🛛	
• Haz-Map 😰	
Household Products	TRI1996 TRI1995
• TOXMAP	🗖 TRI1994 🗖 TRI1993
TOXNET Home	TRI1992 TRI1991
	TRI1990 TRI1989
	🗆 TRI1988 🛄 TRI1987
	Facility Names (Separate multiple entries with commas)
	Facility Location (Separate multiple entries for state, city/state, or zip with commas. For example: NJ, DE, or Trenton/NJ, Houston/TX, or 21113, 21224.)

- Results display in brief format with the facilities and chemical list
- The Map it with TOXMAP button displays the results in TOXMAP



• To find the total release of the chemical by facility, select the record and click on **Calculate Release!** Results summarize the total amount released

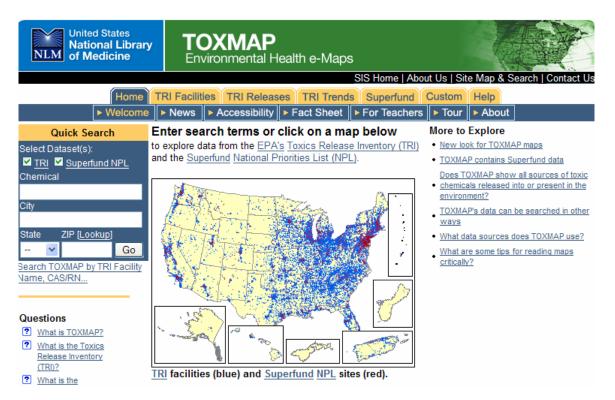
Environmental Release	Pounds
Total Air Release	73,106
Total Water Release	499
Total Underground Injection Release	0
Total Land Release	0
Total Environmental Release	73,605
Off-Site Waste Transfer	Pounds
Total Publicly Owned Treatment Works Transfer	0
Total Other Off-Site Locations Transfer 3	,570,297
Total Off-Site Waste Transfer 3	,570,297
Total Environmental Release and Off-Site Waste Transfer 3	,643,902
	· · ·

TRI Calculation Results

TOXNET Home

ТОХМАР

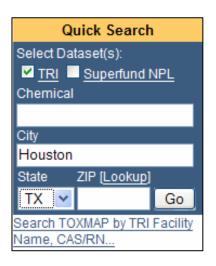
- From NLM
- Provides maps of the United States to help users visually explore data from the U.S. Environmental Protection Agency (EPA)'s Toxic Releases Inventory (TRI) and the Superfund National Priorities List (NPL)
- Displays air, water, and land releases as reported by US industrial facilities
- Search by chemical name, facility name and/or location

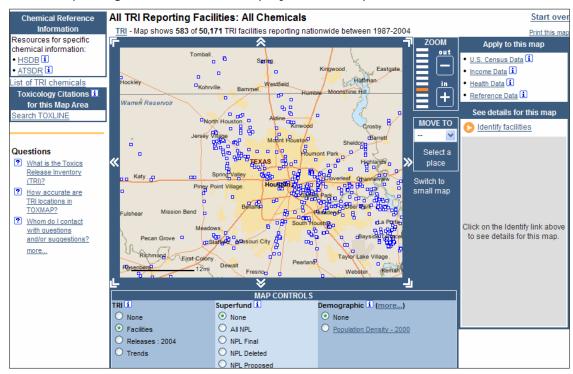


- Trend a chemical released by facility or location
- Links to HSDB and ATSDR information as well as TOXLINE searches
- Can include census and reference data on map

Searching TOXMAP

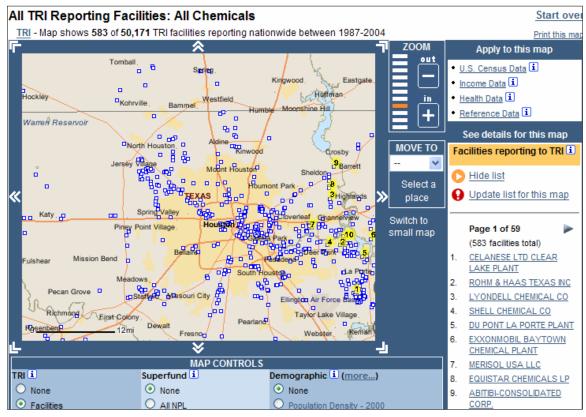
 To locate toxic releases in your area, type in your city and state into the quick search box and select the Go button





• Toxic reporting facilities will be displayed in a map

- To identify the specific facilities, click on the **Identify Facilities** link under the See details for this map heading
- To access information on a particular facility, clicking on the facility name



- After a facility is selected, the top six toxic chemical releases will be displayed in a table
- To find out the hazardous effects of the chemical, select the chemical name from the table

TRI Facilities

 CELANESE LTD CLEAR LAKE PLANT 9502 B BAYPORT BLVD PASADENA, TX 77507 TRI Facility ID: 77507HCHST9502B

top

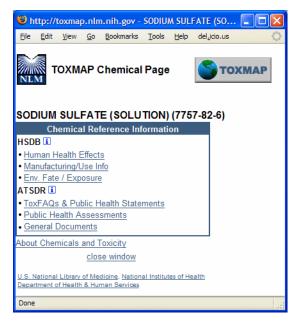
Emissions Estimates:

Chemical (summary table)	Release Amount (Ibs./all years)	_	Distribution By Chemical**
1) ETHYLENE GLYCOL	81,739,639	82.5%	
2) METHANOL	6,140,500	6.2%	Tunout tuno
3) <u>VINYL ACETATE</u>	3,527,902	3.6%	
4) <u>ETHYLENE</u>	2,021,795	2%	│ [®] └ <mark>┦╶┯╶┯╶┯╶┯</mark> ┙│
5) ACETALDEHYDE	1,482,361	1.5%	Chemical
6) Other chemicals	4,155,161	4.2%	Release Amount
TOTAL	99,067,358		

Percents may not add to 100 because of rounding.

Small values may not be visible on chart. Refer to Chemical Table at left. Mouseover bars for release percentages.

- All chemicals reported by this facility
- Releases summary table for this facility
- The TOXMAP chemical page will appear allowing you to select from the Hazardous Substances Data Bank (HSDB) or the Agency for Toxic Substances and Disease Registry (ATSDR)
- Select the link to Human Health Effects



• The results will be displayed within the Hazardous Substances Data Bank (HSDB)

Hazardous Substances Data Bank HSDB	ownload Basic Search Limits	Details Other Files Modify Search TOXNET Home Help Item 1 of 1
Contents Expan Sele E FULL RECORD E Muman Health Effects Human Toxicity Exc Skin, Eye and Respi	CASR For or Cash For or Lect Clear Huma s cerpts irratory Initations WOR	UM SULFATE N: 7757-82-6 her data, click on the Table of Contents an Health Effects: n Toxicity Excerpts: KERS FROM SURFACE SODIUM SULFATE SOLN MINES MEASURED FOR
Drug Warnings Emergency Medical T Animal Toxicity Stud	Ireatment NO A	FUNCTION, SERUM SULFATE, CALCIUM & ELECTROLYTES SHOWED BNORMALITIES THAT COULD BE RELATED TO SUCH EXPOSURE. DA F, EUINTON LE; HEALTH EFFECTS OF LONG-TERM EXPOSURE TO SODIUM TE DUST; J OCCUP MED 20 (12): 812-4 (1978)]**QC REVIEWED**

• Searches can be conducted on TRI releases, TRI trends and Superfund data by selecting the appropriate tab on the top TOXMAP menu



Other Databases

Haz-MAP

- From NLM
- Occupational health database designed for health and safety professionals and for consumers seeking information about the health effects of exposure to chemicals and biological substances at work
- Search or browse by agent, disease or job
- Contains approximately 1,000 chemicals and 180 occupational diseases

		L	*	Å	
Search	as	Agent	Disease	Job	Text Search
Haz-Map Search More Searches wse Haz-Map	₩ Haz-M	lap Help	G	lossary	References
Hazardous Agents 1. <u>By Types of Agents</u> 2. By Adverse Effects					
 <u>By Types of Agents</u> <u>By Adverse Effects</u> <u>Alphabetically</u> 					
By Types of Agents <u>By Adverse Effects</u> <u>Alphabetically</u> Occupational Diseases <u>By Types of Diseases</u>					
By Types of Agents By Adverse Effects Alphabetically Cccupational Diseases By Types of Diseases By Jobs and Symptoms					
By Types of Agents <u>By Adverse Effects</u> <u>Alphabetically</u> Occupational Diseases <u>By Types of Diseases</u>					
 By Types of Agents By Adverse Effects Alphabetically Occupational Diseases By Types of Diseases By Jobs and Symptoms Alphabetically High Risk Jobs					
 By Types of Agents By Adverse Effects Alphabetically Occupational Diseases By Types of Diseases By Jobs and Symptoms Alphabetically 					

Household Products Database

- From NLM
- Information on potential health effects of chemicals or substances contained in more than 6,000 common household products
- Users can browse by a product category such as 'Pesticides' or by alphabetical listing of brand names
- Products can also be searched by type, manufacturer, product ingredient/chemical name and by health effects
- Record for each product shows ingredients as reported in the manufacturer's Material Safety Data Sheets (MSDS)
- Links to TOXNET, PubMed and other NLM databases



Searching Household Products Database

• To conduct a quick search, type in the name of the product or brand name into the quick search box

Home	Products	Ingredients	MSDS
	ble	each	Quick Search

• Search results will include the search term as an ingredient and as a text word in the product name

	Home	Products	Ingredients	MSDS
		Quick	Search: bleach	Go
		Quick	Bearen.	
Search Results				
3 record(s) found searching bleach as Ir	ngredient			
 <u>Bleach (unspecified)</u> <u>Color safe oxygen bleach (sodiur</u> <u>Cellulose, microcrystalline</u> 	n perborate	and bleach act	ivator)	
71 record(s) found searching bleach as	Product (brai	nd name or typ	e of product)	
 Ace with Bleach Laundry Deterge Ajax Cleanser with Bleach 	ent Powder			
All with Color Safe Bleaching Act	tion			
Arm & Hammer Fabricare Advan				
Arm & Hammer Liquid Detergent	with Color S	afe Bleach Alt	ernate	
BIZ Non chlorine Bleach Cablet 0244 Blassbirg Oil				
 <u>Cabot 0241 Bleaching Oil</u> <u>Cheer Ultra Laundry Detergent w</u> 	uith Bloach			
Clorox 2 Color Safe Bleach	In Dieden			
Clorox 2 Ultra Color Safe Bleach				
Clorox 2 Ultra Color Safe Bleach	-01/01/1997			
 Clorox 2 Ultra Color Safe Bleach 	-04/01/2004			
 Clorox All Fabric Bleach 				
Clorox Bleach & Blue Automatic				
Clorox Bleach & Blue Automatic	Toilet Clean	er-08/01/2003		

• Select a record for more information about the product/item

		H	lome	Prod	lu cts	Ingredients	MSDS
Browse by Categories	Browse Alphabetically	Search					
	Search bleach		as Brand	Name	🚩 in	All Product Cat	egories 💌 🜀
Brand Info	rmation						
	Brand Name: Ajax	k Cleanser v	with Blea	ch			
	Form: pow	der					
Pro	duct Category: Hom					tipurpose cleane	r
		ie inside >>	Cleaner >>	> multipur	pose		
Custome	er Service No.: 800-						
	Date Entered: 1996						
	Related Items: Proc	lucts with sir	nilar usage	e in this d	atabase		
Manufactu	rer						
	Manufacturer: Colg	ate Palmoliv	e Co.				
	Address: 300	Park Avenue	•				
	City: New	York					
	State: NY						
	Zip Code: 1002	22					
Telep	hone Number: 212-	310-2000					
	Fax Number: 212-	310-3243					
Toll	Free Number: 800-	221-4607					
Date	e Info Verified: 2004	1-02-12					
	Related Items: Prod	lucts by this	manufactu	urer			
Health Effe	ects					Se	arch TOXNET

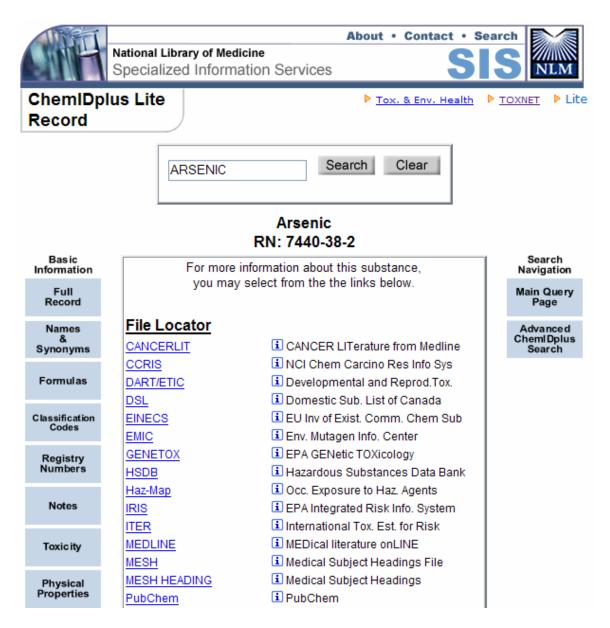
- The detailed record will contain links to further information on the manufacturer of the product, handling/disposal and ingredients
- Links within the record will access other NLM databases including PubMed and other TOXNET databases

ChemIDplus

- Structure and name file used for the identification of chemical substances
- Contains over 380,000 chemical records, of which over 263,000 include chemical structures
- Search options include ChemID Lite (Basic Search) and Advanced Search

Basic Search (ChemID Lite)

Yields a list of results from different sources



- The Basic Information buttons on the left of the results allows you to access the ChemIDplus Full Record, or a specific portion of the record, such as Names & Synonyms, Formulas, Classification Codes, Registry Numbers, Notes, Toxicity and Physical Properties
- The Search Navigation button on the right allow you to go back to a basic search (Main Query Page) or to the advanced search (Advanced ChemIDplus Search)
- The middle of the results pages lists the **Locators** where further information on the chemical is found
- The File Locators point to NLM associated databases

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File Locator	
CANCERLIT	NCI CANCER LITerature
<u>CCRIS</u>	 NCI Chem Carcinogenesis Res Info System
DART/ETIC	 Developmental and Reproductive Toxicology
DSL	 Domestic Substances List of Canada
EINECS	 EU Inv of Existing Commercial Chem Sub
EMIC	 Environmental Mutagen Information Center
<u>GENETOX</u>	EPA GENetic TOXicology
HSDB	፤ Hazardous Substances Data Bank
Haz-Map	 Occupational exposure to hazardous agents
IRIS	 EPA Integrated Risk Information System
MEDLINE	MEDical literature onLINE
MESH	 Medical Subject Headings File
MESH HEADING	 Medical Subject Headings
RTECS	 Registry of Toxic Effects of Chemical Substances
TOXLINE Core	INLM TOXLINE Core from MEDLINE
TOXLINE Special	NLM TOXLINE Special on TOXNET
<u>TRI2000</u>	 EPA Toxics Release Inventory 2000
<u>TRI2001</u>	 EPA Toxics Release Inventory 2001
<u>TRI95</u>	 EPA Toxics Release Inventory 1995
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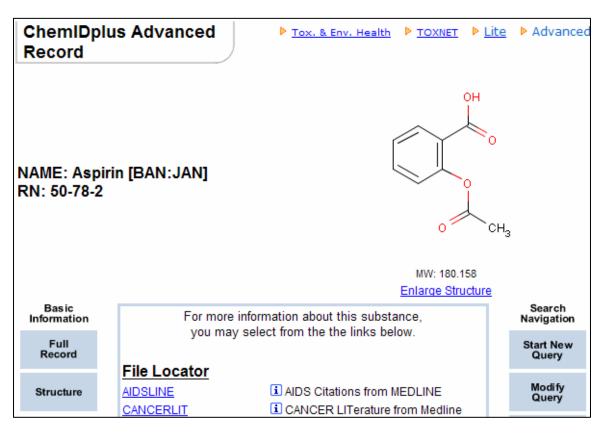
- Internet Locators link to web resources containing biomedical data
 Superlist Locators link to regulatory and scientific lists

Internet Locator	
ATSDR PHSs	 ATSDR Public Health Statements
ATSDR TOXFAQS	 ATSDR ToxFAQS
ATSDR Tox Profiles	 ATSDR Toxicological Profiles
EPA CRS	፤ EPA Substance Registry System
EPA Envirofacts	i EPA Master Chemical Integrator
NIOSH ICSC	 NIOSH International Chemical Safety Cards
NIOSH Pocket Guide	 NIOSH Pocket Guide to Chemical Hazards
NIST WebBook	፤ NIST Chemistry WebBook
NJ-HSES	 New Jersey Hazardous Substance Fact Sheets
Superlist Locator	
DOT	፤ DOT Hazardous Materials
IARC	 International Agency for Research on Cancer
MA	 Massachusetts Right-to-know Substances
MI	፤ Michigan Critical Materials Register
NJ	 New Jersey Right-to-know Substances
PA	 Pennsylvania Right-to-know Substances
PEL	 OSHA Toxic and Hazardous Substances
PELS	 OSHA Toxic and Hazardous Substances, 1989
REL	 NIOSH Recommended Exposure Limits
RQ	🗓 CERCLA Reportable Quantities
<u>S110</u>	 ATSDR Priority List of hazardous substances
TLV	i ACGIH Threshold Limit Values
TRI	i EPA Toxics Release Inventory
<u>VVHMI</u>	i Workplace Hazardous Materials Information

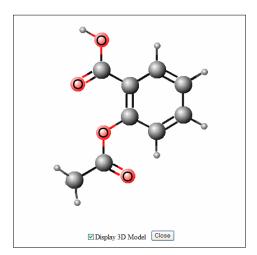
- The i button gives you more information about the Locator
- To view the results in any Locator, click on its name

Advanced Search (ChemIDplus Advanced)

- Allows chemical structure and biological/chemical property searching
- Provides structural drawings that can be manipulated
- To use ChemIDplus Advanced, you will need a web browser that has a recent version of Java installed



• After clicking the **Enlarge Structure** link, you will be able to display a threedimensional model of the structure



Practice Exercises

1. Find the Mercury releases in Houston, Texas. Which facility has the highest amount of releases?

2. What are the acute health effects associated with Victor Roach Killing Powder?

3. Find the chemical structure for Furosemide