Chemicals in Progress

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## **Design for the Environment**

DfE Concepts Are Being Integrated into OTS Activities

By Mark A. Greenwood Director, Office of Toxic Substances

A number of industries are adding environmental and health concerns to the factors they weigh when making business decisions. These industries have discovered the advantages of taking steps to prevent pollution in the early stages of product design, rather than continuing to dispose of or treat millions of pounds of waste and emissions each year. In doing so, they are joining a Design for the Environment (DfE) movement already under way in other nations, particularly in the European Community and Japan.

The central idea behind DfE is to lessen or eliminate the potential for pollution at its source by fundamentally altering products, processes, and social systems. This idea is very much consistent with the concept of "sustainable development," which was advanced in 1987 by the World Commission on Environment and Development. The goal of sustainable development is for industrial progress to continue (1) while allowing the earth and its organisms to sustain themselves and (2) without causing any deterioration in the environment or quality of life.

DfE is most effectively accomplished by anticipating every aspect of a product's life cycle, from production through disposal, while the product is still on the drawing board. For example, the typical car contains about 180 pounds of plastic. When a car is disposed of, however, the different plastics cannot be easily sorted, so it is not commercially practical to recycle them. To counter this problem, BMW introduced a new series of small cars in the United States last June in which the cars' plastics are stamped by type so they can be sorted quickly and accurately. This is one of the many "Design for" techniques being embraced by the auto and other industries. Design for Ease of Assembly, Design for Field Repair, and Design for Transportability are some other examples.

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## highlights

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- 6 New Chemicals Program:
  At the Vanguard of Protecting
  Health, Environment

### **OTS Is Reviewing Validity of CBI Claims**

Inappropriate Claims Keep Information from Public

In the past decade, the number of CBI claims has increased dramatically. EPA is taking steps to increase public access to information about toxic chemicals by reviewing and, when appropriate, challenging company claims of confidential business information (CBI) for data submitted under the Toxic Substances Control Act (TSCA).

Under section 14 of TSCA, EPA is required to protect CBI data from disclosure if disclosure is likely to harm a business's competitive position. However, inappropriate CBI claims improperly restrict the public's ability to independently evaluate chemical risks and to participate in the process to regulate chemicals.

In the past decade, the number of CBI claims has increased dramatically. In 1981, only 4 percent of the premanufacture notices filed with EPA contained information that was claimed CBI. By 1990, that figure had risen to 98 percent. Indications are that not all these CBI claims are valid.

In September 1990, OTS began to systematically challenge CBI claims. Attention was initially focused on health and safety studies required by TSCA section 8(d) and notices of substantial risk required by section 8(e) because section 14(b) of TSCA does not allow these submissions to be claimed as CBI. So far, OTS has challenged 80 section 8(d) CBI claims and 47 section 8(e) CBI claims. In every case, the submitter has amended the submission. OTS is beginning to review CBI claims made in Notices of

Commencement of Manufacture and Import under section 5 of TSCA and in submissions under the TSCA Inventory Update Rule.

"Public participation is a key component of OTS programs," OTS Director Mark A. Greenwood said. "Challenging CBI claims is an important means for improving the public's access to information about chemical risks and how OTS makes decisions about them."

OTS reviews CBI claims by asking the questions listed below. If the answer to any of these questions is "no," the submission may not meet the legal definition of CBI, and OTS may seek to make the information available to the public by challenging the claim.

- Does TSCA allow the information to be claimed as CBI?
- Is the information that is claimed as confidential known only to the company that is making the CBI claim?
- Has the company made reasonable efforts to ensure that the information is and will remain confidential?
- Is the information obtainable only from the submitter?
- Is disclosure of the information likely to cause substantial harm to the company's competitive position?

## **OTS Information Is Available through Many Sources**

Filing a FOIA Request Is Frequently Unnecessary

Test results, risk studies, environmental releases, and other data that industry submits to EPA's Office of Toxic Substances (OTS) are generally available to the public. Many people think that it is necessary to submit a request under the Freedom of Information Act (FOIA) to obtain these data. However, filing a FOIA request is frequently unnecessary. OTS has set up a number of systems to make data available to the public as easily as possible. Some of the information available without submitting a FOIA request is summarized below. Addresses and telephone numbers of the data sources are listed on page 4.

#### Substantial and significant risk studies

When a company obtains information that a chemical might pose a substantial risk to human health or the environment, section 8(e) of the Toxic Substances Control Act (TSCA) requires that the information be reported to EPA within 15 days. Section 8(e) submission summaries can be obtained from the TSCA Assistance Information Service (TSCA hotline) or the National Technical Information Service (NTIS). In addition, much of the information is available online through the Toxic Substances Control Act Test Submissions (TSCATS) database. The information reported may include data on chemical toxicity, exposure, epidemiology, monitoring, and environmental fate.

## Health and safety and toxic test data studies

Section 8(d) of TSCA requires indus-

try to submit to OTS copies of unpublished studies for a designated list of chemicals. Information about these studies is indexed and summarized in the TSCATS database. It takes approximately six months from the date of submission for this information to be available on TSCATS. If the information is required immediately, it is necessary to use the FOIA process.

## OTS has set up a number of systems to make data available to the public as easily as possible.

Under section 4 of TSCA, EPA can require chemical manufacturers and processors to test potentially harmful chemicals already in use and to develop data on the chemical's health and environmental effects. This information is indexed in the TSCATS database. The studies themselves can be purchased on microfiche from NTIS or Chemical Information Systems, Inc. They can also be reviewed and copied at the OTS Public Docket Room at EPA headquarters in Washington, D.C.

Additionally, prior to 1990, OTS prepared Chemical Hazard Information Profiles (CHIPs) on existing chemicals that were screened by EPA. CHIPs reports can be obtained from the TSCA hotline.

## Manufacture or import of a new chemical substance

Section 5 of TSCA requires any person who intends to manufacture or import a new chemical substance to provide EPA with all available data on the chemical structure, production, use, release, exposure, and health and environmental effects of the substance. Submissions may consist of a premanufacture notice (PMN), a polymer or low-volume exemption notice, or a test-marketing exemption application. Exemption applications and notices take certain production or chemical parameters into account that, if verified to meet requirements, exempt the manufacturer of the substance from being subject to a full PMN review.

Section 5 submissions are maintained and available for viewing in the OTS Public Docket Room at EPA head-quarters. Persons unable to visit the docket room or who need more information than is maintained in the docket may submit a written request for information. (The submitter of section 5 data may designate any part of the information supplied to EPA as confidential business information [CBI]. CBI data are deleted from all documents available to the public.)

#### Confidential Business Information (CBI)

Under section 14 of TSCA, EPA is required to protect CBI from disclosure. Therefore, FOIA requests for CBI will be denied. If the submitter

Sources continued on page 4

#### Sources continued from page 3

of the FOIA request appeals the denial, EPA will ask the company that filed the CBI to substantiate its claim. The information will be released if it is determined that it does not meet the legal criteria for CBI.

A company can obtain a copy of its own CBI submission to EPA by submitting a written request on company letterhead. The letter must name the person to whom the information is to be released, be signed by a corporate official (CEO, president, or vice president), and be notarized. It is inappropriate to use FOIA to request this information. The letter should be mailed to the OTS Document Control Officer, Office of Toxic Substances (TS-790), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

## TSCA Test Submissions System (TSCATS)

TSCATS is an index of unpublished, nonconfidential studies covering chemical testing results and adverse effects of chemicals on health and ecological systems. The studies are submitted by industry under several sections of TSCA. TSCATS is commercially available in many different formats in multiple media (online, microfiche, and CD-ROM) from numerous sources. The Office of Toxic Substances Chemical Library can provide additional information on how to access TSCATS.

EPA is seeking to improve the usefulness of these studies by increasing the number of studies abstracted in TSCATS, developing new TSCATS products (constituency-based indices, floppy diskettes, annotated bibliographies, CD-ROM), looking at ways to link TSCATS to other information sources, and increasing awareness of the service. OTS is also evaluating the addition of EPA's interpretation of the test data.

#### **TSCA** Inventory

Any chemical that has been manufactured, imported, or processed for a commercial purpose since 1977 is listed in the TSCA Inventory. The inventory is available at public libraries and all federal depository libraries. It can also be purchased

### Sources for OTS Information

#### **Government Printing Office**

c/o Superintendent of Documents Washington, D.C. 20402 (202) 783-3238

#### **National Library of Medicine**

TRI Representative, Specialized Information Services 8600 Rockville Pike Bethesda, MD 20894 (301) 496-6531

#### **National Technical Information Service**

5285 Port Royal Road Springfield, VA 22161 (703) 487-4650

#### **OTS Document Control Office**

U.S. EPA 401 M Street, S.W. (TS-790) Washington, D.C. 20460 Phone: (202) 260-1532 FAX: (202) 260-9555

#### **OTS Public Docket Office**

U.S. EPA 401 M Street, S.W. (TS-793) Room G-004, Northeast Mall Washington, D.C. 20460 (202) 260-7099

## Toxic Release Inventory User Support (TRI/US)

U.S. EPA 401 M Street, S.W. (TS-793) Room B-011, Northeast Mall Washington, D.C. 20460 (202) 260-1531

## TSCA Assistance Information Service (TSCA hotline)

U.S. EPA 401 M Street, S.W. (TS-799) Washington, D.C. 20460 Phone: (202) 554-1404 FAX: (202) 554-5603 TDD: (202) 554-0551

## Office of Toxic Substances Chemical Library

U.S. EPA 401 M Street, S.W. (TS-793) Room B-002, Northeast Mall Washington, D.C. 20460 (202) 260-3944

#### **CAS Online**

TSCA Inventory search requests: (800) 848-6533

#### **Dialog Information Services**

TSCA Inventory search requests: (800) ALERT91 (253-7891)
Online access to inventory: (800) 334-2564

#### Chemical Information Systems, Inc.

7215 York Road Baltimore, MD 21212 (301) 321-8440 (800) CIS-USER (247-8737) from the Government Printing Office (GPO) and NTIS. Additionally, CAS Online and Dialog Information Services, which are commercial services, provide inventory searches. Other companies may offer similar services in the future; contact the TSCA hotline for an up-to-date list. (Some of the information submitted to EPA for the inventory is CBI and is deleted from the version of the inventory that is available to the public.)

#### **Toxics Release Inventory**

Under section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, EPA collects information about environmental releases and off-site transfers of over 300 toxic chemicals. The information is compiled in the Toxics Release Inventory (TRI). The data are submitted annually to EPA by certain industrial facilities that employ 10 or more people and include names and addresses of facilities that manufacture, process, or otherwise use these chemicals. The data are available in several media and from several sources.

The "automated" version of the data, called the Toxics Release Inventory System, is available to the public through the National Library of Medicine's TOXNET system. TRI is easily searchable through a series of user-friendly menus. Calculations and other simple analytical capabilities are also provided. Data from 1987, 1988, and 1989 are currently available. In the spring of 1992,

1990 data will be added. For information about establishing an account and learning to search the TOXNET TRI database, contact the National Library of Medicine.

TRI data are available at federal depository libraries and many local public libraries. EPA has just produced the second CD-ROM version of TRI, which includes data from 1987, 1988, and 1989. This disk, as well as floppy disk versions of TRI and the microfiche versions, can be purchased from NTIS or GPO.

Local libraries or EPA's TRI User Support can help in locating the nearest library that carries TRI material.

## Toxic Release Inventory User Support Pilot (TRI/US)

TRI/US was established mainly to help occasional TRI users locate, identify, and retrieve TRI data. Support services include general TRI information and referrals, National Library of Medicine searches on TOXNET/TRI, the downloading or copying of TRI data to Lotus or dBASE floppy diskettes, and ad hoc TRI reports specially programmed for easy understanding and use. OTS began the TRI/US Pilot on October 1, 1990.

## Information is Needed Quickly in Emergency Situations

When a young child fell into a creek and received chemical burns on his feet from the mud sediment, the state in which he lived sought information about whether the mud was contaminated by toxic chemicals. The state requested that EPA provide information about the locations of chemical plants in the area and the chemicals produced at these plants. EPA was able to provide this information by searching its various databases.

In emergency situations such as this, federal, state, or local officials should

submit a letter on official letterhead to the OTS document control officer describing the information required and the circumstances that require prompt action. The letter can be faxed to the OTS Document Control Office at (202) 260-9555.

The document control officer will immediately search OTS databases and fax any relevant information found to the requesting party. The document control office will follow up by providing the information on paper, microfiche, or disk by mail.

### **New Chemicals Program**

Intervention to Prevent Risk Is Program's Basis

Evaluating chemicalrelated risks and making
decisions before a
substance enters the
marketplace is the best
way there is to prevent
pollution.

In recent years, EPA's New Chemicals Program has reviewed, on average, nearly 2,300 new chemical substances each year. The review allows the agency to anticipate how exposure to each substance may affect people or the environment. By assessing substances before they are manufactured or imported, the agency can act to prevent harmful exposure to people or the environment.

#### The PMN process

Anyone who plans to manufacture or import a new chemical substance must submit a premanufacture notice (PMN) to EPA at least 90 days prior to the activity. The New Chemicals Program, which is part of the Office of Toxic Substances (OTS), reviews PMN notices and identifies any new chemical substances that require regulatory action.

Section 5 of the Toxic Substances Control Act (TSCA) mandates review of new chemicals. The law, enacted by Congress in 1976, gives EPA broad authority to identify and control unreasonable risks from new substances.

TSCA defines a "new chemical" as any substance not listed on the Inventory of Chemical Substances, commonly referred to as the TSCA Inventory. The inventory, created in 1979, is a compilation of substances reported to EPA as being available in commerce at that time. Since 1979, substances have been added to the inventory when they complete the PMN process and enter commerce. About 70,000 chemicals are currently

on the TSCA Inventory. (Chemicals on the TSCA Inventory are called "existing chemicals." See *Chemicals-in-Progress Bulletin*, volume 12, number 3, for information about EPA's Existing Chemicals Program.)

#### Assessing potential risk

EPA toxicologists, chemists, biochemists, engineers, and scientists in other disciplines work together to predict the potential risks to humans or the environment from each new substance. To assess toxic hazards, they draw on data submitted with PMN forms, other information available to the agency, structure-activity relationships, and exposure and release modeling.

TSCA does not require that new chemicals be tested prior to PMN submission. However, manufacturers and importers must submit to EPA information on chemical identity, production volume, byproducts, use, environmental release, disposal practices, and human exposure. Also required is information about all existing health and environmental data in the possession of the PMN submitter, parent company, or affiliates and a description of any existing data known to or reasonably ascertainable by the submitter.

More than half of the PMN forms submitted do not include toxicological data. In these cases, OTS scientists assess the chemical's structural similarity to known toxic chemicals—called a structure-activity relationship—to predict toxicity. They generally focus on the relatively few

new chemicals of greatest concern—those that are structurally related to known toxic chemicals and those about which little is known.

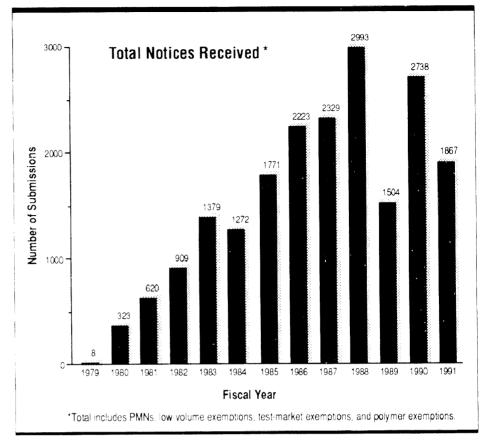
OTS's assessment of potential risk posed by new chemical substances incorporates an assessment of exposure. In the absence of data on the PMN substance itself and the activities surrounding its production and use, EPA reviewers must rely on a worst-case scenario to predict potential exposure.

TSCA requires EPA to weigh the possible risks from use of new chemicals against the potential benefits to society that the new substances can provide. Some new chemicals, for example, can replace more hazardous substances already on the market. If such a substitution is likely, EPA will try to minimize the regulatory burden on the new chemical.

#### Results of PMN review

Since 1979, the New Chemicals Program has reviewed almost 20,000 new substances. This figure includes nearly 16,000 PMNs and approximately 4,000 low-volume, test-market, and polymer exemptions. Almost 90 percent of the PMNs submitted complete the review process without being restricted or regulated in any way.

If it is determined that a new chemical substance may pose a risk to health or the environment, however, the agency can take action under section 5 of TSCA to control that risk. In some cases, EPA requires development of additional test data to address agency concerns. During the testing period, the agency may allow use of



the substance under controlled conditions through the negotiation of a TSCA section 5(e) consent order. The controls imposed through the consent order guard against unreasonable risks to health or the environment. EPA has signed 504 section 5(e) consent orders with industry since 1979.

If EPA determines that the potential risk from exposure to a substance cannot be mitigated by a section 5(e) consent order, the PMN submitter may choose to suspend review of the substance and voluntarily undertake additional testing to address EPA concerns. This has occurred in 401 cases. In cases where the agency determines that a new substance will present an unreasonable risk, section 5(f) of TSCA allows EPA to prohibit any commercial development or use of the substance. EPA has issued section 5(f) bans in four cases.

#### SNURs extend restrictions

Section 5(e) consent orders are binding only on the PMN submitter. Once a substance completes the PMN review and enters commerce, other companies can manufacture or import the substance without restriction. Consequently, EPA routinely follows the signing of a section 5(e) consent order with a significant new use rule (SNUR). New-chemical SNURs generally require manufacturers and importers to notify EPA before undertaking any activities not permitted by the section 5(e) consent order. EPA also uses SNURs when use of a new substance may present risks to health or the environment if exposures or releases differ from those described in the PMN

EPA issued 114 new-chemical SNURS from September 30, 1990,

New Chemicals Program continued on page 30



### **TSCA Section 4 Testing Is Yielding Important Data**

Last year, Midwest steel companies proposed using octylphenol to aid a biocide in dispersing zebra mussels from their cooling-water systems. To evaluate how discharge of octylphenol would affect the aquatic life of the Grand Calumet River and other streams into which it would be discharged, EPA Region 5, in Chicago, began a search for data.

Data were available from testing required under section 4 of the Toxic Substances Control Act (TSCA). This section of TSCA allows EPA to require industry to conduct testing of a chemical when insufficient test data exist on the toxic effects of the substance.

#### **Deciding testing needs**

The Interagency Testing Committee (ITC) recommended 4-(1,1,3,3-tetramethylbutyl) phenol—one of the isomers of octylphenol—for testing in 1982, and EPA implemented the testing recommendation in 1984. The majority of testing EPA requires under section 4 of TSCA is recommended by the ITC. Congress created the ITC to recommend industrial chemicals for testing and to coordinate testing of industrial chemicals conducted or sponsored by the 18 federal agencies represented on the ITC.

EPA and other federal agencies also spawn a number of testing initiatives. For instance, EPA used section 4 to obtain subchronic toxicity and chemical fate data on 33 chemicals being considered for delisting as hazardous wastes by the agency's Office of Solid Waste. EPA also recently proposed chemical testing that would meet

needs of both EPA's Office of Water and the federal Consumer Product Safety Commission. Rules have also been proposed to test high-production solvents that have exposure potential for neurotoxicity and other chemicals believed to cause developmental or reproductive effects.

#### Types of section 4 testing

The agency has used TSCA section 4 to require 439 health effects tests, 299 environmental effects tests, and 243 chemical fate tests since 1979. As a result, high-quality test data are now available on more than 175 chemicals. Tests on additional chemicals are being completed, and EPA has proposed testing for another 93 chemicals.

Whether the testing required under section 4 is comprehensive or selective depends on gaps in existing information. For some chemicals, a lack of health effects data necessitates a complete test battery that includes pharmacokinetics, acute, subchronic, developmental, reproductive, neurological, mutagenic, and carcinogenic testing. For most chemicals, though, fewer and more selective tests are required to fill data gaps or to determine whether a potentially unreasonable hazard exists. Screening-level tests may also be required to help determine the need and priority for more comprehensive testing.

EPA may require industry to provide (1) environmental testing, which typically includes acute fish, invertebrate, and algal tests; (2) chronic fish (early life stage) and invertebrate testing when acute toxicity levels are indicated in short-term studies; (3) bioconcentration or sediment toxicity testing when chemicals have a propensity to accumulate in fat or sorb to sediments; (4) chemical fate testing to evaluate sorption to soils and sediments; and (5) tests to determine biodegradation, water solubility, volatility, hydrolysis, or photolysis.

#### Information pays off in decision making

Testing efforts and data sharing are starting to pay off. In the case of 4-(1,1,3,3-tetramethylbutyl) phenol, the data demonstrated that the compound is extremely toxic to aquatic life and persists in the environment.

Using these data, EPA Region 5 concluded that octylphenol should not be discharged into the Grand Calumet River or other streams with similar hydrological conditions. EPA also established that discharge of octylphenol into the water would exceed the standard permitted by the Clean Water Act. Thus, EPA Region 5 decided it was unable to approve the proposed use of octylphenol and is continuing to file objections to all steel company applications for state National Pollutant Discharge Elimination System permits to use octylphenol as a dispersant.

#### Public access to test data

An index to the test data is available through the Toxic Substances Control Act Test Submissions (TSCATS) database. TSCATS is accessible online through a number of vendors. See page 4 for more information about how to access TSCATS.

#### **EPA Provides Grant to Establish Pollution Prevention Center**

A national pollution prevention center will be established at the University of Michigan in Ann Arbor. The center will develop coursework in pollution prevention that can be used in undergraduate and graduate classes in engineering, business, and natural resources. The curricula will be provided to other colleges and universities once they have proved successful at the University of Michigan.

In addition to developing pollution prevention curricula, the center will work with industry, professional associations, environmental groups, and other universities to more effectively reduce pollution. This outreach effort will include arranging student internships at business and industrial facilities, offering depart-

mental and interdepartmental seminars for faculty members, and offering short summer courses in business and engineering for professionals.

The center will work with industry, professionals, environmental groups, and other universities to reduce pollution.

The university began development of the center in October 1991 with a \$320,000 pollution prevention grant from EPA. The University of Michigan will provide \$161,012 during the center's first three years of operation. The university is seeking additional funds from the business community and professional associations.

Choices about environmental controls should not assume that pollution generated by production is a given, EPA Deputy Administrator Hank Habicht said. "The best way to make sure that people think about preventing pollution as a routine part of every plan to construct or modify a production process is to teach them why it should be a part of their basic business or engineering education," he said.

EPA and the University of Michigan announced establishment of the center in September 1991. Twenty-eight colleges and universities submitted proposals to EPA for the pollution prevention center.

## **EPA Proposes Ban on Acrylamide and NMA Grouts**

On October 2, EPA issued a proposed rule under sections 6(a) and 8(a) of the Toxic Substances Control Act (TSCA) to prohibit the manufacture, distribution, and use of acrylamide grout (56 FR 49863). The proposed rule would also prohibit all uses of N-methylolacrylamide (NMA) grout, except for sewer line repair. After a period of three years, the proposed rule would also prohibit the manufacture, importation, and distribution in commerce of NMA grout for any purpose and the use of NMA grout for sewer line repair.

The proposed rule is intended to reduce risks faced by workers exposed to acrylamide, a potent human neurotoxin and a probable human carcinogen. NMA is a derivative of acrylamide and is used for the same applications as acrylamide grout.

Of all known uses of acrylamide, sewer grouting has been identified as the application that presents the greatest potential worker exposure. Workers who use acrylamide grout for sealing sewer lines, manholes, and other minor applications are exposed

through inhalation and dermal contact. Although there is less evidence on the health effects associated with exposure to NMA, EPA believes that they are comparable to those associated with exposure to acrylamide.

The deadline for written comments on the proposed rule was January 16, 1992.

## **Summary of Existing Chemicals Program's RM2 Activity**

EPA's Office of Toxic Substances (OTS) screens, establishes testing requirements for, assesses, and develops strategies for managing risks posed by chemicals currently in production or use. This is accomplished through the Existing Chemicals Program.

The Existing Chemicals Program has two levels of review: Risk Management One (RM1) and Risk Management Two (RM2). RM1 review identifies chemicals for placement on the Risk Reduction List. The list is the bridge between RM1 and RM2. RM2 begins when a chemical is selected from the Risk Reduction List for review.

Activity in RM2 focuses on (1) improving understanding about hazards posed by and levels of exposure to particular chemicals and (2) developing and adopting strategies to reduce or eliminate risks posed by individual chemicals to human health or the environment. RM2 activities

through September 1991 are summarized in the accompanying chart. (RM1 activities were described in *Chemicals-in-Progress Bulletin*, volume 12, number 3.) Persons interested in obtaining more information on a chemical or decision listed in the chart can visit or contact the OTS Public Reading Room, NE-G004, 401 M Street, S.W., Washington, D.C. 20460; phone, (202) 260-7099. The room is open from 8 a.m. to noon and 1 p.m. to 4 p.m., Monday through Friday.

#### RM2 Chemical Activities as of October 1991

Chemical Name	RM1 Decision	RM2 Decision
1, 1, 2, 2-Tetrachloroethane	Dropped from further review	
1, 2-Dibromoethane	Dropped from further review	
1, 2-Dichloroethane	Risk reduction	RM2 risk-management analysis begun. Letter of concern sent Aug. 13, 1991. RM strategy determination Nov. 1991
1, 2 Dichloropropane	Risk reduction	Entered in queue for RM2 analysis
2-Ethylhexanoic acid	Dropped from further review	
2-Nitropropane	Risk reduction	RM2 risk-management analysis begun
2-Phenoxyethanol/acetate	Will be evaluated in RM2 as part of the in	door air cluster
2, 6-Dimethylphenol	Testing	
3,3 Dichlorobenzidine	Risk reduction under benzidine dye cluster	RM2 risk-management analysis begun
4-Vinylcyclohexene	Testing	
Acetophenone	Testing	
Acrylic acid	Testing	
Acrylonitrile	Risk reduction	RM2 risk-management analysis begun. Letter of concern sent June 19, 1991. RM strategy determination Oct. 1991
Aniline	Risk reduction	Entered in queue for RM2 analysis
Antimony and compounds	Dropped from further review	
Aryl phosphates	Testing	
Benzidine dye cluster	Cluster formed at C.I. Direct Blue 15 RM1 meeting	RM2 risk-management analysis begun
Brominated flame retardants	Testing	

## RM2 Chemical Activity as of October 1991

Chemical Name	RM1 Decision	RM2 Decision
Bromoethane	Risk reduction	Entered in queue for RM2 analysis
Butyraldehyde	Testing	
C.I. (color index) Direct Blue 15	Risk reduction under benzidine dye cluster	RM2 risk management begun
C-9 aromatic hydrocarbons	Dropped from further review	
Carpet emissions reduction program	Risk reduction	RM2 risk-management analysis begun
Chloranil/violet blue 23 (dioxin contamination issue)	Risk reduction	RM2 risk-management analysis begun
Chlorinated paraffins	Risk reduction	RM2 risk-management analysis begun. Letter of concern sent Aug. 2, 1991
Chloroethane	Risk reduction	RM2 risk-management analysis begun
Cresols	Dropped from further review	
Cumene	Added to paints/coatings cluster after R	M1 meeting
Cyclohexane	Testing	
Cyclohexanone	Dropped from further review	
Dicyclopentadiene	Dropped from further review	
Diisodecylphenyl phosphite	Dropped from further review	
Diisocyanates	Rescheduled for October 1991	
Ethyl acetate	Testing	
Formaldehyde/pressed wood	No RM1 meeting. Risk management up	nder way
Glycidol	Testing	
Hydrazine	Risk reduction	RM2 risk-management analysis begun. Letter of concern sent Aug. 2, 1991
Hydrogen cyanide	Dropped from further review	
Hydroquinone	Risk reduction	Entered in queue for RM2 analysis
Isophorone	Dropped from further review	
Mesityl oxide	Testing	
N,N-Dimethylaniline	Testing	
Oleylamine	Dropped from further review	
Persistent bioaccumulators cluster of chemicals	Testing	
Phenol	Testing	
Phosphoric acid production wastes	Risk reduction	RM2 risk-management analysis begun
Propylene glycol, t-butyl ether	Dropped from further review	
Propylene oxide	Dropped from further review	
Refractory ceramic fibers	Risk reduction	RM2 risk-management analysis begun
Sodium cyanide	Risk reduction	RM2 risk-management analysis begun
o-Toluidine	Risk reduction	Entered in queue for RM2 analysis
Vinyl acetate	Added to paints/coatings cluster and re-	evaluation on completion of exposure studies

## Test Data for SIDS Chemicals Being Developed by OECD Member Nations

Thirteen nations are working cooperatively to develop base-level data for chemicals that are produced in large quantities worldwide. The voluntary effort focuses on substances of potential health or environmental concern for which few test data are currently available publicly.

The testing effort, known as the Screening Information Data Set (SIDS) program, is being conducted under the auspices of the Organization for Economic Cooperation and Development (OECD). (See Chemicals-in-Progress Bulletin, volume 12, number 1, for information about the SIDS program.) The chemicals the program covers are among the more than 1,300 high-volume substances listed in the OECD's inventory of international high-volume chemicals. Such chemicals are manufactured (1) in excess of 1,000 tons a year in two or more OECD member countries or (2) in excess of 10,000 tons a year in one OECD member country.

Testing on more than 30 SIDS chemicals is due to be completed in late spring 1992. The U.S. chemical industry has responsibility for nine of these chemicals. Participating companies are Dow Chemical, DuPont, Eastman Kodak, Exxon, Silicones Health Council, 3M Company, and Union Carbide.

The OECD has assigned responsibility for 61 additional SIDS chemicals to member countries, and a second round of testing will begin soon.

The United States has responsibility for 12 of these chemicals. Allocation of responsibility for a third round of

## Schedule of SIDS Testing

A step-by-step schedule of the SIDS testing program is shown below. Following allocation of chemicals, the OECD collects any existing information on the chemicals. This information is evaluated, and participating nations propose a testing plan to fill any gaps in information. After member countries review the testing plan, test data are developed.

	Round 1	Round 2	Round 3
Allocation of chemicals to OECD countries	April 1990*	Sept. 1991*	Nov. 1991*
Request for available data sent out by OECD	April 1990*	Sept. 1991*	Dec. 1991*
Data received by OECD	Aug. 1990*	Jan. 1992	April 1992
Dossiers and SIDS testing plans prepared by lead country	Oct. 1990*	May 1992	Aug. 1992
Dossiers reviewed by OECD countries and agreement reached on testing plans	Nov. 1990*	Sept. 1992	Dec. 1992
SIDS testing started	May 1991*	Dec. 1992	March 1993
SIDS testing completed	May 1992	Feb. 1994	June 1994
Initial review meeting to set priority for further work	Oct. 1992	To Be Determined	To Be Determined

<sup>\*</sup> Activity completed

SIDS chemicals was assigned in November 1991 and involved approximately 40 additional chemicals. The United States was assigned 15 chemicals.

#### Issues resolved

At a meeting in spring 1991, OECD members resolved several issues about how to handle high-volume chemicals used solely as intermediates. Members agreed on the hazard and exposure information needed to assess intermediates; they also agreed to defer handling of intermediates under the SIDS program.

#### Workshops

A workshop was held in December 1991 on the analysis of environmental release and exposure for SIDS chemicals. Another workshop is scheduled for February 1992 on the analysis of consumer and occupational exposure for SIDS chemicals.

#### For more information

For more information about the SIDS program, contact the TSCA Assistance Information Service (TSCA hotline). See page 32 for information about how to contact the TSCA hotline.



## OECD Assigns 61 Chemicals to Member Nations

CAS Number	Chemical Name	Nation Conducting Tests
57136	Urea	Finland
74851	Ethylene	Netherlands
75865	Acetone cyanhydrin	United Kingdom
76039	Trichloroacetic acid	Germany
78933	Methyl ethyl ketone	United States
78977	Propanenitrile, 2-hydroxy-	Japan
79118	Chloroacetic acid	Sweden
80433	Dicumyl peroxide	Belgium
95487	o-Cresol	France
95738	2,4-Dichlorotoluene	Japan
97654	Butanedioic acid, methylene-	France
98566	Benzene, 1-chloro-4-(trifluoromethyl)-	Italy
100210	Terephthalic acid	Italy
104949	4-methoxy-aniline	Germany
105055	Benzene, 1,4-diethyl-	Japan
105760	Maleic acid, dibutyl ester	Austria
106989	1-Butene	Canada
107211	Ethylene glycol	Canada
107664	Phosphoric acid, dibutyl ester	Japan United Kingdom
108010	Dimethylaminoethanol	United Kingdom
108101	M.I.B.K	United States
108247	Acetic anhydride	Canada
108781	Melamine	Austria
108838	Di-iso-Butyl ketone	France
108996	3-Picoline 1-Amino-3-dimethylaminopropane	Belgium
109557 109693	Butane, 1-chloro-	Germany Japan
111115	Methyl caprylate	United States
111400	Diethylenetriamine	Netherlands
111422	Diethanolamine	United Kingdom
111660	1-Octene	United States
111820	Dodecanoic acid, methyl ester	United States
112185	N.NDimethyldodecylamine	Germany
112414	1-Dodecene	United States
115184	3-Buten-2-ol, 2-methyl- C5H10O	Switzerland
115195	3-Butyn-2-ol, 2-methyl- C5H8O	Germany
120616	Dimethyl terephthalate	italy
121142	Benzene, 1-methyl-2,4-dinitro-	Germany
124185	n-Decane	Italy
126998	Chloroprene	Germany
151213	Sodium lauryl sulfate	Germany
294622	Cyclododecane	France
482893	3H-Indol-3-one, 2-(1,3-dihydro-3-oxo-2H-	Japan
527606	Phenol, 2,4,6-trimethyl-	Netherlands
592416	1-Hexene	United States
629594	Tetradecane	Italy
793248	1,4-Benzenediamine, N-(1,3-dimethylbutyl	Germany
1120361	1-Tetradecene	United States
1912249	Atrazine	Switzerland
2524030	Dimethyl chlorothiophosphate	United States
2524041	Diethyl chlorothiophosphate	United States
2581342	Phenol, 3-methyl-4-nitro-	Japan Polaium
3039836	Ethenesulfonic acid, sodium salt	Belgium Sweden
3926623 4259158	Acetic acid, chloro-, sodium salt Phosphorodithioic acid, O,O-bis(2-ethylh	United States
4461523	Methanol, methoxy-	Japan
5281049	D and C Red No. 7	Japan
6846500	2,2,4-Trimethyl-1,3-pentanediol	Japan
24800440	Tripropylene glycol	Japan Japan
26444495	Phosphoric acid, methylphenyl diphenyl e	Japan Japan
28629665	Phosphorodithioic acid, O,O-diisooctyl e	United States
_5525555	· Hopholodianolo dold, O,O dilocoty) b	Jimos Julios

Note: If you have information on any of these chemicals, please contact Charles Auer, director of EPA's Existing Chemical Assessment Division, through the TSCA Assistance Information Service (TSCA hotline). See page 32 for information on how to contact the hotline. Or, contact Sandra L. Tirey, of the Chemical Manufacturers Association (CMA), 2501 M Street, N.W., Washington, D.C., 20037; telephone, (202) 887-1274; FAX, (202) 887-1237.

#### **Design for the Environment**

Design continued from page 1

#### OTS is establishing four DfE initiatives

Any business—whether it is a part of the agricultural sector, the energy sector, or any other—can find ways to integrate DfE principles into its activities. In the Office of Toxic Substances (OTS), we have traditionally focused on the industrial manufacturing sector. Currently, we are making DfE principles a driving force in many OTS programs, a force that will help set the direction for OTS activity in the future.

OTS is establishing four initiatives that put DfE principles into action. My hope is that these initiatives will stimulate industry to voluntarily shift toward designing chemicals, processes, and end products that are environmentally sound.

#### Clean Production Program

As its name indicates, OTS's new Clean Production Program is much more than a means to address concerns about individual chemicals—it is a broad effort to promote development of cleaner, more environmentally sound technological processes.

A principal tool in implementation of the Clean Production Program will be "use clusters"—groups of chemicals used for the same or similar purposes, such as paint strippers. By examining use clusters, rather than single chemicals, OTS can evaluate potential risks from all chemical substances and technologies associated with a use and identify safer substitutes and cleaner tech-

nologies. The use cluster concept will encompass new, as well as existing, chemicals. Once a cluster has been defined, OTS will search the New Chemicals Program's database of substances submitted for premanufacture review. New substances that fit into the cluster will be added to it.

The Clean Production Program will use three primary criteria to set priorities for addressing particular processes and use clusters: (1) potential for reducing risk; (2) the significance of the process or use to multiple program initiatives across EPA, both regulatory and nonregulatory; and (3) the importance of the process or chemical to agency pollution prevention efforts, including the ongoing 33/50 Program (a program to encourage industry to voluntarily reduce use of 17 highly toxic chemicals). Clusters identified through OTS's Existing Chemicals Program and from a list used by the European Community will also be considered.

Using information developed through use cluster analyses, OTS will work with companies to apply DfE principles to particular areas of concernmamely, to identify substitute chemicals and technologies that are most promising from an environmental perspective. For the public and industry, the Clean Production Program will provide a clearer picture of EPA's assessment of the relative risks of substances and technologies, as well as information about substances for which EPA is considering regulatory or other action.

#### Chemical Design Project

The traditional approach to synthesizing chemicals is to produce the greatest yield at the least cost. Many of the synthetic steps, or synthetic pathways, that produce high yields also generate toxic byproducts or use high-risk solvents and catalysts. These toxins could be reduced or eliminated from the process if alternative synthetic sequences were found.

This is a relatively new concept that OTS would like to encourage among researchers in the field of synthetic organic chemistry. We are considering two options: (1) funding several conferences to encourage academia and industry to investigate environmentally safer pathways for chemical synthesis or (2) funding basic research at a number of universities to develop examples of alternative pathways.

OTS's ultimate goal is to facilitate widespread use of environmental criteria in devising synthetic sequences. This has the potential to minimize or eliminate the pollution from toxic wastes that now results from chemical synthesis.

#### **Printing Industry Pilot**

OTS is helping the printing industry design a pollution prevention program, which will integrate DfE principles and use cluster screening. OTS will produce several guides on incorporating pollution prevention measures into print shop operations, conducting a pollution prevention audit, and identifying safer substitutes for chemical substances and technologies now in use.



Most printing companies are small, and this joint effort with Printing Industries of America, a trade association, gives us the opportunity to work with firms that do not generally have much interaction with OTS.

#### Pollution Prevention Center

OTS is providing funds to establish a pollution prevention center at the University of Michigan. The pollution prevention center will develop curricula that apply DfE principles, rather than a pollution-control perspective. The curricula will be provided to other colleges and universities for use in engineering, business, and natural resources courses. Graduate students and professionals who participate in university programs will then have the necessary background to implement DfE principles in their work. (See page 9 for more information about the pollution prevention center at the University of Michigan.)

#### DfE is an evolving concept

It is too soon to say how the DfE movement will mature. It has great potential, however, to change the nature of many decisions about chemical development and use. In OTS, we view our role in DfE as that of helping to set the pace of change through cooperative programs with industry, academia, and other government programs. We think we are making a good start, and we plan to continue to seek ways to apply DfE principles to achieve EPA's pollution prevention objectives.

## 92 Companies Receive Letters of Concern About Four Chemicals

The Office of Toxic Substances (OTS) has sent letters to 92 companies asking them to reduce or eliminate generation of four chemicals—acrylonitrile, hydrazine, chlorinated paraffins, and 1,2-dichloroethane. During a preliminary review, EPA identified a potential risk to human health or the environment from each of the chemicals. OTS is now undertaking a more intensive assessment of the four chemicals through its Existing Chemicals Program.

While the chemicals are in the next stage of agency review, OTS is asking industry to voluntarily implement measures to prevent pollution when using the chemicals. OTS Director Mark A. Greenwood has sent letters stating the agency's concerns about the chemicals to companies with facilities that manufacture, process, or use any of the chemicals. Mr. Greenwood also asked the companies to submit any additional hazard or exposure data in their possession that would help EPA fully assess the chemicals' risks.

OTS has not evaluated pollution prevention measures for each facility that uses the chemicals, and is therefore unable to recommend specific pollution prevention measures to the firms. However, such measures may be addressed when OTS completes its full assessment of the chemicals. During the full assessment, OTS will review hazard and exposure issues,

pollution prevention activities, and risk management options.

The OTS "letters of concern" are an example of agency efforts to encourage voluntary pollution prevention activities by industry. As additional chemicals that pose potential risk to human health or the environment are identified, OTS will continue to use the letters, prior to taking any regulatory action, to request that companies initiate pollution prevention measures.

## List of Chemicals

Chemical/				
Chemical Group	Potential Risk			
Acrylonitrile	Carcinogenicity			
Hydrazine	Carcinogenicity			
Chlorinated paraffins	Ecotoxicity			
1,2-Dichloroethane	Carcinogenicity			

## Justice Department and EPA Take Action to Enforce Lead Laws and Regulations

Use of Six Environmental Statutes Broadens Effect of Agency's Enforcement Program

The Department of Justice and EPA have begun an enforcement initiative to reduce lead exposure to the public and the environment, with particular emphasis on reducing risks associated with high blood lead levels in children. In July 1991, the Justice Department filed 24 judicial enforcement actions in the nation's federal courts while EPA took administrative action against 12 facilities and assessed more than \$10 million in penalties.

The initiative is the first in which EPA has coordinated enforcement actions directed at a specific pollutant through the simultaneous use of different environmental laws. Used together, the statutes address a number of lead compliance problems across the nation. The statutes cited in the enforcement actions were the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act (also known as the Superfund law), the Clean Water Act, the Safe Drinking Water Act, the Clean Air Act, and the Emergency Planning and Community Right-to-Know Act.

The enforcement actions are part of EPA's Strategy for Reducing Lead Exposures, which the agency issued in February 1991. EPA is working under the lead strategy to significantly reduce lead exposures through enforcement, pollution prevention control programs, and education and training activities.

Lead causes a variety of health and environmental problems. It is a highly toxic metal, producing a range of acute and chronic health effects, particularly in children and fetuses. Effects include nervous and reproductive system disorders, delays in neurological and physical development, cognitive and behavioral changes, and hypertension.

## EPA Proposes Penalty for Alleged Violations of TSCA Section 8(e)

EPA has proposed a \$175,000 penalty against Halocarbon Products Corp., a specialty chemical manufacturer, for allegedly violating section 8(e) of the Toxic Substances Control Act (TSCA). Section 8(e) of TSCA requires that anyone who obtains information that reasonably supports the conclusion that a chemical presents a substantial risk of injury to health or to the environment report that information to EPA.

During a manufacturing process used by Halocarbon, on or about February 1, 1989, crackertrap residue was released at the company's facility in Hackensack, New Jersey. At least two workers were exposed to the substance, and three days later, one worker died of lung injuries and another was severely incapacitated. Crackertrap residue contains untreated chlorotrifluoroethylene, monochloropentafluoropropene, and other materials.

An EPA inspection uncovered the company's failure to inform the agency of the health effects of the release—the death and injury—and the agency filed an administrative

complaint against the company in July 1990.

Halocarbon Products Corp. argued that the company had notified the Occupational Safety and Health Administration of the death and injury of the workers and that this notification discharged the firm of its responsibility to submit the information to EPA under section 8(e) of TSCA. In July 1991, EPA Administrative Law Judge Frank Vanderheyden rejected the company's argument. The case is pending.

## Company Agrees to Pay \$2.2 Million Penalty for PMN Violations

Fine Is Largest Ever Imposed by EPA for a New-Chemical Violation

EPA and Moore Business Forms Inc., of Illinois, have signed a consent agreement settling charges that the company made or imported six new chemical substances without notifying EPA. Moore agreed to pay a \$2.2 million penalty, which is the largest fine ever imposed for violating the new-chemical provisions of the Toxic Substances Control Act (TSCA). Section 5 of TSCA requires that EPA be notified at least 90 days before a new chemical is imported or manufactured

The company disclosed the violations to EPA after discovering the problem during an internal audit. EPA proposed a penalty of \$11.1 million for the violations. Due to the immediate disclosure of the violations, however,

the agency reduced the fine by half. The penalty was reduced by another 30 percent to reflect the company's willingness to implement additional compliance measures.

In the complaint, EPA also cited Moore for failing to comply with section 13 of TSCA, which requires that importers provide a statement to the U.S. Customs Service certifying that any chemical substances being brought into this country are in compliance with U.S. laws.

The consent agreement is the first to include an Emergency Planning and Community Right-to-Know Act (EPCRA) compliance audit and an EPCRA compliance program. In the consent agreement, Moore officials

agreed to (1) complete compliance audits at its U.S. facilities to encompass sections 5, 8, and 13 of TSCA and sections 304, 311, 312, and 313 of EPCRA and (2) implement a corporatewide compliance program for TSCA and EPCRA. The TSCA and EPCRA audits are to go back to 1981 in some cases. Stipulated penalties up to \$50,000 are to be paid for specific violations discovered in the audit.

The six chemicals were used in carbonless copy paper, computer paper, and note pads that Moore developed at the company's research facility on Grand Island in New York. The products were manufactured in a number of facilities across the country and sold nationally.

## **EPA Seeks Penalties for Failure to Comply with PMN Rules**

In separate actions, EPA has issued administrative complaints against two major chemical companies for failing to provide the agency with premanufacture notices (PMNs) prior to importing or manufacturing new chemical substances. PMNs are mandated by section 5 of the Toxic Substances Control Act (TSCA).

■ EPA is seeking more than \$2 million in penalties for 273 separate violations of TSCA by Allied Colloids, Inc., of Suffolk, Virginia. The complaint alleges that since 1983, Allied Colloids imported and manufactured seven new

chemical substances in the United States and distributed them for commercial purposes. The company failed to submit PMNs for these substances. The complaint also alleges that the company falsely certified or failed to properly certify importation of the substances under section 13 of TSCA and that it failed to submit timely notices of commencement of manufacture or import.

■ EPA assessed penalties of more than \$4.75 million against Mobay Corporation, of Pittsburgh, Pennsylvania, for over 400 violations of

TSCA. The agency alleges that Mobay falsely certified that imports of new chemical substances were in compliance with TSCA, filed incomplete PMNs that did not include all the known trade names and intended uses for the chemical substances, provided false information to EPA regarding the dates that certain substances were first imported, improperly reported certain substances to the TSCA Inventory during the initial reporting period, and submitted inaccurate or unsupported TSCA Inventory update information.

## Company Agrees to Pay Fine for Testing Violations Under TSCA Section 4

A&D International, a small chemical import company, has agreed to pay a \$12,000 fine to settle charges that it failed to meet testing requirements of the dioxin/furan test rule (40 CFR 766). Under section 4 of the Toxic Substances Control Act (TSCA), EPA can require chemical makers and importers to test chemicals that pose an unreasonable risk to human health or the environment.

EPA proposed a fine of \$26,500 for three charges that the company failed to file testing documents in a timely manner, failed to follow agency-approved test protocols, and failed to ensure that the tests complied with EPA's Good Laboratory Practices. EPA reduced the penalty after A&D documented it was unable to pay the proposed fine. The company also agreed not to manufacture or import chloranil or to encourage anyone else to import chloranil. Chloranil was part of the dioxin/furan test rule because of the likelihood that its production will result in dioxin/furan contamination.

## **Other Enforcement Actions**

- EPA has proposed a penalty of \$131,000 against British Airways Ltd. for failing to comply with PCB regulations at the airline's facility at JFK International Airport in New York City. The airline was cited for failure to properly mark PCB areas and PCB transformers, keep quarterly inspection and maintenance records, and prepare and maintain an annual report of PCB activities over several years.
- EPA signed consent agreements with five companies that had failed to file Toxics Release Inventory (TRI) reports. The companies agreed to pay penalties totaling \$114,900 and to make improvements at their facilities to benefit the environment. The companies, which are all based in New York, are Crawford Furniture, Jamestown; Endicott Forging and Manufacturing, Endicott; Falconer Metals Specialties, Lakewood; John Mezzalingua Associates, Manilius; and Tel-Tru Manufacturing, Rochester.

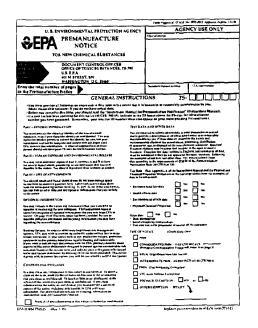
## Update: Carpet Policy Dialogue

Several voluntary testing programs to evaluate and reduce the total emissions of volatile organic compounds from carpet and carpet-related materials have been established through the Carpet Policy Dialogue. Descriptions of the testing programs follow.

- The Carpet Cushion Council signed an agreement in September 1991 to voluntarily test total emissions of volatile organic compounds from carpet cushion.
- The Floor Covering Manufacturers
  Committee of the National Association of Floor Covering Distributors signed an agreement in September 1991 to voluntarily test the total emissions of volatile organic compounds from adhesive products used in carpet installations.
- The Carpet and Rug Institute began a voluntary testing program in June 1991 to evaluate the total emissions of volatile organic compounds from carpets.

Information has also been developed about installation technology and practices that may limit emissions of volatile organic compounds from carpet, carpet cushion, installation adhesives, and styrene butadiene latex.

EPA began the Carpet Policy Dialogue in August 1990. Representatives of carpet and carpet-related industries, public interest groups, labor, EPA, and other federal agencies participated in the project.



#### **New PMN Form**

EPA is gathering information about measures taken by industry to prevent pollution. An increasing number of companies are voluntarily providing the data when they submit the premanufacture notice (PMN) form, which is required prior to manufacturing or importing new chemical substances.

The PMN form has been revised to include a page on which submitters can describe efforts to reduce exposures to or releases of a new substance.

Since the revised PMN form became available in March 1991, six out of every 10 PMN forms submitted to EPA have included pollution prevention information. The agency will use the data in assessing the potential health and environmental implications of the new substances.

Copies of the new form and instruction manual are available from the TSCA Assistance Information Service (TSCA hotline). For information on how to contact the hotline, see page 32.

## 33/50 Program

The 33/50 Program is designed to encourage industry to reduce use of 17 highly toxic chemicals through voluntary actions. By late August, EPA had invited about 6,000 companies to participate in the program. These companies own or operate more than 12,000 facilities that reported releasing one or more of the 17 chemicals in 1988.

According to the Toxics Release Inventory (TRI), 1.4 billion pounds of the 17 chemicals were released to the environment or transferred to waste management facilities in 1988. The goal of the 33/50 Program is to reduce these emissions by 33 percent by the end of next year and by 50 percent—or 700 million pounds—by the end of 1995.

EPA initiated the pollution prevention program a year ago. At that time, 600 companies identified as generating the greatest amount of

the 17 chemicals were invited to participate. Since July, the agency has received 100 new commitments to participate in the program. This is in addition to the commitments already on record from 247 companies to cut 262 million pounds of releases and transfers of these chemicals by 1995. A number of companies have also extended their commitments (1) to other chemicals (in some cases, to all chemicals covered by TRI, the Clean Air Act, or other regulatory programs) and (2) to

some or all of their facilities in other countries.

Despite this encouraging early response, the participation of many more companies will be necessary to dramatically cut chemical emissions. Industry's response to the most recent round of letters and the ability of individual companies to meet their reduction targets—and then keep on reducing—will determine whether the 33/50 Program meets its 1995 goal.

## Chemicals Targeted by the 33/50 Program

- Benzene
- Cadmium and compounds
- Carbon tetrachloride
- Chloroform
- Chromium and compounds
- Cyanides
- Dichloromethane
- Lead and compounds
- Mercury and compounds

- Methyl ethyl ketone
- Methyl isobutyl ketone
- Nickel and compounds
- Tetrachloroethylene
- Toluene
- Trichloroethane
- Trichloroethylene
- Xylene(s)

## **Seven Chemicals Added to TRI Reporting List**

The chemicals listed in the next column were added to the list of toxic chemicals subject to Toxics Release Inventory (TRI) reporting requirements in 1991. TRI reports include the maximum amounts of the chemicals stored at reporting facilities during the year; the names and locations of off-site facilities to which toxic wastes were shipped; and the treatment or disposal methods used for wastes. TRI data are available to the public. See pages 4 and 5 for information on how to obtain TRI data.

CAS Number	Chemical Name
75-63-8	Bromotrifluoromethane (Halon 1301)
75-69-4	Trichlorofluoromethane (CFC-11)
75-71-8	Dichlorodifluoromethane (CFC-12)
76-14-2	Dichlorotetrafluoroethane (CFC-114)
76-15-3	(Mono)chloropentafluoroethane (CFC-115)
124-73-2	Dibromotetrafluoroethane (Halon 2402)
353-59-3	Bromochlorodifluoromethane (Halon 1211)

## **Toxics Release Inventory Section 313 Petitions**

		Submitter	Requested	Deadline	Proposed Rule FR Pub Date	Final Rule or Denial Pub Date
PETITIONS	DENIED					
11/25/86	Inorganic Fluorides	Safe Water Foundation of Texas	List	1 1	1 1	05/29/87
04/30/87	Orthophenylphenol	Dow Chemical Company	Delist	1 1	1 1	10/29/87
05/15/87	Cobalt & Compounds	Hall Chemical Company	Delist	1.1	1 1	12/03/87
05/15/87	Nickel & Compounds	Hall Chemical Company	Delist	1 1	1 1	12/03/87
05/15/87	Manganese & Compounds	Hall Chemical Company	Delist	1 1	1 1	12/03/87
07/13/88	Ethylene	Chemical Manufacturers Assoc.	Delist	1 1	1 1	01/27/89
07/13/88	Propylene	Chemical Manufacturers Assoc.	Delist	1 1	1 1	01/27/89
09/09/88	Cyclohexane	Chemical Manufacturers Assoc.	Delist	1 1	1 1	03/15/89
04/14/89	Cadmium Selenide	SCM Chemicals, Inc.	Delist	1 1	1 1	10/19/89
04/14/89	Cadmium Sulfide	SCM Chemicals, Inc.	Delist	1 1	1 1	10/18/89
05/15/89	Decarbromodiphenyl Oxide	Great Lakes Chemical Corp.	Delist	1 1	1 1	11/03/89
06/27/89	Cr/Sb/Ti Buff Rutile	Dry Color Manufacturers Assoc.	Delist	1 1	1 1	01/08/90
08/07/89	Barium Sulfate	Petroleum Equipment Suppliers Assoc	. Delist	1 1	02/12/90	05/23/91
09/05/89	Antimony Compound	Synthetics Product Company	Delist	1 1	1 1	02/13/90
09/07/89	Zinc Borate Hydrate	U.S. Borax Research Corp.	Delist	1 1	1 1	03/20/90
09/19/89	Barium Sulfate	Dry Color Manufacturers Assoc.	Delist	1 1	02/12/90	05/23/91
12/12/89	Sulfuric Acid	ECOLAB Inc.	Delist	1 1	1.1	06/18/90
01/29/90	Zinc Sulfide	Ore and Chemical Corp.	Delist	1 1	1 1	08/01/90
PETITIONS	GRANTED					
08/24/87	Titanium Dioxide	Dupont De Nemours and Co.	Delist	1 1	02/19/88	06/20/88
08/19/87	Titanium Dioxide	SCM Chemicals, Inc. and Didier	Delist	1 1	02/19/88	06/20/88
		Taylor Refractories Corp.				
08/19/87	Titanium Dioxide	Didier Taylor Refractories Corp.	Delist	1 1	02/19/88	06/20/88
10/06/87	Titanium Dioxide	Kemira Oy.	Delist	1 1	02/19/88	06/20/88

TRI Petitions continued on page 22

### **Toxics Release Inventory**

Receipt Date	Chemical Name	Submitter	Action Requested	180-Day Deadline	Proposed Rule FR Pub Date	Final Rule or Denial Pub Date
10/06/87	Cl Acid Blue 9	Ecological and Toxicological Assoc. of the Dyestuffs Manufacturing Industry	Delist	/ /	04/12/88	10/07/88
10/06/87	C1 Acid Blue 9	Ecological and Toxicological Assoc. of the Dyestuffs Manufacturing Industry	Delist	1 1	04/12/88	10/07/88
10/07/87	Melamine Crystal	Melamine Chemical Company	Delist	1 1	06/20/88	03/29/89
04/22/88	Sodium Hydroxide Solution	Chlorine Institute Inc.	Delist	1 1	12/09/88	12/15/89
06/01/88	CI Pigment Blue 15	Dry Color Manufacturers Assoc.	Delist	1 1	05/15/91	05/23/91
06/01/88	CI Pigment Green 7	Dry Color Manufacturers Assoc.	Delist	1 1	05/15/89	05/23/91
06/01/88	CI Pigment Green 36	Dry Color Manufacturers Assoc.	Delist	1 1	05/15/89	05/23/91
08/09/88	Sodium Sulfate	Hoechst Celanese Corp.	Delist	1 1	02/17/89	06/20/89
09/30/88	Alum. Oxide (Non-Fibrous)	Aluminum Association, et al.	Delist	1 1	04/12/89	02/14/90
07/27/89	Terephthalic Acid	Amoco Corp.	Delist	1 1	02/15/90	12/10/90
01/09/90	Seven CFCs and Halons	Natural Resources Defense Council and Governors Mario Cuomo of New York, Madeleine Kunin of Vermont, Thomas Kean of New Jersey	List	/ /	03/21/90	08/03/90
<b>PETITIONS</b>	PENDING					
11/19/90	Phosphoric Acid	The Fertilizer Institute	Delist	05/18/91	1.1	1 1
12/24/90	Sulfuric Acid	American Cyanamid	Modify	06/29/91	11	1 1
05/21/91	Chromium (III) Compounds	California Products Corp.	Delist	11/17/91	11	1 1
09/11/91	Hydrochloric Acid	Vulcan/DuPont/BASF/Monsanto	Modify	03/09/92	1 1	1 1
PROPOSE	RULES					
02/09/87	Butyl Benzyl Phthalate	Monsanto Chemical Co.	Delist	11	07/20/87	1 1
01/23/89	Ammonium Sulfate (SOLN)	Allied Signal, Inc.	Delist	11	03/30/90	1 1
12/24/90	Sulfuric Acid	American Cyanamid	Modify	11	07/26/91	1 1

### TRI Grants Awarded

Ten states have received grants to improve their Toxics Release Inventory (TRI) data management programs. EPA's Office of Toxic Substances (OTS) announced the awards, which totaled \$800,000, in October 1991.

This is the second year the grants have been available to assist in data management, analysis, use, and quality assurance. States, Indian tribes, and U.S. territories were eligible to apply for the funds through the TRI Data Capabilities Grant Program. Twenty states, requesting a total of \$1.7 million in aid, applied for grants.

The overall objective of the grants program is to help states prevent or eliminate risks in communities from toxic chemicals. The criteria used to make selections included (1) potential benefit of the proposed improvements; (2) technical feasibility and likelihood of implementation of the proposed improvements; (3) appropriateness of grant request to the program; (4) need for assistance; (5) likelihood of the proposed program's continuation; and (6) how well the proposed program is integrated with other existing programs or how well it incorporates a multimedia approach. Other factors,

such as geographic distribution of projects and availability of regional resources to manage the grants were also considered.

#### Summaries of the projects that were selected follow:

Alabama received \$75,000 to initiate basic data quality activities to ensure that EPA and the state maintain consistent TRI data; promote reporting requirements to industry; promote availability of TRI data to the public; and incorporate TRI data in compara-

#### **Toxics Release Inventory**

tive risk screening efforts being conducted by the state.

Indiana received \$90,000 to perform data quality assessments of TRI data; incorporate the data in planning for waste minimization efforts; and target specific areas for early reductions of emissions.

Kansas received \$122,000 to develop a manual describing techniques for creating a geographical information data management system that describes identifying techniques, software design, and operational aspects of designing this type of system. The state will develop and test a series of sample comparisons of TRI data using several criteria (geographical units, population areas, environmentally sensitive areas, etc.) and conduct a pilot test to demonstrate system accuracy and compliance elements within a specified area.

Maine received \$87,000 to use TRI data to identify nonreporters; help develop Maine's Toxic Use Reduction Program; establish priorities for Maine's Air Toxics Program; and support development of licensing and permitting procedures.

Mississippi received \$45,500 to start a program to manage TRI data statewide. Reports on statewide releases, using TRI data, will be prepared by the Department of Environmental Quality for use by the Waste Minimization Division, the State Emergency Response Commission, and Local Emergency Planning Committees. Reports will be available to the public. This information is intended to assist in the development of the state's emergency planning measures

and use of TRI information for targeting industrial release reductions.

New York received \$125,000 to conduct a program to improve TRI data quality and use; produce health risk rankings; determine any geographic "hot spots" of environmental concern; and develop a linkage between TRI data and the state's permit compliance data for two communitywide studies.

**Texas** received \$75,000 to develop source reduction and pollution prevention opportunities by using TRI data to identify facilities, chemicals, and geographic areas as targets for pollution prevention activities.

Virginia received \$19,000 to integrate three years of TRI data into one database; integrate Emergency Planning and Community Right-to-Know Act (EPCRA) section 313 data with information from sections 311 and 312 of EPCRA and other state-collected data; and use TRI data to target industrial facilities for reductions of toxic releases.

Washington received \$52,000 to ensure that industrial facilities have met TRI reporting requirements and that release estimates submitted are accurate. This will confirm that TRI data accurately represent chemical emissions in the state and will increase the usefulness of TRI data to the state's environmental programs.

Wisconsin received \$109,500 to integrate five state toxics databases; carry out pollution prevention activities; and screen health risks for environmental "hot spots."

Applications for grants will be accepted in 1992. Information about the TRI Data Capabilities Grant Program is available from Tim Crawford, Economics and Technology Division (TS-779), U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460; telephone, (202) 260-1715.

## Analysis of TRI Data Is Available

The report *Toxics in the Community* provides an analysis of data collected for the 1989 Toxics Release Inventory (TRI), including comparisons with data from previous years.

Toxics in the Community includes detailed information about the scope and requirements of section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), which established the inventory. It also provides examples of different ways the data are being used, such as in state pollution prevention efforts.

A limited number of copies of the report are available from the EPCRA Information Hotline. The hotline operates from 8:30 a.m. to 7:30 p.m. Eastern time, Monday through Friday. It can be reached by calling (800) 535-0202 or (703) 920-9877.

Toxics in the Community can also be ordered from the Government Printing Office, c/o Superintendent of Documents, Washington, D.C. 20402; telephone, (202) 783-3238. Its order number is 055-000-00387-4.

## **TSCA Section 8(e) Notices**

Under section 8(e) of the Toxic Substances Control Act (TSCA), anyone who obtains information that indicates a chemical might pose a substantial risk to human health or the environment must report that information to EPA within 15 working days of obtaining it.

The Office of Toxic Substances (OTS), which responds to TSCA section 8(e) submissions, has changed its format for doing so. As of October 1, 1990, OTS began issuing "submission summaries," rather than "status reports, " following initial section 8(e) notices. Submission summaries contain a detailed accounting of the toxicological and other data contained within the 8(e) submission, but no information regarding EPA's evaluation or disposition of the case.

Below is a list of TSCA section 8(e) notices received between May 1, 1991, and July 31, 1991. In the list, "S" indicates that a sanitized, or nonconfidential, version of the document is available, and "P" indicates that a portion of the submission is protected under the Privacy Act.

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0591-1230	Propylamine, Methoxy-	5332-73-0	Allergenicity (Animal)
0591-1231 S	Diphenyl Ether, Substituted	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal) Allergenicity (Animal)
0591-1232 S	Heterocycle	Confidential	Neurotoxicity (Animal) Chronic Toxicity (Animal)
0491-1233 S	Phenoxy Propionate	Confidential	Reproductive Toxicity/Terato. (Animal)
0591-1234	Isopropanol Ethane, 1,1,1-Trichloro- Freon 113	67-63-0 71-55-6 76-13-1	Epidemiology/Clinical Human Exposure (Monitoring) Oncogenicity (Human)
0591-1235	Quinoline, 1,2-Dihydro-2,2,4-Trimethyl-, Homopolymer	26780-96-1	Oncogenicity (Animal) Chronic Toxicity (Animal)
0591-1236	Vinyl Acrylate	2177-18-6	Acute Toxicity (Animal)
0591-1237	Diatomaceous Earth Silica, Amorphous	None Unknown	Oncogenicity (Human) Epidemiology/Clinical Chronic Toxicity (Human)
0591-1238 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0591-1239 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0591-1240 S	Heterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)



Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0591-1241 S	Heterocycle	Confidential	Neurotoxicity (Animal) Subacute Toxicity (Animal)
0591-1242 S	Cyclopentanol, Halo-Substituted	Confidential	Reproductive Toxicity/Terato. (Animal)
0591-1243	Stannane, Dibutyldichloro-	683-18-1	Clastogenicity (Animal)
0591-1244	Carbonochloridic Acid, 1,2,2,6,6,- Pentamethyl-4-Piperdinyl Ester, Hydrochloride	Unknown	Neurotoxicity (Animal) Acute Toxicity (Animal)
0591-1245 S	7-Oxabicyclo[4.1.0]Heptane-3- Carboxylic Acid, 7-Oxabicyclo[4.1.0] Hept-3-Ylmethyl Ester	2386-87-0	Allergenicity (Human)
	Naphthalenesulfonic Acid, Dinonyl-, Calcium Salt	57855-77-3	
0591-1246	Fuel, Diesel (Exhaust) Carbon Black Titanium Oxide, (Tl02)	None 1333-86-4 13463-67-7	Chronic Toxicity (Animal) Metabolism/Pharmacokinetics (Animal) Epidemiology/Clinical
0591-1247 S	Phenois, Sulfur Bridged Substituted	Confidential	Reproductive Toxicity/Terato. (Animal) Subacute Toxicity (Animal)
0591-1248	1,2-Benzenedicarboxylic Acid, Dibutyl Ester	84-74-2	Ecotoxicity/Aquatic Toxicity
	1,2-Benzenedicarboxylic Acid, Dimethyl Ester	131-11-3	
0591-1249	Ethane, 1,1 1-Trichloro-	71-55-6	Reproductive Toxicity/Terato. (Animal)
0591-1250 S	Diamine, Halogenated Aromatic Ether	Confidential	Subacute Toxicity (Animal)
0591-1251	Styrene	100-42-5	Neurotoxicity (Animal) Subchronic Toxicity (Animal) Ototoxicity Subacute Toxicity (Animal)
0591-1252 S	Nickel Nickel Carbonyl, (NI(CO)4), (T-4)-	7440-02-0 13463-39-3	Human Exposure (Monitoring)
0591-1253 S	Alkane, Halogenated	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0591-1254	Methylene Chloride Cadmium Chromium, Hexavalent Ion	75-09-2 7440-43-9 18540-29-9	Oncogenicity (Human) Env. Occurrence/Release/Fate Human Exposure (Monitoring)
0591-1255	T-Octylamine	107-45-9	Acute Toxicity (Animal)
0591-1256	Phosphonic Acid, Ethyl-, Diethyl Ester Phosphorous Acid, Triphenyl Ester Phosphoric Acid, Triphenyl Ester 2,6,7-Trioxa-1-Phosphabicyclo[2.2.2] Octane, 4-Ethyl-	78-38-6 101-02-0 115-86-6 824-11-3	Neurotoxicity (Animal) Acute Toxicity (Animal)
	2,6,7-Trioxa-1-Phosphabicyclo-[2.2.2] Octane, 4-Ethyl, 1-Oxide	1005-93-2	
	2-Propanol, 1-Chloro-, Phosphate (3:1) 2,4,8,10-Tetraoxa-3,9-Diphosphaspiro [5.5]Undecane, 3,9-Bis[2,4-Bis(1,1- Dimethylethyl)Phenoxy]-	13674-84-5 26741-53-7	



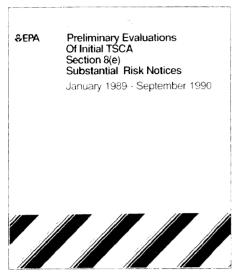
Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0591-1256 (cont'd)	Phosphonic Acid, Methyl-, (5-Ethyl-2- Methyl-1,3,2-Dioxaphosphorinan-5-yl) Methyl Methyl Ester, P-Oxide	41203-81-0	
	Phosphonic Acid, Methyl-, Bis[(5-Ethyl- 2-Methyl-1,3,2-Dioxaphosphorinan- 5-yl)Methyl] Ester, P,P'-Dioxide	42595-45-9	
	Phenol, Isopropylated, Phosphate (3:1)	68937-41-7	
0691-1257	1,3-Butanediamine, N,N,N',N'- Tetramethyl-	97-84-7	Reproductive Toxicity/Terato. (Animal) Subacute Toxicity (Animal) Acute Toxicity (Animal) Immunotoxicity (Animal)
0691-1258 S	Hydrazide, N-Substituted Alkanoic Acid	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0691-1259 S	Silicone Mixture	Confidential	Acute Toxicity (Animal) Subchronic Toxicity (Animal) Subacute Toxicity (Animal) Human Exposure (Monitoring)
0691-1260 S	RIM-DCP Catalyst B	Confidential	Allergenicity (Animal)
0691-1261 S	Bicycloalkane	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0691-1262	Cycloaliphatic Epoxide ERL-4221	2386-87-0	Allergenicity (Animal)
0691-1263	Acetate, 2-Methyl Butyl Acetate, N-Amyl	624-41-9 628-63-7	Reproductive Toxicity/Terato. (Human)
0691-1264	Chlorinated Dibenzodioxins	Unknown	Human Exposure (Monitoring)
0691-1265 S	Acrylate, Substituted	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0691-1266 S	Hydrazone	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0691-1267 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0691-1268	Ethane, 2,2-Dichloro-1,1,1-Trifluoro- HCFC-123	306-83-2 306-83-2	Oncogenicity (Animal) Chronic Toxicity (Animal)
0691-1269	Phenol, 4,4',4"-Ethylidynetris-	27955-94-8	Ecotoxicity/Aquatic Toxicity
0691-1270	Ethoxyamine (Production Process) Hydroxylamine, O-Ethyl- (Production Process)	None None	Acute Toxicity (Human) Human Exposure (Monitoring)
	Ethoxyamine, 2-Propane Ethoxyamine	Unknown 624-86-2	Epidemiology/Clinical
0691-1271	Miscellaneous Chemicals Naphthalene, 2-Amino Phenol, 4-(2-Naphthalenylamino)-	None 91-59-8 93-45-8	Human Exposure (Product Contamination)
0691-1272 S	Phenol, Substituted	Confidential	Acute Toxicity (Animal) Allergenicity (Animal)
0691-1273 S	Pyrazole, 3-Amino-5-Methyl-	31230-17-8	Mutagenicity (In Vitro)
0691-1274 S	Heterocycle	Confidential	Subchronic Toxicity (Animal)

## TSCA Section 8(e) Notices

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0791-1275 S	Hydrazide, N-Aminothioxo Substituted Alkanoic Acid	Unknown	Neurotoxicity (Animal) Acute Toxicity (Animal)
0791-1276 S	Ether, Diaryl, (II)	Confidential	Reproductive Toxicity/Terato. (Animal)
0791-1277	Benzeneacetic Acid, 4-Methoxy-	104-01-8	Acute Toxicity (Animal)
0791-1278	Chloranit	118-75-2	Acute Toxicity (Animal)
0791-1279 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0791-1280	Asphalt Asphalt Flux Residues, (Petroleum), Vacuum Residues, (Petroleum), Thermal Cracked Extracts, (Petroleum), Heavy Paraffinic Distillate Solvent Extracts, (Petroleum), Heavy Naphthenic Distillate Solvent Distillates, (Petroleum), Petroleum Residues Vacuum	None Unknown 64741-56-6 64741-80-6 64742-04-7 64742-11-6	Mutagenicity (In Vitro)
0791-1281	T-Octylamine	107-45-9	Neurotoxicity (Animal) Acute Toxicity (Animal)
0791-1282 S	Anilate	Confidential	Neurotoxicity (Animal) Subchronic Toxicity (Animal)
0791-1283	Succinic Anhydride Isethionate, C14- Alkenyl-, Sodium Salt	Unknown	Subacute Toxicity (Animal)
0791-1284 S	Heterocycle	Confidential	Reproductive Toxicity/Terato. (Animal) Neurotoxicity (Animal)
0791-1285 S	Heterocycle	Confidential	Neurotoxicity (Animal) Chronic Toxicity (Animal)
0791-1286	Cellulose, Insulation Man-Made Vitreous Fibers Refractory Ceramic Fiber Thermolite, Cellulose Insulation	None None None None	Subacute Toxicity (Animal)
0791-1287 S	3-Pyrazolidinone, 4,4-Dimethyl-1- Phenyl-	2654-58-2	Acute Toxicity (Animal)
791-1288	Benzene, Reaction Products With Chlorine and Sulfur Chloride (S2CL2), Chlorides	109037-76-5	Acute Toxicity (Animal)
0791-1289 S	Pyrimidinamine	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
791-1290	Methane, Bromochlorodifluoro-	353-59-3	Acute Toxicity (Human) Human Exposure (Accidental) Epidemiology/Clinical Metabolism/Pharmacokinetics (Animal)
0791-1291	Carboxylic Acid, 1,4,5,8-Naphthalene Tetra-	52671-72-4	Allergenicity (Animal)

Log No. 8EHQ-	Chemical Name	CAS No.	Type of Information
0791-1292	Silicone Emulsion Y-12386 Siloxane, Polydimethyl, Emulsion	Confidential Confidential	Acute Toxicity (Animal)
0791-1293	X-CIDE 370 Industrial Biocide Quaternary Ammonium Compounds, (Oxydi-2,1-Ethanediyl)Bis[Coco Alkyldimethyl, Dichlorides	Unknown 68607-28-3	Acute Toxicity (Animal)
0791-1294	Alcohol Ethoxy Sulfates Alkyl Sulfates	None None	Ecotoxicity/Aquatic Toxicity
0791-1295 S	Bicycloalkane	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0791-1296	Oxiranemethanaminium, N,N,N- Trimethyl-, Chloride	3033-77-0	Reproductive Toxicity/Terato. (Animal) Subacute Toxicity (Animal)
0791-1297	Benzene, 2-Isocyanato-1,3-Bis (1-Methylethyl)-	28178-42-9	Neurotoxicity (Animal) Acute Toxicity (Animal)
0791-1298	Thiadiazole, 2,5-Dimercapto-1,3,4- (Reaction Product)	Unknown	Subacute Toxicity (Animal)
0791-1299	Dibenzofurans Dioxins, Brominated Dioxins, Dibenzo-Para-	None None None	Epidemiology/Clinical Human Exposure (Monitoring)
0791-1300	Antiblaze 19 (Production Process) Misc. Chemicals	None None	Human Exposure (Accidental) Env. Occurrence/Release/Fate Human Exposure (Monitoring) Emergency Incident of Env. Contamination
0791-1301 S	Aryl Phosphite, Alkyl Disubstituted	Unknown	Neurotoxicity (Animal)
0791-1302 S	Sulfanylurea, Aryl	Confidential	Subacute Toxicity (Animal) Subchronic Toxicity (Animal)
0791-1303 S	Acetamide, Multisubstituted	Confidential	Reproductive Toxicity/Terato. (Animal) Subchronic Toxicity (Animal)
0791-1304	Acetaldehyde, Trichloro- Acetic Acid, Trichloro- Trichloroethylene Ethanol, 2,2,2-Trichloro-	75-87-6 76-03-9 79-01-6 115-20-8	Acute Toxicity (Animal) Metabolism/Pharmacokinetics (Human)
0791-1305	Styrene	100-42-5	Subacute Toxicity (Animal)
0791-1306	2-Propenoic Acid, 1,2-Ethanediylbis (Oxy-2,1-Ethanediyl) Ester	1680-21-3	Subacute Toxicity (Animal)
0791-1307 S	Methane, Bromonitro-	563-70-2	Acute Toxicity (Animal)
0791-1308 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Subacute Toxicity (Animal)
0791-1309 S	Benzoheterocycle	Confidential	Neurotoxicity (Animal) Acute Toxicity (Animal)
0791-1310	Lead, Tetraethyl	78-00-2	Oncogenicity (Human) Epidemiology/Clinical

## New Volume of TSCA Section 8(e) Status Reports Is Available



EPA recently published a new bound volume of the agency's status reports for submissions received from industry under section 8(e) of the Toxic Substances Control Act (TSCA). The status reports contain preliminary evaluations of the submissions.

Section 8(e) requires that any manufacturer, processor, or distributor who obtains information that reasonably supports a conclusion that a chemical substance presents a substantial risk to human health or to the environ-

ment report that information to EPA within 15 days of obtaining it.

The volume includes status reports for section 8(e) submissions 8EHQ-0189-0779 through 8EHQ-0990-1084. A limited number of copies of the publication are available at no charge from the TSCA Assistance Information Service (TSCA hotline). See page 32 for information on contacting the TSCA hotline.

Copies can also be purchased from the National Technical Information Service (NTIS). Also available from NTIS are the six previously published volumes of TSCA section 8(e) status reports.

NTIS can be contacted by writing to NTIS, 5285 Port Royal Road, Springfield, Virginia 22161, or by calling (703) 487-4650 or (800) 553-NTIS.

NTIS Publication Number	Submission Numbers in Document
PB# 91-233643	8EHQ-0189-0779 to 8EHQ-0990-1084
PB# 89-182687	8EHQ-0187-0649 to 8EHQ-1288-0778
PB# 87-176004	8EHQ-0185-0542 to 8EHQ-1286-0648
PB# 87-129409	8EHQ-0183-0468 to 8EHQ-1284-0541
PB# 83-187815	8EHQ-0280-0331 to 8EHQ-1282-0467
PB# 81-145732	8EHQ-0779-0292 to 8EHQ-0180-0330
PB# 80-221609	8EHQ-0777-0001 to 8EHQ-0679-0291

## Availability of 8(e) Notices and FYI Submissions

Section 8(e) notices and FYI submissions are available to the public in a number of ways.

- They can be reviewed and photocopied at EPA headquarters in the OTS Public Reading Room, NE-G004, 401 M Street, S.W., Washington, D.C. 20460; phone, (202) 260-7099. The room is open from 8 a.m. to noon and 1 p.m. to 4 p.m., Monday through Friday.
- A copy of a full section 8(e) or FYI submission can be obtained by writing to EPA, Freedom of Information (A101), Washington, D.C. 20460. Duplication of the first 166 pages of any document is free. At the 167th page, there is a \$25 fee and an additional \$0.15 charge for each page. For example, duplication of a 167-page document will cost \$25.15.
- Single copies of section 8(e) submission summaries are available from the TSCA Assistance Information Service (TSCA hotline). See page 32 for information on how to contact the TSCA hotline.

#### **FYI Submissions**

For Your Information (FYI) submissions are voluntary submissions that cover a wide variety of information and may include data on chemical toxicity and exposure, epidemiology, monitoring, and environmental fate. FYIs are submitted by chemical manufacturers, chemical processors, federal, state, or local agencies, foreign governments, academic institutions, public interest and environmental groups, and the general public.

The FYI classification system was established by the Office of Toxic Substances to distinguish such submissions from notices submitted formally to EPA under section 8(e) of TSCA.

Listed below are the FYI submissions received between June 8, 1991, and July 19, 1991. In the list, "S" indicates that a sanitized, or nonconfidential, version of the document is available, and "P" indicates that a portion of the submission is protected under the Privacy Act.

FYI No.	Chemical Name	CAS No.	Type of information
0691-0809	Hydrocyanic Acid	74-90-8	Acute Toxicity (Human) Human Exposure (Accidental)
0691-0810	2-Propenoic Acid, Butyl Ester 2-Propenoic Acid, Butyl Ester, Polymer with Ethene	141-32-2 25750-84-9	Human Exposure (Product Contamination)
0691-0811	Molybdenum Oxide, (M003) Sodium Molybdate Ammonium Molybdate	1313-27-5 7631-95-0 27546-07-2	Acute Toxicity (Animal) Allergenicity (Animal)
0791-0812	Methanol	67-56-1	Clastogenicity (Animal)
0791-0813	Hexane	110-54-3	Metabolism/Pharmacokinetics (Animal)
0791-0814	Phenot, Polymer with Formaldehyde	9003-35-4	Acute Toxicity (Animal)
0791-0815	Ethanol Propane, 1,2,3-Trichloro-	64-17-5 96-18-4	Miscellaneous Toxicity Studies (Animal) Ecotoxicity/Aquatic Toxicity
0791-0816	Carbamodithioic Acid, Dimethyl-, Sodium Salt	128-04-1	Subchronic Toxicity (Animal)
0791-0817	Gasoline, Unleaded	None	Metabolism/Pharmacokinetics (Human)

#### New Chemicals Program continued from page 7

through October 1, 1991. Just three years ago, the agency was able to issue only 10 to 12 new-chemical SNURs a year due to a time-consuming rulemaking process. In October 1989, EPA changed the process for issuing SNURs that extend section 5(e) orders. This change has allowed the agency, as a matter of course, to quickly apply the same regulatory standards in a section 5(e) order to all manufacturers and importers of the new chemical. More than 300 newchemical SNURs have been issued since the new SNUR regulations were promulgated.

#### Control of existing chemicals

EPA is able to protect human health and the environment from harmful exposure to existing chemicals through the New Chemicals Program. About 9,000 chemical substances that are on the TSCA Inventory entered commerce after completing the New Chemicals Program review process. EPA has regulated an estimated 1,400 of these 9,000 substances through consent orders, SNURs, and production and test-marketing restrictions placed on low-risk substances (PMN exemption categories).

Establishing controls on new chemicals before they enter the marketplace has proved more effective than agency efforts to regulate existing chemicals that were already on the market when TSCA took effect. TSCA allows those substances to be regulated only through rulemaking, which is most often conducted on a chemical-by-chemical basis. The promulgation of rules requires greater resources to gather and analyze data on the part of both industry and EPA.

#### PMN exemptions

Another way the New Chemicals
Program regulates chemicals that
enter the marketplace is through
PMN exemption categories. EPA
has determined that certain new substances are of relatively low risk.
These substances are subjected to a
shorter review if the submitter agrees
to adhere to the agency's strictly
defined conditions under which the
chemicals can be manufactured, used
in production, or imported.

EPA is planning to expand the PMN exemption criteria (1) to allow the agency to focus resources on chemicals that pose the greatest risks and (2) to encourage the manufacture of lower-risk substances as substitutes for substances of known concerns. OTS hopes the expanded criteria will encourage companies to choose to manufacture chemicals that are eligible for the shorter review.

#### influencing the chemical marketplace

Over the past few years, efforts by the New Chemicals Program to inform the chemical community about the criteria used to assess chemicals have encouraged development of safer chemicals.

For example, heightened awareness of the program's concerns about certain categories of substances has prompted some chemical companies to screen new chemicals in-house before approaching the agency. These inhouse assessments may result in a decision against developing a chemical commercially or a search for a less toxic substitute.

Also, an increasing number of companies are contacting EPA prior to submitting a PMN to discuss what test data the agency needs to assess the chemical's risks. When test data are included with the PMN submission, EPA can more accurately assess risks associated with the chemicals. The availability of data allows the agency to limit its use of structure-activity relationships and worst-case scenarios, which in turn may make regulatory action unnecessary. In the past year, almost half of the PMN submitters had technical, procedural, or regulatory discussions with the New Chemicals Program prior to submitting a chemical for review.

#### For more information

For more information, contact the TSCA Assistance Information Service (TSCA hotline). See page 32 for information on how to reach the TSCA hotline.

## Requirements under Section 5(e) Consent Orders

Consent orders negotiated by chemical manufacturers and EPA can require any combination of the following:

- protective clothing or respiratory equipment for workers exposed to the chemical;
- worker training programs;
- restrictions on distributing the chemical:
- hazard communications programs for the chemical's purchasers;
- limitations on how much of the chemical can be produced;
- limitations on disposal of the chemical;
- prohibitions or limitations on releases of the chemical to water;
- recordkeeping; and
- a testing.

## Send All Correspondence to

Environmental Assistance Division (TS-799)
Office of Toxic Substances
U.S. EPA
401 M Street, S.W.
Washington, D.C. 20460

Editor: Jane Gurin

## Would You Like to Receive the Chemicals-in-Progress Bulletin?

The Chemicals-in-Progress Bulletin is published by EPA's Office of Toxic Substances. If you are not currently receiving the bulletin and would like to become a subscriber, or if you would like to stop receiving the bulletin, please fill out and send in the form below. Or, tape a mailing label onto it.

☐ Please add my name to the mailing list for the Chemicals-in-Progress Bulletin.						
☐ I no longer want to receive the Chemicals-in-Progress Bulletin. ☐ I'd like a copy of the following OTS publication(s):						
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			· ·			
Name	<u> </u>	Title				
Company or Organiza	ation Name		Type of Business			
Street Address						
City	State	<u> </u>	Zip Code			

# Pollution Prevention Conference for the Pulp and Paper Industry Set for March

EPA is sponsoring an international conference to share information and technology about preventing pollution in the pulp and paper industry. Manufacturers, equipment suppliers, government managers, and the public are invited to attend. The conference will be held in Washington, D.C., March 11-13, 1992. For more information, call (800) 726-4853 or (202) 429-0776.

## Proceedings of Paint-Stripping Conference Are Available

Manufacturers, government officials, and people who work with paint-stripping chemicals and processes met last February to discuss alternative paint-stripping technologies and the regulatory process. The conference, sponsored by the Office of Toxic Substances, attracted participants from around the world.

Proceedings from the conference are now available from the National Technical Information Service (NTIS). The order number is PB91-224303.

NTIS 5285 Port Royal Road Springfield, Virginia 22161 Phone: (703) 487-4650 or (800) 553-NTIS.

## **TSCA Hotline: Question & Answer**

Q: My company needs to submit several Preliminary Assessment Information Rule (PAIR) forms in response to a recent TSCA section 8(a) PAIR rule. I found a copy of the form we need in 40 CFR 712. However, the form says that Office of Management and Budget (OMB) approval of this form expired on March 31, 1984. Can I still use this form or is there a new one? Can I photocopy the form in the CFR? A post office box in Rockville, Maryland, is listed as a return address on the form; is the post office box still in use?

A: OMB has approved the continued use of the PAIR form shown in 40 CFR 712. However, the form shown in the CFR is for informational purposes only; photocopies will not be accepted. The Office of Toxic Substances' Document Control Office is

the only source of PAIR forms. Each PAIR form is individually numbered and tracked; be sure to order a separate form for each manufacturing site. The Rockville address shown on the PAIR form is no longer in use. The completed PAIR form should be returned to the Document Control Office.

To obtain PAIR forms and submit completed forms, contact

Document Control Office (TS-790)
Office of Toxic Substances
U.S. EPA
401 M Street, S.W.
Washington, D.C. 20460
(202) 260-1532

For all other information, contact the TSCA Assistance Information Service (TSCA hotline) at right.

## TSCA Hotline Call (202) 554-1404

The TSCA Assistance Information Service (TSCA hotline) operates Monday through Friday, from 8:30 a.m. to 5 p.m. Eastern time. To speak to an information specialist, call (202) 554-1404. FAX requests for documents are received every day, at all times, on (202) 554-5603. Documents can also be requested by deaf persons who have TDD equipment by dialing (202) 554-0551.

To request assistance by mail, write to the Environmental Assistance Division at the address provided on page 31.

#### **ENVIRONMENTAL ASSISTANCE DIVISION**

Office of Toxic Substances (TS-799) U.S. EPA 401 M Street, S.W. Washington, D.C. 20460

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