

EPA ICR No. 1188.11; OMB Control No. 2070-0038

ATTACHMENT 5

Selected SNUR Case History Abstracts

HEXACHLORONORBORNADIENE (CAS # 2432-99-7)
also known as HEX-BCH.

6 TOXICITY

- Extremely persistent compound with a great tendency to bioaccumulate.
 - Slow biodegradation.
- Very toxic to fish.
Possible analogue to known carcinogens.

II. REFERRING OFFICE'S CONCERNS/NEEDS

- Monitor: its manufacture, importation, and processing; intended end uses, and potential worker exposure and environmental releases.
- Once production levels reach a certain point, EPA will reconsider its decision not to test HEX-BCH.

III. USES

A. Past and Ongoing

Commercial batch manufacture and processing.
Intermediate in the production of isodrin which is an intermediate in the production of endrin (both pesticides).

B. Small Business

Capable of production by a small firm.

IV. REGULATORY BACKGROUND

- Listed on the Preliminary Assessment Information Rule. (One-time reporting only).
- Listed on the section 8(d) model health and safety data reporting rule (40 CFR Part 716).
- Local limit on its discharge in a public treatment system. Limit based on plant's treatment capacity and not on human health or environmental risk.

V. RECOMMENDATION/RATIONALE: Section 8(a) rule for ongoing uses and significant new use rule for non-ongoing uses.

Well documented high toxicity concern.

Small businesses potential.

Satisfies referring office's needs.

No federal regulation exists to provide a governmental entity with an opportunity to evaluate potential human and environmental exposures to HEX-BCH from its manufacture, importation, processing, and intended end use; and to protect human beings and the environment from potentially adverse exposures before they occur.

METHYL N-BUTYL KETONE (CAS # 591-78-6)

also known as MBK.

7 TOXICITY

- Causes central and peripheral neuropathy in humans. Nerve damage is irreversible at concentrations as low as 50 ppm.
 - Absorbed readily through the skin.
- Eye and skin irritant.
Limited evidence suggests testicular atrophy.

II. REFERRING OFFICE'S CONCERNS/NEEDS

- Monitor: its resumption of commercial manufacture, importation, and processing; intended end uses, and potential worker and consumer exposure.

III. USES

A. Past

Commercial manufacture, importation and processing.
Solvent in lacquers, sealers, varnish removers, oils, fats, and waxes. (i.e., consumer products).

B. Ongoing

Importation for toxicological research and development.

C. Small Business

Capable of production by a small firm.

IV. REGULATORY BACKGROUND

- Occupational Safety and Health Administration standard (8 hour Time Weighted Average (TWA) 100 ppm).
- American Conference of Governmental Industrial Hygienists TWA 5 ppm. No binding effect.
- National Institute of Occupational Safety and Health TWA 5 ppm. No binding effect.

V. RECOMMENDATION/RATIONALE: Significant new use rule.

Well documented high toxicity concern.
Small businesses potential.
Satisfies referring office's needs.

No federal regulation exists to provide a governmental entity with an opportunity to evaluate potential human and environmental exposures to MBK from its manufacture, importation, processing, and intended end use; and to protect human beings and the environment from potentially adverse exposures before they occur.

URETHANE (CAS # 51-79-6)

Urethane is a name commonly but improperly applied to high molecular weight polyurethanes used as foams, elastomers, and coatings. These products are not made from the urethane, and do not generate urethane upon decomposition.

I. TOXICITY

- Urethane is well established as a carcinogen. Malignant tumors have occurred in many species of animals following the administration of urethane by the oral, inhalation, topical, subcutaneous, and intraperitoneal routes. Urethane is also a transplacental carcinogen that readily traverses the placenta and affects the fetus.
- Toxic fumes when heated; liver toxin; bone marrow depressant.

II. REFERRING OFFICE'S CONCERNS/NEEDS

- Monitor: its resumption of manufacture, importation, and processing; intended end uses, and potential worker and consumer exposure.

III. USES

A. Past

Commercial manufacture, importation and processing.

Intermediate in the production of N-hydroxymethyl derivatives, which are useful as cross-linking agents for imparting wash-and-wear properties to fabrics.

Human medicine: sclerosing agent for varicose veins and hemorrhoids, anti-neoplastic agent, hypnotic, treatment of chronic leukemia, and multiple myeloma.

Pharmaceutical intermediate.

B. Ongoing

Toxicological research.

C. Small Business

Capable of production by a small firm.

IV. REGULATORY BACKGROUND

Banned by the Food and Drug Administration as an active and inactive ingredient in drugs. FDA also prohibited the use of a food preservative that produces urethane when it is used in acidic beverages.

Designated by EPA as a Toxic Hazardous Waste #238.

- Listed as a Hazardous material under the Hazardous Materials Transportation Act.

V. RECOMMENDATION/RATIONALE: Significant new use rule.

Well documented high toxicity concern.

Small businesses potential.

Satisfies referring office's needs.

No federal regulation exists to provide a governmental entity with an opportunity to evaluate potential human and environmental exposures from urethane's manufacture, importation, processing, and intended end use; and to protect human beings and the environment from potentially adverse exposures before they occur.

The consequences of not collecting this information is to allow, without EPA review, human and environmental exposures to toxic chemical substances.

PENTABROMOETHYLBENZENE (CAS # 85-22-3)

also known as PEB.

I. TOXICITY

- Carcinogenicity observed in other structurally related compounds having a polyhalogenated aromatic moiety.
 - Persistent compound with a great tendency to bioaccumulate.
- Slow biodegradation.

II. REFERRING OFFICE'S CONCERNS/NEEDS

- Monitor: its resumption of commercial manufacture, importation, and processing; intended end uses, and potential worker exposure and environmental release.
- If production is to be reinstated, EPA will reconsider its decision not to test HEX-BCH.

III. USES

A. Past and Ongoing

Has been used in the past as an additive-type flame retardant.
No known ongoing uses.

B. Small Business

Capable of production by a small firm.

V. REGULATORY BACKGROUND

The Interagency Testing Committee designed PEB for priority consideration in its 15th report.

Listed on the section 8(d) model health and safety data reporting rule (40 CFR Part 716).

- Listed on the Preliminary Assessment Information Rule. (40 CFR Part 712).
- Proposed, pursuant to section 4(a)(1)(A) findings, that chemical fate and environmental effects testing be performed.
- Proposed Test Rule withdrawn due to termination of all known manufacture and processing operations.

V. RECOMMENDATION/RATIONALE: Significant new use rule.

Structurally analogous to substances of carcinogenic concern.

Small businesses potential.

Satisfies referring office's needs.

No federal regulation exists to provide a governmental entity with an opportunity to evaluate potential human and environmental exposures to PEB from its manufacture, importation, processing, and intended end use; and to protect human beings and the environment from potentially adverse exposures before they occur.