



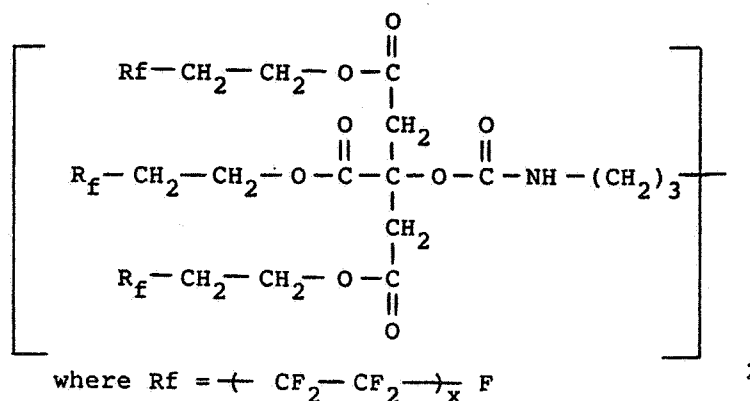
HASKELL LABORATORY

Common Name: Telomer B Citrate Urethane (TBCU)

Chemical Name: Poly(difluoromethylene), alpha-fluoro-omega-(2-hydroxyethyl)-, ester with 2,15-bis(carboxymethyl)-4,13-dioxo-3,14-dioxo-5,12-diazahexadecane-1,2,15,16-tetracarboxylic acid

CAS Registry No.: 65530-58-7

Chemical Structure:



Physical Properties:

Form:	Brown solid
Molecular Weight:	Approximately 3200 (typical grade)
Boiling Point:	----
Melting Point:	----
Density:	1.5 g/mL

Recommended AEL

0.1 mg/m³ (8- and 12-hour TWA), respirable dust

General Toxicity

TBCU has very low acute oral toxicity with an ALD in the rat of 25 grams/kg (DuPont, 1976a). Dispersions of TBCU or the solid material produced no to mild irritation on the skin of rabbits and guinea pigs (DuPont, 1976b). Dispersions of TBCU appear to be a weak skin sensitizer in the guinea pig (DuPont, 1976b). Instillation of the solid material or an aqueous dispersion into the rabbit eye produced reversible irritation to the cornea and conjunctiva (DuPont, 1980a, 1980b). By the acute inhalation route, TBCU is extremely toxic with a 4-hour ALC in the rat of 42 mg/m³ (DuPont, 1983).

In a two-week subchronic inhalation study a NOEL of 2.5 mg/m³ was determined in the rat. At 10 mg/m³ three of 25 rats were killed (DuPont, 1984).

No information was available on the carcinogenic or embryotoxic potential. TBCU was not mutagenic in the Ames test (DuPont, 1977).

Basis for AEL

Because of the steep dose relationship determined in the subchronic study, a larger safety factor than usual was applied to the 2.5 mg/m³ NOEL. Additionally, because the inhalation toxicity of TBCU is directly dependent on the particle size, the proposed AEL will be for respirable particles. Based on the above data and these two provisions, a limit of 0.1 mg/m³ (8- and 12-hour TWA), respirable dust, was proposed.

TBCU was updated in 1990, 1995, and again in 2000. No additional information was found.

References

DuPont Co., Haskell Laboratory Data:

- 1976a. MR-2351-7, HL-960-76.
- 1976b. MR-2351-7r HL-1003-76.
- 1977. MR-2858-1, HL-961-77.
- 1980a. MR-3888-1, HL-571-80.
- 1980b. MR-3888-1, HL-572-80.
- 1983. MR-4932-1, HL-423-83.
- 1984. MR-4932-1, HL-143-84.

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Updated by:

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