



### Skin Penetration

The R.F. LD<sub>50</sub> for male albino rabbits subjected to contact with the undiluted compound applied, under a "Vinylite" dam, to the clipped trunk for 24 hours is 0.57 (0.36 to 0.90) ml./kg. Death ensued within 4 hours after the application of a dosage of 2.0 ml./kg. Severe skin damage was caused by the application as erythema, hemorrhage and necrosis were evident at autopsy. The livers and kidneys were pale and mottled and the other organs were often hemorrhagic or severely congested. Bloody urine was noted in one rabbit and in another the distended bladder indicated retention of urine. By this route diethylamine has a R.F. LD<sub>50</sub> of 0.82 ml./kg. and isopropylamine 0.55 ml./kg.

### Inhalation

Rats exposed to 2000 ppm. died in the exposure in from 2 to 4 hours. Symptoms noted included tremors, poor coordination and difficult breathing. The lungs, livers, and kidneys were congested when viewed at autopsy. A concentration of 1000 ppm. killed 1 of 6 and 500 ppm. 0 of 6 in 4 hour exposures. Inhalation of vapors of triethylamine constitutes a moderate hazard.

### Irritation

Triethylamine is not a primary irritant as evidenced by the results in the vesicant test wherein 0.01 ml. amounts are applied to the skin of the rabbit belly. Two rabbits showed no reaction, 2 had minimal capillary injection and one moderate erythema. This places triethylamine in grade 2 of the 10 grade rating system which also harbors such bland materials as the "Ucon" fluids of the LB series.

An excess of a 5% dilution in propylene glycol severely injures the cornea of the rabbit eye while 1% dilutions are harmless to the eye. The compound falls in grade 9 of the 10 grade eye burn rating system, or comparable in activity to monoethanolamine.

*Charles P. Carpenter*

Charles P. Carpenter

---

SENIOR INDUSTRIAL FELLOW

Typed: December 15, 1949 - arc

Table 13-32

TRIETHYLAMINE

Single Doses to Male Albino Rats by Mouth

Fed by Stomach Tube as a Dispersion in 1% "Tg" 7.1 ml. = 0.20 gm.

Rat No.	Date Dosed	Grams Wt.	Weight Change in 14 Days	Dosage; Grams per Kilo	Dose in Grams	Dose in ml. of Dispersion	Days to Death
96346	10-25-49	114	-	1.0	0.114	0.57	1
96348	"	120	-	1.0	0.120	0.60	1
96351	"	102	-	1.0	0.102	0.51	4
96991	"	90	-	1.0	0.090	0.45	11
96990	"	102	+ 6	1.0	0.102	0.51	-
97033	11-1-49	110	-	0.50	0.055	0.28	13
97438	"	100	-	0.50	0.050	0.25	12
97489	"	92	-	0.50	0.046	0.23	12
97029	"	108	+ 2	0.50	0.054	0.27	-
97487	"	96	+ 31	0.50	0.048	0.24	-
97214	11-15-49	100	-	0.252	0.0252	0.13	4
97207	"	120	+ 51	0.252	0.0302	0.15	-
97201	"	114	+ 58	0.252	0.0287	0.14	-
97202	"	90	+ 39	0.252	0.0227	0.11	-
97099	"	120	+ 60	0.252	0.0302	0.15	-

100% survival assumed at dosage level of 0.126 gm./kg. for calculation of R.F. LD<sub>50</sub> by method of Thompson.

Table 13-33

TRIETHYLAMINE

Single Doses to Male Albino Rabbits by Skin Penetration

Administered undiluted under "Visylite" dum for 24 hrs.

Rabbit No.	Date Clipped	Date Applied	Gm. Wt.	Weight Change in 14 Days	Dosage; Ml. per Kilo	Dose in ml.	Days to Death
95197	10-19-49	10-21-49	2352	-	2.00	4.7	0
95198	"	"	2358	-	2.00	4.7	0
95199	"	"	2420	-	2.00	4.7	0
95204	10-21-49	10-21-49	2350	-	1.00	2.4	1
95206	"	"	2026	-	1.00	2.0	4
95208	"	"	2408	-	1.00	2.4	1
95209	"	"	2700	-	1.00	2.7	1
95210	"	"	2399	-	1.00	2.4	1
95215	10-21-49	10-21-49	2266	+ 234	0.50	1.4	-
95216	"	"	2402	+ 18	0.50	1.2	-
95176	10-24-49	10-24-49	2458	- 108	0.50	1.2	-
95121	"	"	2786	+ 44	0.50	1.4	-
89143	"	"	3175	- 565	0.50	1.6	-
95270	11-1-49	11-1-49	2186	-	0.252	0.64	2
95294	11-4-49	11-4-49	2623	-	0.252	0.67	10
95278	11-1-49	11-1-49	2380	- 130	0.252	0.60	-
89145	"	"	2806	+ 274	0.252	0.71	-
95291	11-4-49	11-4-49	2522	- 422	0.252	0.64	-

## CERTIFICATE OF AUTHENTICITY

THIS IS TO CERTIFY that the microimages appearing on this microfiche are accurate and complete reproductions of the records of U.S. Environmental Protection Agency documents as delivered in the regular course of business for microfilming.

Date produced 12 22 88 Barbara Smith  
(Month) (Day) (Year) Camera Operator

Place Syracuse New York  
(City) (State)

