

G101
Ethyl tert-Butyl Ether [637-92-3]

Results of Testing

Chemical Name	CAS No.	Study Code/Type	Protocol/Guideline	Species	Exposure	Dose/Concentration	No. per Group	Results	Reference
Ethyl tertiary butyl ether	637-92-3	HEADME Pharmacokinetics	Non-TSCA Protocol/Guideline (docket OPTS-42099A)	rats	inhalation; single 6 hr, nose only	500, 750, 1000, 1750, 2500, 5000 ppm	3/sex/dose	The majority of absorbed ¹⁴ C was eliminated by 48 hours after exposure. The total amount of ¹⁴ C eliminated was proportional to the exposure concentration. At all exposure concentrations, 96-98% of the total amount excreted was eliminated in the urine or exhaled as volatile organics. The balance of the radioactivity was found in the feces and exhaled CO ₂ . However, as exposure concentrations increased from 500 to 1750 ppm, the biological processes for the elimination and absorption of inhaled ethyl tertiary butyl ether became saturated.	OTS0557695
Ethyl tertiary butyl ether	637-92-3	HEADME Pharmacokinetics	Non-TSCA Protocol/Guideline (docket OPTS-42099A)	mice	inhalation; single 6 hr, nose only	500, 750, 1000, 1750, 2500, 5000 ppm	3/sex/dose	The majority of absorbed ¹⁴ C was eliminated by 48 hours after exposure. The total amount of ¹⁴ C eliminated was proportional to the exposure concentration up to 2500 ppm. At all exposure concentrations, 83-93% of the total amount excreted was eliminated in the urine or exhaled as volatile organics. The balance of the radioactivity was found in the feces and exhaled CO ₂ . However, as exposure concentrations increased from 500 to 1750 ppm and above, the biological processes for the elimination and absorption of inhaled ethyl tertiary butyl ether became saturated.	OTS0557696
Ethyl tertiary butyl ether	637-92-3	HEGTOXCHRM Bone marrow micronucleus	Non-TSCA Protocol/Guideline (docket OPTS-42099A)	mice	inhalation; 6 hr/d; 5 days	0, 400, 2000, 5000 ppm	5/sex/dose	The test substance did not produce significant, exposure-related increases in the frequency of micronucleated PCE in mice assessed 24 hours after termination of the final exposure. Therefore, the test substance was not considered to be an inducer of micronuclei under the conditions the test..	OTS0557636
Ethyl tertiary butyl ether	637-92-3	HEGTOXMUTA Chromosome aberration assay	Non-TSCA Protocol/Guideline (docket OPTS-42099A)	hamsters	<i>in vitro</i>	0.10, 0.30, 1.0, 3.0 and 5.0 mg/ml both in the absence and presence of metabolic activation.	Not applicable	Treatment of cultured CHO cells with the test substance did not result in statistically significant or concentration-related increases in the frequencies of chromosome aberrations either in the presence or in the absence of a rat liver S9 metabolic activation system. Therefore, the test substance was not considered to be clastogenic under the test conditions.	OTS0557635
Ethyl tertiary butyl ether	637-92-3	HEGTOXMUTA Forward mutation assay	Non-TSCA Protocol/Guideline (docket OPTS-42099A)	hamsters	<i>in vitro</i>	0.10, 0.30, 1.0, 3.0 and 5.0 mg/ml, both in the absence and presence of metabolic activation.	Not applicable	No statistically significant or concentration-related increases in mutation frequencies were observed at any of the concentrations tested, either in the absence or in the presence of S9 activation. Therefore, the test substance was not considered to be mutagenic to cultured CHO cells under the test conditions.	OTS0557634