

G089
Triethylene Glycol Ethers

Results of Testing

Chemical Name	CAS No.	Study Code/Type	Protocol/Guideline	Species	Exposure	Dose/Concentration	No. per Group	Results	Reference
Triethylene glycol monomethyl ether	112-35-6	HEGTOXCHRM Mammalian bone marrow micronucleus assay	40 CFR 798.5385	mice	oral (gavage), single dose	0, 500, 1667, 5000 mg/kg/d	5/sex	No evidence of clastogenicity was seen.	55 FR 13956; 5/13/90, OTS052647
Triethylene glycol monomethyl ether	112-35-6	HEGTOXMUTA Reverse mutation assay	40 CFR 798.5265	<i>Salmonella typhimurium</i>	<i>in vitro</i>	ranged from 50 to 5000 µg/plate	Not applicable	Tests in strains TA98, TA100, TA1535, and TA1537 did not increase mutation frequencies in any assay up to the limit of cytotoxicity, with or without activation.	55 FR 13956; 5/13/90, OTS0526547
Triethylene glycol monomethyl ether	112-35-6	HEGTOXMUTA Mutagenicity study	40 CFR 798.5300	chinese hamsters, ovary (CHO)	<i>in vitro</i>	ranged from 2000 to 5000 µg/L	Not applicable	Treatment did not increase mutation frequencies in any assay, with or without activation.	55 FR 13956; 5/13/90, OTS0526547
Triethylene glycol monomethyl ether	112-35-6	HENEUR Developmental neurotoxicity screen	40 CFR 795.250 (modified)	rats	oral (gavage), gestational day 6 to postnatal day 21	0, 300, 1650, 3000 mg/kg/d	16/group	Under the conditions of this study, the test substance was not associated with any treatment-related histopathologic lesions. The results of this study clearly demonstrate the ability of the motor activity, auditory startle, and active avoidance systems in use.	57 FR 11614; 4/06/92, OTS0000842
Triethylene glycol monomethyl ether	112-35-6	HENEUR Neuropathology	40 CFR 798.6400	rats	oral (drinking water), 90 days	0, 0.4, 1.2, 4.0 g/kg/d	15/sex/group	Treatment with the test substance did not result in clinical signs of toxicity, alterations in the functional observational battery, or gross or microscopic lesions in the nervous system. Decreased food consumption, body weight and body weight gain was seen at the two highest doses. Minor decreases in motor activity was observed in the high-dose group at day 60 (males) and day 90 (both sexes). Treatment produced moderate toxicity at 4.0 g/kg/day and mild toxicity at 1.2 g/kg/day. The test substance was determined not to produce neurotoxicity at doses as high as 4.0 g/kg/day. The no-observable-effect-level for neurotoxicity is at least 4.0 g/kg/day.	55 FR 50055; 12/4/90, OTS0530838
Triethylene glycol monomethyl ether	112-35-6	HENEUR Functional observational battery	40 CFR 798.6200	rats	oral (drinking water), 14 day	0, 0.75, 1.6, 3.9, 8.0 g/kg/d (actual doses, time weighted average)	10 males	Decreased mean hind limb grip strength and mean rearing events were noted in high-dose rats.	55 FR 50055; 12/04/90,

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Triethylene glycol monomethyl ether	112-35-6	HENEUR Motor activity	40 CFR 798.6200	rats	oral (drinking water), 90 d	0, 0.4, 1.2, 4.0 g/kg/d	15/sex/group	Treatment with the test substance did not result in clinical signs of toxicity, alterations in the functional observational battery, or gross or microscopic lesions in the nervous system. Decreased food consumption, body weight and body weight gain was seen at the two highest doses. Minor decreases in motor activity was observed in the high-dose group at day 60 (males) and day 90 (both sexes). Treatment produced moderate toxicity at 4.0 g/kg/day and mild toxicity at 1.2 g/kg/day. The test substance was determined not to produce neurotoxicity at doses as high as 4.0 g/kg/day. The no-observable-effect-level for neurotoxicity is at least 4.0 g/kg/day.	55 FR 50055; 12/4/90, OTS0530838
Triethylene glycol monomethyl ether	112-35-6	HERTOXTERA Developmental toxicity	40 CFR 798.4900	rabbits	oral (gavage), gestation day 6-18	0, 250, 500, 1000, 1500 mg/kg/d	20 females	Maternal toxicity occurred at 1000 mg/kg/day (death of one doe). High-dose dams had clinical signs, decreased body weight, and food consumption. High-dose fetuses had increased incidences of delayed skeletal ossification of the xiphoid. The NOEL for both maternal and developmental toxicity was 500 mg/kg/day.	55 FR 17670; 5/26/90, OTS0526548
Triethylene glycol monomethyl ether	112-35-6	HERTOXTERA Developmental toxicity	40 CFR 798.4900	rats	oral (gavage), gestation day 6-15	0, 625, 1250, 2500, 5000 mg/kg/d	25 females	Maternal toxicity (decreased food consumption) was seen in the 2500 and 5000 mg/kg/day group; one high-dose dam died, and others showed clinical signs, and decreased body weight gain and gravid uterine weights. Decreased fetal weight was seen at 2500 mg/kg/day and higher. The NOEL for maternal and developmental toxicity was 625 mg/kg/day.	55 FR 17670; 5/26/90, OTS0526548
Triethylene glycol monomethyl ether	112-35-6	HESTOX Subchronic dermal toxicity	40 CFR 798.2250	rats	dermal, 13 wks	0, 400, 1200, 4000 mg/kg/d	10/sex/group	The only treatment-related effects noted in this study consisted of focal areas of dermal irritation in all animals treated. The no-observed-effect-level (NOEL) for systemic toxicity was 4000 mg/kg bw/day.	55 FR 50055; 12/04/90, OTS0530838
Triethylene glycol monomethyl ether	112-35-6	HESTOX Subchronic toxicity	40 CFR 798.2650	rats	oral (drinking water), 14 days	0, 0.75, 1.6, 3.9, 8.0 g/kg/d (actual doses, time weighted average)	10 males	No mortalities occurred. Dose-related decreased mean food consumption and body weight gain were noted at 3.9 g/kg/day and higher. High-dose animals also showed clinical signs indicative of general debilitation and malaise (including functional observational battery signs, general cachexia, gait alterations, and piloerection); necropsy revealed lung discoloration. The NOEL was 1.6 g/kg/day.	55 FR 50055; 12/04/90, OTS0526547