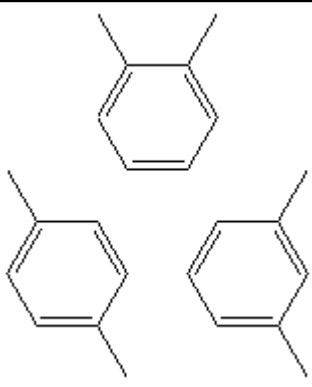


ALASKA TOP TEN HAZARDOUS AIR POLLUTANTS: Mass Release

#2	XYLENES (isomer and mixtures)	
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Inventory Estimate

Community	Total Emitted (tons per year)	Top Sources
Anchorage	391	Painting, cars/trucks, off-road mobile sources
Fairbanks	162	Painting, cars/trucks, off-road mobile sources
Juneau	264	Off-Road: 2-stroke outboards, 2-stroke personal watercraft, 2-stroke 6 horsepower chainsaws
Total of 3 Communities	817	

Xylene Source

vehicles	painting activities	boats and ships
power generators	aircraft	airports
locomotives	wastewater facilities	off-road equipment like construction equipment and chainsaws
military bases	asphalt plants and paving	hospitals
wood stoves	fish processors	service stations
refineries	consumer products like automotive care and sealants	

Xylene Emission Inventory Improvements

- Measure activity levels for marine sources especially in Juneau
- Refine Off-road sources such as chainsaws
- Measure activity levels for painting
- Refine evaporative emissions from fuel storage, loading and dispensation
- Refinement of emission factors

Xylene Health Effects

Low level (<100 ppm): Generally no effect. Occupationally exposed may experience some irritation to eyes and lungs. Odor threshold between 1 and 14 ppm.

Medium to High level (100-10000 ppm): Eye, nose, and throats irritation. 4 day exposures (15 min. to 6 hours per day) at lower (100-300 ppm) levels impacted counting ability, reaction time and short term memory. May experience lightheadedness, headaches, nausea and vomiting, clumsiness, and further impairment of nervous system functions.

Very High Level(>10000 ppm): Reversible renal failure. Severe nervous system effects - depression, ataxia, tremor, involuntary eye movements, impaired speech, hearing, and vision. Death possible within 20 hours.

Cancer rating: EPA determined toluene is not classifiable as a human carcinogen.
