Styrene Fact Sheet

for field use with mobile monitoring instruments

This Field Guide provides a summary of the different mobile monitoring comparison values developed by the Toxicology, Risk Assessment, and Research Division for use in evaluating real-time mobile monitoring data in the field.

***All derived mobile monitoring comparison values are intended to be used as guidance**. Field investigators and mobile monitoring staff should use their own discretion when deciding to mitigate exposure, such as when experiencing health effects or intense odors, regardless of measured concentrations.*

What is Styrene?

- Styrene is a colorless to slightly yellow oily liquid with a sweetish, sharp odor.
- Styrene is widely used make polystyrene, rubber resins, and insulators.
- Styrene is released into the air during manufacturing and production processes.

At What Levels Can Styrene Cause Harm?

Breathing high levels of styrene for a short period of time can result in eye, nasal, and throat irritation, and central nervous system effects (tiredness, color vision changes, balance problems, etc.). Long-term exposure to high concentrations of styrene in the air can result in neurological effects including changes in color vision, slowed reaction time, concentration problems, and balance problems.

Mobile Monitoring Comparison Values

	Styrene
iBDIL (ppb) Orange	60
iHPIL (ppb) Red	5,100
iHBAL (ppb) Purple	15,300
$^{EM}HBAL_{10min}$ (ppb)	10,000
$^{EM}HBAL_{1hr}$ (ppb)	10,200
$^{EM}HBAL_{1sec}$ (ppb)	30,600

iBDIL - instantaneous baseline-derived investigation level

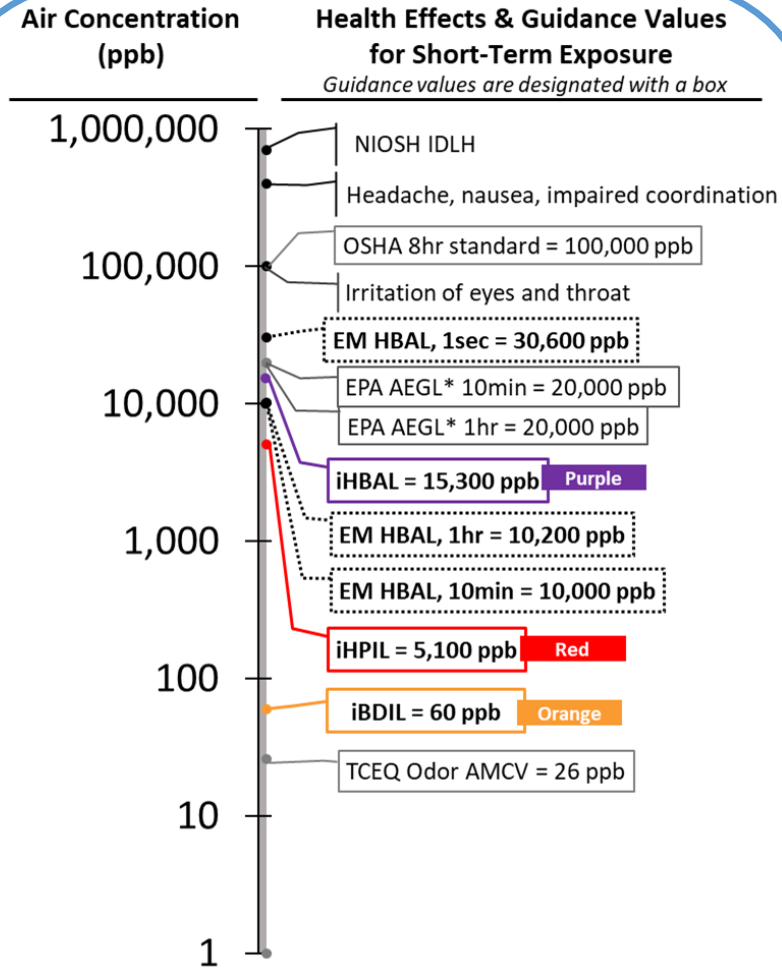
iHPIL - instantaneous health-protective investigation level

iHBAL - instantaneous health-based action level

$^{EM}HBAL_{10min}$ - 10-minute health-based action level for exposure mitigation

$^{EM}HBAL_{1hr}$ - 1-hour health-based action level for exposure mitigation

$^{EM}HBAL_{1sec}$ - 1-second health-based action level for exposure mitigation



*AEGL = Acute Exposure Guideline Level. The AEGL levels shown are AEGL-1, which is the concentration above which notable discomfort, irritation, or certain asymptomatic non-sensory effects are expected.

IDLH—immediately dangerous to life or health

For more information on EPA's AEGL values, please see EPA's website.

All MMCVs are **safe levels**; AEGLs are health effects levels

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