

## **Benzene 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 Benzene?

- Benzene can be found everywhere in the environment
- Benzene rapidly degrades in the atmosphere
- Benzene has an aromatic, paint-thinner-like, sweet odor

## At What Levels Can Benzene Cause Harm?

Breathing high levels of benzene for a short period of time can affect the central nervous system. Repeated exposure to high levels over several days or longer can cause damage to blood cells. Long-term exposure (e.g., many years) is associated with an increased risk for cancer (i.e., acute myelogenous and monocytic

leukemia).

## **Mobile Monitoring Comparison Values**

		Benzene
iBDIL (ppb)	Orange	80
iHPIL (ppb)	Red	180
iHBAL (ppb)	Purple	540
<sup>EM</sup> HBAL <sub>10min</sub> (ppb)		500
<sup>EM</sup> HBAL₁hr (ppb)		360
<sup>EM</sup> HBAL <sub>1sec</sub> (ppb)		1,080

iBDIL - instantaneous baseline-derived investigation level

**iHPIL** - instantaneous health-protective investigation level

iHBAL - instantaneous health-based action level

EMHBAL<sub>10min</sub> - 10-minute health-based action level for exposure mitigation

- EMHBAL<sub>1hr</sub> 1-hour health-based action level for exposure mitigation
- EMHBAL<sub>1sec</sub> 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.

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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