



# Technical Note

## SKC 575-002 Passive Sampler Diisobutyl Ketone (DIBK) Method Summary (25 ppm PEL) Validation to NIOSH Protocol\*

**PROCEDURE:** Adsorption on the Passive Sampler Cat. No. 575-002 containing 500 mg Anasorb® 747, with desorption (in situ) with 2 ml carbon disulfide and analysis by gas chromatography with flame ionization detection.

**SAMPLING RATE:** 10.3 ml/min tested for linearity over the range of 30 minutes to eight hours.

<b>ANALYTICAL RECOVERY:</b>	% Recovery	% RSD**	Validation Range	
	98.3%	4.98	(µg) 75 to 1500	(8-hour TWA ppm) 2.5 to 50

**STORAGE:** Samples, which were collected for eight hours at the PEL at 80% RH (25 C), can be stored for 21 days at ambient (25 C) or refrigerator (3 C) temperatures with no loss in recovery.

**HUMIDITY EFFECTS:** High humidity conditions (80% RH at 25 C) did not affect the uptake rate or recovery.

**LIMIT OF DETECTION:** The Limit of Detection (LOD) as defined by a 3:1 signal to noise ratio was 10 µg/badge. This corresponds to an LOD in air of 0.32 ppm (v/v) based on an eight-hour sample at the validated sampling rate of 10.3 ml/min.

**VALIDATION DATE:** July 1993

\* Sampler passed all criteria of Bi-level Validation to NIOSH Protocol at PEL of 25 ppm.

\*\* Relative Standard Deviation

**For More Information Request Research Report Publication No. 1305**

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SKC Inc. 724-941-9701

SKC South 434-352-7149

SKC Gulf Coast 281-859-8050 SKC West 714-992-2780

www.skcinc.com