



Technical Note

SKC 575-002 Passive Sampler Methyl Methacrylate (MMA) Method Summary (100 ppm PEL) Validation to NIOSH Protocol*

PROCEDURE: Adsorption on the 575-002 sampler 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: 13.1 ml/min tested for linearity over the range of 7.5 minutes to eight hours.

ANALYTICAL RECOVERY:	% Recovery	% RSD**	Validation Range	
			(µg)	(8-hour TWA ppm)
	100.5	5.51	250 to 6400	10 to 200

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 0.35 ppm (v/v) based on an eight-hour sample at the validated sampling rate of 13.1 ml/min.

VALIDATION DATE: October 1993

* *Sampler passed all criteria of Bi-level Validation to NIOSH Protocol at PEL of 100 ppm.*

** *Relative Standard Deviation*

For More Information Request Research Report Publication No. 1308

Notice: This publication is intended for general information only and should not be used as a substitute for reviewing applicable government regulations, equipment operating instructions, or legal standards. The information contained in this document should not be construed as legal advice or opinion nor as a final authority on legal or regulatory procedures.

Publication 1340 Rev 1201

SKC Inc. 724-941-9701

SKC South 434-352-7149

SKC Gulf Coast 281-859-8050

SKC West 714-992-2780

www.skcinc.com