

Sampling Solutions for Isocyanates

Introduction

Isocyanates are used to make flexible and rigid foams, fibres, coatings (paints and varnishes), and elastomers. They are being used increasingly in the automotive industry, auto body repair, and building insulation materials. Workplace exposure to isocyanates may cause irritation of the eyes and gastrointestinal and respiratory tracts, dermatitis, and respiratory and dermal sensitization. Workers who become sensitized to isocyanates may experience severe asthma attacks upon subsequent exposure.¹ At least 15 percent of all adult onset asthma cases are associated with occupational exposure.²



SKC offers active solutions for sampling isocyanates in the workplace. SKC active samplers require an air sample pump to collect hazardous gases and vapours in air.

¹ CDC/NIOSH, www.cdc.gov/niosh/topics/isocyanates

² OSHA National Emphasis Program: Occupational Exposure to Isocyanates

SKC Sampling Solutions

For over 50 years, SKC has led the research, design, and manufacture of quality sampling equipment and media to aid health and safety professionals in the evaluation of occupational and environmental hazards.

SKC method-based sampling solutions for isocyanates include air sample pumps, samplers and filter cassettes, following agency methods and established protocols.

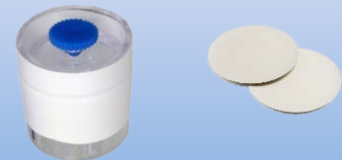
Air Sample Pumps



Samplers



Sampling Media



Sample Collection

Active Air Sampling Solutions

Target Compound	Select Methods*	SKC Sample Collection Media and Part No.	SKC Sample Pump and Part No.	Notes
Diisocyanates: 2,4-TDI, 2,6-TDI, and HDI	ASTM D5932 ASTM D6561 ASTM D6562	ISO-CHEK preloaded cassette 225-9022	AirChek TOUCH 220-5000TC	For simultaneous collection and separation of isocyanate vapour and aerosol phases.
	OSHA 42	Preloaded filter cassette 225-9002 or 225-9013	AirChek TOUCH 220-5000TC	A slight modification in filter preparation of 225-9002 allows for longer shelf life. It is acceptable for use.
Isocyanates	NIOSH 5521 NIOSH 5522	Impinger 225-36-1 and impinger trap 225-22	AirChek TOUCH 220-5000TC	
Isocyanates, total	NIOSH 5525	IOM Sampler 225-79A and glass fibre filter 225-702	AirChek TOUCH 220-5000TC	Filter must be chemically treated before sampling per NIOSH 5525.
MDI	OSHA 47	Preloaded filter cassette 225-9013 or 225-9002	AirChek TOUCH 220-5000TC	Either filter is acceptable for use. 225-9002 has longer shelf life but may pose analytical problems for MDI separation. Check with your lab to select desired filter.

* Other methods may apply. SKC recommends those listed.