

# Fourier Transform Infrared (FTIR) Spectroscopy



**AIR HYGIENE, INC.**



**Testing Solutions  
for a Better World**

## Why Air Hygiene FTIR Labs are the Solution for your Testing Needs!

- Five (5) FTIR labs for formaldehyde, VOC's, & HAPS by EPA Method 320, 321 & ASTM D-6348!
- Real-time data on-site for evaluation!
- On-site draft test reports & final report in 10 Days!
- Catalyst performance analysis (inlet & outlet testing) on-site with real-time data!
- Speciated VOC's on-site
- Greenhouse Gases measured real-time, on-site (N<sub>2</sub>O, CO<sub>2</sub>, CH<sub>4</sub>)!
- SCR tuning with point-by-point data, real-time for NH<sub>3</sub>, NO, & NO<sub>2</sub>!
- Portable power by on-board generator!
- 23 QSTI certified personnel!
- Tests in all 50 states, Mexico, & Canada!

Corporate Headquarters:  
1600 West Tacoma Street  
Broken Arrow, OK 74012

(918) 307-8865  
(888) 461-8778



**AIR HYGIENE, INC.**

Remote Office Locations:  
Las Vegas, NV  
Ft. Worth, TX  
Austin, TX  
Shreveport, LA  
Chicago, IL  
Pittsburgh, PA

[WWW.AIRHYGIENE.COM](http://WWW.AIRHYGIENE.COM)



Air-Hygiene-International-Stack-Testing



@Air Hygiene

# FTIR Compounds

Any gas or liquid compound that absorbs infrared light can potentially be identified and quantified using the FTIR. The gas phase infrared spectral standards are available for the compounds listed below. Reference spectra not included in this list may be already available or can be prepared.

acetaldehyde	ethane	perfluorohexane
acetic acid	ethanol	perfluoromethane
acetone	ethyl acrylate	perfluoropropane
acetonitrile	ethyl benzene	perfluoropropene
acetophenone	ethyl chloride (chloroethane)	phenol
acrolein	ethylbenzene	phosphine
acrylic acid	ethylene	propane
acrylonitrile	ethylene dibromide - (dibromoethane)	1,2,3-propanetriol w/methyl oxirane
allyl chloride	ethylene dichloride	propionaldehyde
2-amino-2-methyl-1-propanol	ethylene oxide	propylene dichloride
ammonia	ethylidene dichloride	propylene glycol
aniline (phenylamine)	fluoroethane	propylene glycol methyl ether acetate
arsine	fluoromethane	propylene oxide
benzene	formaldehyde	1,2-propylenimine-(2-methyl aziridine)
benzotrithloride	hexachlorobutadiene	quinoline
benzyl chloride	hexachlorocyclopentadiene	silane
beta-propiolactone	hexachloroethane	silicon tetrafluoride
bis (chloromethyl) ether	hexamethylphosphoramide	styrene
boron trichloride	hexane	styrene oxide
boron trifluoride	hexyl acetate	sulfur dioxide
bromoform	hydrazine	sulfur hexafluoride
1,3-butadiene	hydrogen bromide	sulfuryl fluoride
1-butanol	hydrogen chloride	1,1,2,2-tetrachloroethane
butyl acetate	hydrogen fluoride	tetrachloroethylene (perchloroethylene)
carbon dioxide	isophorone	tetraethoxy silane (TEOS)
carbon disulfide	isopropanol	1,1,1,2-tetrafluoroethane
carbon monoxide	maleic anhydride	1,1,2,2-tetrafluoroethane
carbon tetrachloride	methane	thionyl fluoride
carbonyl fluoride	methanol	toluene
carbonyl sulfide	methyl bromide - (bromomethane)	2,4-toluene diisocyanate
chloroacetic acid	methyl chloride - (chloromethane)	1,2,4-trichlorobenzene
2-chloroacetophenone	methyl chloroform - (1,1,1-trichloroethane)	1,1,2-trichloroethane
chlorobenzene	methyl ethyl ketone - (2-butanone)	trichloroethylene
chloroform	methyl hydrazine	2,4,5-trichlorophenol
chloromethyl methyl ether	methyl iodide - (iodomethane)	triethylamine
chloroprene (2-chloro-1,3-butadiene)	methyl isoamyl ketone	1,1,1-trifluoroethane
m-cresol	methyl isobutyl ketone - (hexone)	1,1,2-trifluoroethane
o-cresol	methyl methacrylate	trifluoromethane
p-cresol	methyl tert butyl ether	tungsten hexafluoride
cumene	methylene chloride-(dichloromethane)	2,2,4-trimethylpentane
cyclohexanone	n,n-diethyl aniline	vinyl acetate
1,2-dibromo-3-chloropropane	nitric oxide	vinyl bromide
1,4-dichlorobenzene	nitrogen dioxide	vinyl chloride
dichloroethyl ether	n-nitrosodimethylamine	vinylidene chloride
1,3-dichloropropene	n-nitrosomorpholine	m-xylene
dichlorvos	naphthalene	o-xylene
difluoroethane	nicotine	p-xylene
difluoromethane	nitrobenzene	
dimethyl carbamyl chloride	2-nitropropane	
dimethyl formamide	o-toluidine	
1,1-dimethyl hydrazine	oxygen difluoride	
dimethyl phthalate	ozone	
1,4-dioxane - (1,4-diethylene oxide)	pentafluoroethane	
epichlorohydrin	perfluorobutane	
1,2-epoxybutane	perfluoroethane	



# Testing Solutions for a Better World

**Air Hygiene's** core philosophy of "Second-to-None (2-2-0)", demands extra mile customer service anchored on dignified character and family-oriented principles to deliver unmatched quality stack testing, worth paying for every time. We utilize revolutionary technology and **Air Hygiene University** to create the best educated work force to define the future of stack testing.

Providing air emission testing since 1997 and headquartered in Broken Arrow, Oklahoma, **Air Hygiene** provides testing services throughout the continental United States as well as internationally. Its client base includes various industries from oil and gas companies to utilities, manufacturers, and other similar industries.

**Air Hygiene** has experienced testing teams led by project managers with significant testing experience and a broad understanding of the federal and state regulations. **Air Hygiene** has thirty (30) combustion emission testing systems.

Our pricing and flexibility are second to none. **Air Hygiene** prides itself on testing efficiency and has experience with complex testing; including formaldehyde by FTIR (EPA Method 320 or ASTM D-6348) to meet RICE MACT, non-methane/ethane VOCs on-site with field GC or FTIR for JJJJ (40 CFR Part 60 Subpart JJJJ), PM, PM-10, & PM-2.5 testing (EPA Methods 1-5, 201a, 202).

**Air Hygiene** can complete numerous engines in a single day and has experience with testing large engine fleets within short duration or on a repeated schedule to meet periodic monitoring requirements. **Air Hygiene** has five (5) FTIR labs!

Below are some of AHl's satisfied customers. Please contact us for more information!



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