

Sample Report

Client: Air Quality Inspections
1245 Main St. Suite B
Pleasantville, MA 84847
U.S.A.
Sampled By: Alex Carter
Project: Smith
Location: 123 W. Maple Ave.
Boston, MA 25478
Client Sample ID: Office
Sample Volume (L): 5.0
Date Sampled: 12/31/2012
Sample Type: TDT 112J

COC: 6010
Laboratory ID: 6010-2

Received Date: 01/02/2013
Approved Date: 01/02/2013
Scanned Date: 01/03/2013
Report Date: 01/04/2013

Formaldehyde Concentration: 30 ng/L (24 ppb)

Your Formaldehyde Level (Highlighted)

Low	Average	Elevated	High
0-20 ng/L	20-50 ng/L	50-100 ng/L	100 + ng/L

Recommendation: Average formaldehyde level but improvements can be achieved by locating and removing sources. See formaldehyde sources section below.

Formaldehyde Exposure Limits

The National Institute for Occupational Safety and Health (NIOSH) has set a recommended exposure limit (REL) of 20 ng/L (16 parts per billion). The Occupational Health and Safety Administration (OSHA) has set a **workplace permissible exposure limit (PEL)** of 936 ng/L (750 parts per billion). For more information on exposure limits, see this report about [Environmental Health](#).

Because of the number and range (from a few ppb to almost one ppm) of published exposure limits, the levels displayed above are based on the statistical distribution of concentrations Prism has gathered rather than exposure limits.

Formaldehyde Sources

The main sources of formaldehyde are composite or engineered wood products that contain urea-formaldehyde (UF) resins (e.g., particleboard, hardwood plywood paneling, medium density fiberboard). Products that contain phenol-formaldehyde (PF) resin also emit formaldehyde but at lower concentrations (e.g., softwood plywood, flake or oriented strand board). Formaldehyde is also present in other building products such as pre-finished engineered flooring, insulation, glues and adhesives, and paints and coatings, as well as textiles, disinfectant cleaning products and soaps, preservatives, cosmetics, some air fresheners, pet care products, bactericides and fungicides. Formaldehyde is also a byproduct of many combustion processes, such as tobacco smoke and fuel-burning appliances (gas stoves, kerosene space heaters and fireplaces).

The resources listed below provide additional information about formaldehyde.

US Environmental Protection Agency
<http://www.epa.gov/iaq/formaldehyde.html>
<http://www.epa.gov/ttn/atw/hlthef/formalde.html>

Agency for Toxic Substances and Disease Registry (ATSDR)
<http://www.atsdr.cdc.gov/toxfaqs/faq.asp?id=219&tid=39>

National Institutes of Health (NIH)
http://www.niehs.nih.gov/health/materials/fact_sheet_formaldehyde.pdf
http://toxtown.nlm.nih.gov/text_version/chemicals.php?id=14
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2855181/>

These results are authorized by the Laboratory Director or approved representative.

This analysis was performed by Prism Analytical Technologies, Inc. (Prism) using the Hantzsch method. This test method has been correlated with or is compliant with the California Air Resources Board (CARB) § 93120, European DIN Standard EN-717, and ASTM methods D-5582 and E-1333. It has also been compared with DNPH testing used in NIOSH 2016 and found to be in good agreement. Prism Analytical Technologies, Inc. (ID 166272) is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene accreditation program for GC/MS Field of Testing as documented by the Scope of Accreditation Certificate and associated Scope. The results contained in this report are dependent upon a number of factors over which Prism has no control, which may include, but are not limited to, the sampling technique utilized, the size or source of sample, and the ability of the sampler to collect a proper or suitable sample. Therefore, the opinions contained in this report may be invalid and cannot be considered as definitive and neither Prism, nor its agents, officers, directors, employees, or successors shall be liable for any claims, actions, causes of action, costs, loss of service, medical or other expenses or any compensation whatsoever which may now or hereafter occur or accrue based upon the information or opinions contained herein.

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