

Aldehydes by EPA8315A/SOP 4010, Rev 9

Sample Preparation: The samples were analyzed according to Exova SOP 4010, Rev 9, which is chemically the same as and procedurally similar to EPA Method 8315A. 1.0 g of sample was extracted in 20.0 mL DI water by mixing for 20 minutes on a mechanical shaker, and then diluted with water before derivatization with 2,4-dinitrophenylhydrazine (DNPH). At a 1:1000 dilution factor, almost all of the DNPH reagent reacted with an unknown matrix component giving extremely low spike recoveries of formaldehyde and acetaldehyde (5% - 6%). The extract was further diluted with DI water to a dilution factor of 1:50000, followed by derivatization with DNPH. All test solutions were analyzed by HPLC with UV detection at 360 nm. Recoveries of matrix spikes were within normal limits. The detection limit was adjusted for the final dilution factor.

Parts Per Million (µg/g)

Sample ID	Acetaldehyde	Formaldehyde
LK Professional	ND	ND
LK Professional Duplicate	ND	ND
Method Blank	ND	ND
Detection Limit	300	300
Date Derivatized:	02-07-11	
Date Analyzed:	02-07-11	

Quality Control Summary
 Parts Per Million

Sample ID: LK Professional

Analyte	Sample Result	Duplicate Result	Sample RPD	Spike Conc	Spike Result	Spike % Recovery
Acetaldehyde	ND	ND	NA	50000	41100	82
Formaldehyde	ND	ND	NA	50000	42300	85

Sample ID: Laboratory Fortified Blank

Analyte	Blank Result	Spike Conc	Spike Result	Spike % Rec
Acetaldehyde	ND	20.0	17.4	87
Formaldehyde	ND	20.0	17.8	89

QC Guidelines 80 - 115

Glutaraldehyde by SOP 4010, Rev 9

Sample Preparation: 1.0 g of sample was extracted in 20.0 mL DI water by mixing for 20 minutes on a mechanical shaker, and then diluted with water. 0.4 mL aliquot was further diluted with a mixture of 3.4 mL of acetonitrile and 1.0 mL of water. The pH of the resulting solutions was adjusted with 0.4 mL of pH 3 citrate buffer and the solutions were derivatized with 0.4 mL of dinitrophenylhydrazine reagent (DNPH). The mixtures were allowed to react for one day and then analyzed by HPLC with detection at 360 nm. The detection limit was adjusted for the dilution factor.

Sample ID	Parts Per Million (µg/g)
LK Professional	ND
Method Blank	ND
Detection limit	300
Date Derivatized:	02-07-11
Date Analyzed:	02-08-11

Quality Control Summary

Sample ID	LK Professional						
Analyte	Sample Result	Spike Conc	Spike Result	Spike % Rec	Spike Dup Result	Spike Dup % Rec	Spike RPD
Glutaraldehyde	ND	100000	96700	97	96500	97	0
QC Guidelines				75 - 125		75 - 125	12

Sample ID: Laboratory Fortified Blank

Analyte	Sample Result	Spike Conc	Spike Result	Spike % Rec
Glutaraldehyde	ND	100000	95800	96
QC Guidelines				80 - 115