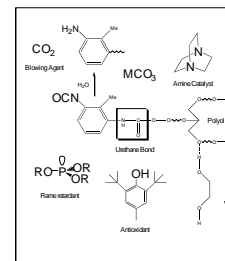




The Chemical Company

Interoffice

Date: 9/14/16
To: Ted Smiecinski
From/Unit: David Ervin
Location/Extension: Wyandotte/X-6691
Subject: CTL55568
Copies: J. Lanza



Urethane Chemical Eval

Background: Determination of lead and phthalate content in a foam sample in connection with CertiPur-US Standards.

Summary: Neither lead nor phthalates were detected in the foams.

Sample: Two white foams

Analysis:

The foam samples were heated in heptane at 90°C overnight to extract any phthalates present. The heptane extract was then subjected to mass spectrometry. No phthalates were detected in the foam samples. Table 2 shows the detection limits for phthalates under the experimental conditions used for the analysis

Table 2. Phthalate Detection Limits	
Phthalate	PPM
di-butyl phthalate	50.0
di-ethylhexyl phthalate	50.0
butylbenzyl phthalate	50.0
di-n-octyl phthalate	50.0
di-isononyl phthalate	200.0
di-isodecyl phthalate	200.0

Metals analysis was conducted by digestion in nitric acid at 120°C. The digested solutions were analyzed by inductively coupled plasma atomic emission spectroscopy. Lead was not detected with a detection limit of < 4 ppm. Results are shown in table 2.

Table 2. ICP-AES RESULTS			
Element	Foam #1	Foam #2	MDL
As	ND	ND	5
B	ND	ND	0.5
Ba	8	0.8	0.1
Be	ND	ND	0.3
Ca	27	15	0.3
Cd	ND	ND	0.7
Co	ND	ND	0.7
Cr	ND	ND	0.5
Cu	<0.4	ND	0.1
Fe	5	2	0.3
K	8	<4	1
Li	ND	ND	0.1
Mg	2	0.9	0.1
Mn	ND	ND	0.1
Mo	ND	ND	1
Na	9	5	0.5
Ni	ND	ND	1
P	71	71	5
Pb	ND	ND	4
S	ND	ND	7
Sb	ND	ND	3
Se	ND	ND	7
Sn	372	371	7
Sr	ND	ND	0.1
V	ND	ND	0.4
Zn	2	2	0.3

MDL: Method Detection Limit
 ND: Not Detected
 Note: $\pm 10\%$ error in Table 2.