

BOILING POINT

TEST SUBSTANCE

Identity: N-ethylperfluorooctane sulfonamidoethanol; may also be referred to as N-EtFOSE Alcohol, FC-10, or FM-3422. (1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-, CAS # 1691-99-2)

Remarks: Material is an off-white, waxy solid.

METHOD:

Method followed: The boiling point was determined as a part of the OECD Guideline 104, "Vapor Pressure Curve, Dynamic Method" study.

GLP: No

Year study was performed: 1998

Remarks: Material is stable at room temperature. Sample was indicated to be 99% pure in the vapor pressure study.

RESULTS

The following table summarizes boiling points measured during vapor pressure testing of the N-EtFOSE Alcohol material, plus the extrapolation value at atmospheric pressure.

Pressure (mm Hg)	Boiling Temp. (°C)	Pressure (mm Hg)	Boiling Temp. (°C)
42	174.6	37	172.2
55	179.0	48	176.4
67	187.2	68	188.2
81	190.2	83	191.6
96	197.0	93	195.8
760*	474*	760*	482*
$r^2=0.9902$		$r^2=0.9908$	

* Extrapolated values

Remarks: No note was made if any decomposition was occurring.

CONCLUSIONS

Testing should be conducted to record an empirical value to replace the extrapolated ones.

DATA QUALITY

Reliability: Klimisch ranking = 3. The boiling point was not obtained empirically. Boiling point values were extrapolated from data obtained during vapor pressure testing.

REFERENCES

Determination of Vapor Pressure Curve by Dynamic Method for U1463 (ET FOSE), AScl Report # 044-VP.R3M, AScl Study ID #5030-044-01, November 6, 1998. Conducted at the request of 3M Company.

OTHER

Submitter: 3M Company, Environmental Laboratory, P.O. Box 33331, St. Paul, Minnesota, 55133

Last changed: 5/15/00



ASCI Corporation

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November 30, 1998

 Ms. Susan Beach
 3M Environmental Technology
 & Safety Services
 935 Bush Avenue
 St. Paul, Minnesota 55133

Dear Ms. Beach:

I am writing in response to your request of boiling point information for test items U1463 and U1464. Unfortunately we did not obtain empirical values for the boiling point of either item. Although experimental values were not obtained, we did extrapolate values using the temperature and pressure curves obtained for both items. The tables below summarize the extrapolations.

Test Item U1463 FL-10

Pressure (mm Hg)	Boiling Temp. (°C)	Pressure (mm Hg)	Boiling Temp. (°C)
42	174.6	37	172.2
55	179.0	48	176.4
67	187.2	68	188.2
81	190.2	83	191.6
96	197.0	93	195.8
760	474	760	482
$r^2=0.9902$		$r^2=0.9908$	

Test Item U1464

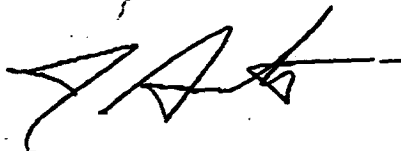
FX-12

Pressure (mm Hg)	Boiling Temp. (°C)	Pressure (mm Hg)	Boiling Temp. (°C)
42	171.6	47	174.4
58	178.8	75	183.8
68	181.8	86	188.0
83	186.4	95	191.0
94	190.2	106	193.0
760	423	760	407
$r^2=0.9961$		$r^2=0.9960$	

November 30, 1998
Ms. Beach - 3M Co.
Page - 2 -

I apologize that the extrapolated values were all we can provide. The boiling point for both compounds should have been determined before vapor pressure determination. Please call if you need further information.

Sincerely,

A handwritten signature in black ink, appearing to read 'J Amato', with a horizontal line extending to the right.

Joe Amato
Deputy Director, ASci-ETD