

MELTING POINT

TEST SUBSTANCE

Identity: Decafluoro(pentafluoroethyl)cyclohexanesulfonate, DEA salt; may be referred to as CS-2070. When dissolved in water may also be referred to or as CS-2151 or FC-90. (DEA salt of perfluoro(ethylcyclohexyl) sulfonate, $[C_2F_5-CF(CF_2CF_2)_2CF-SO_3-][H_2N(CH_2CH_2OH)_2+]$)

Remarks: There is no 3M production lot number available for this sample. The test substance is reported to be the dried solid from CS-2151 which is 25% CS-2070 solids in water.

METHOD

Method: CIPAC Method #MP2 employing a Thomas Hoover Uni-Melt apparatus.

GLP: No

Year completed: 1981

RESULTS

Melting point value in °C: Liquid first observed at 75°C
Complete melt at 145°C

Decomposition: No

Sublimation: No

Remarks: The sample was heated in air at 10°C per minute. It appears waxy at room temperature. The sample was soft through the melting range and appeared gel-like. Benzoic acid melted at 122°C. This study indicated only 5% weight loss by 280°C and stable to 200°C. A 50% weight loss occurs at about 370°C.

CONCLUSIONS

The sample was first observed to melt at 75°C and completely melted at 145°C. The midpoint of the melting range was 110°C.

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

DATA QUALITY

Reliability: Klimisch ranking 3. Except for weight loss, no raw data or records of the procedure were found. The test sample purity was not characterized.

REFERENCES

Study conducted at the 3M Commercial Chemicals Analytical Laboratory, Analytical Report number 244, July 29, 1981.

OTHER

Last changed: 4/01/01