



>>Entry Name: *N,N*-Dimethylaniline, 8Cl

Synonym(s): *N,N*-Dimethylbenzenamine, 9Cl

CAS Registry Number: 121-69-7

Type of Compound Code(s): PA2700 PA3050 PA4100

PhNMe<sub>2</sub>

Molecular Formula: C<sub>8</sub>H<sub>11</sub>N

Molecular Weight: 121.182

Accurate Mass: 121.089149

Percentage Composition: C 79.29%; H 9.15%; N 11.56%

Use/Importance: Intermed. for dyestuffs. Base with various synthetic uses. Used for detn. of H<sub>2</sub>O<sub>2</sub>, H<sub>2</sub>S, NO<sub>2</sub><sup>(-)</sup>

Physical Description: Yellowish-brown oily liq.

Melting Point: Mp 2.5°

Boiling Point: Bp 193°. Bp<sub>13</sub> 77°

Density: d<sub>4</sub><sup>20</sup> 0.9557

pKa Value: pK<sub>a</sub> 5.07 (25°)

Other Data: Steam-volatile

**Hazard & Toxicity:** Explosive mixt. with dibenzoyl peroxide. Fl. p. 63/74°, autoignition temp. 370°. OES: long-term, 5 ppm; short-term 10 ppm (Sk). Inhalation or skin absorption can cause adverse CNS effects and cyanosis. Skin irritant. LD<sub>50</sub> (rat, orl) 1410 mg/kg. LD<sub>50</sub> (rbt, skn) 1770 mg/kg

Aldrich: D14575-0

Fluka: 39440

Sigma: D8509

Supelco: 4-8016

>>Derivative: Hydrochloride

CAS Registry Number: 5882-44-0

Physical Description: Cryst.

Melting Point: Mp 85-95°

Other Data: Hygroscopic

>>Derivative: Sulfate (2:1)

Physical Description: Cryst.

Melting Point: Mp 80°

>>Derivative: Picrate

Physical Description: Yellow monoclinic cryst.

Melting Point: Mp 163-164°

>>Derivative: *N*-Oxide

CAS Registry Number: 874-52-2

Molecular Formula: C<sub>8</sub>H<sub>11</sub>NO

Molecular Weight: 137.181

Accurate Mass: 137.084064

Percentage Composition: C 70.04%; H 8.08%; N 10.21%; O 11.66%

Physical Description: Slightly yellow hygroscopic cryst. (C<sub>6</sub>H<sub>6</sub>)

Melting Point: Mp 152-153°

References: