

# Chemical Information:

Name: Morpholine, 4,4'-dithiobis-  
CAS No.: 103-34-4 Supplier: Chem Service  
Tox21\_ID No.: Tox21\_201775 Lot No.: 431-14A  
NTP\_CID No.: 2614 MW: 236.35 g/mol

Date of Analysis: 16 April 2010

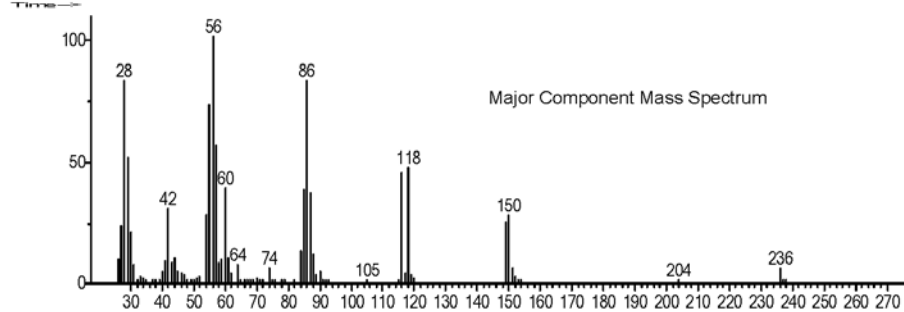
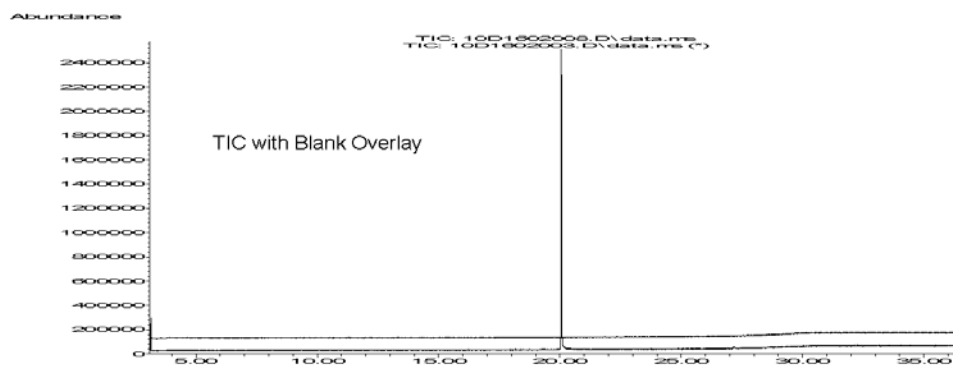
# Purity and Identity Results:

Peak Identity	Retention Time (min)	Purity (% Total Area) <sup>a</sup>
Morpholine, 4,4'-dithiobis-	20.06	100.00

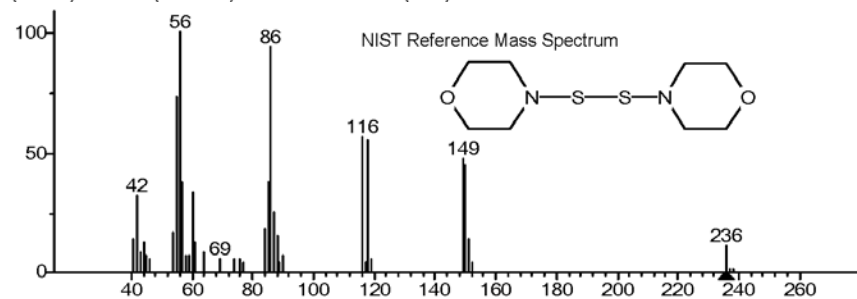
<sup>a</sup> Peaks comprising ≥ 0.5% of total area.

# GC/MS Instrument Parameters:

Instrument / Ionization	Gas Chromatograph with Mass Spectrometer / Electron Impact
Solvent	Dichloromethane (~ 1 mg/mL)
Column	J&W Scientific HP-5MS, 30 m x 0.25 mm ID, 0.25-μm film thickness
Carrier Gas	Helium at 1.0 mL/min
Oven Program	35°C, hold 2 min; ramp @ 10°C/min to 310°C, hold 7 min
Source Temperature	230°C
Auxiliary Temperature	250°C
Scan Range	25 – 500 amu
Injector Temperature	250°C
Injection Volume / Mode	1 μL / Split (100:1)
Data Analysis Software	MSD ChemStation v E.02.00.SP2, and NIST Library v 2.0, build 7/23/2008



(Text File) Scan 3108 (20.042 min): 10D1602008.D\data.ms (-3087)



(replib) 4,4'-Dithiodimorpholine