

Chemical Information:

Name: Butanedioic acid, methylene-
 CAS No.: 97-65-4 Supplier: Sigma-Aldrich
 Tox21_ID No.: Tox21_201299 Lot No.: 12306HH
 NTP_CID No.: 2589 MW: 130.10 g/mol

Date of Analysis: 09 November 2016

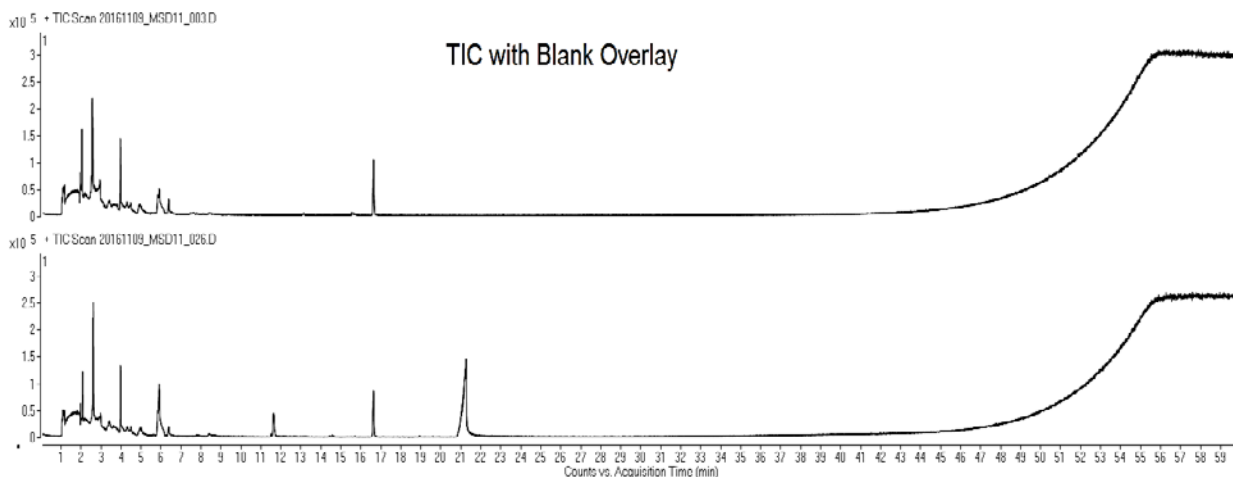
Purity and Identity Results:

Peak Identity	Retention Time (min)	Purity (% Total Area) ^a
unknown	7.81	0.85
unknown	8.40	2.75
1,2-Propadiene-1,3-dione	11.64	9.85
Butanedioic acid, methylene-	21.26	85.29

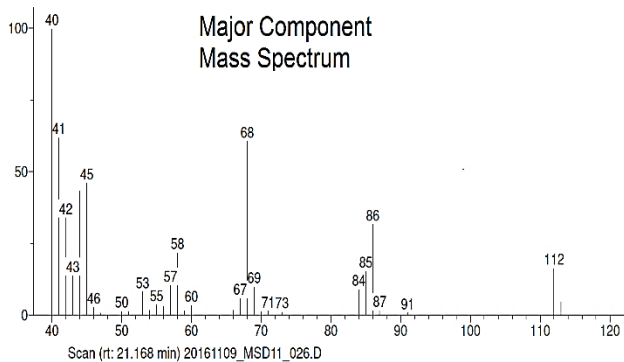
^a Peaks comprising $\geq 0.5\%$ of total area.

GC/MS Instrument Parameters:

Instrument / Ionization	Gas Chromatograph with Mass Spectrometer / Electron Impact
Solvent	Methanol
Column	Rtx-5 MS, 30 m x 0.25 mm ID, 1- μ m film thickness
Carrier Gas	Helium at 1.5 mL/min
Oven Program	50°C, hold 2 min; ramp @ 5°C/min to 315°C, hold 5 min
Source Temperature	230°C
Auxiliary Temperature	250°C
Scan Range	40 – 380 amu
Injector Temperature	250°C
Injection Volume / Mode	1 μ L / Splitless
Data Analysis Software	MassHunter GC/MS Acquisition B.07.02.1938 / MassHunter Qualitative Analysis B.07.00 Build 7.0.7024.0 / NIST Library Version 2.2 Build 2014



Unknown; InLib=143



Hit 1: Butanedioic acid, methylene-
 C5H6O4; MF: 870; RMF: 871; Prob 89.3%; CAS: 97-65-4; Lib: replib; ID: 645.

