

### Chemical Information:

Name: Isobutyraldehyde  
CAS No.: 78-84-2  
Tox21\_ID No.: Tox21\_200024  
NTP\_CID No.: 878

Supplier: Sigma-Aldrich  
Lot No.: 08906HA  
MW: 72.11 g/mol

Date of Analysis: 22 February 2010

### Purity and Identity Results:

Peak Identity	Retention Time (min)	Purity (% Total Area) <sup>a</sup>
Isobutyraldehyde	2.61	61.86
2-Methyl propanoic acid	7.42	5.20
Unknown	11.63	0.73
CHO compound MW > 216	13.11	7.64
Unknown	13.62	0.74
2-Methyl propanal	16.04	21.00
Unknown	16.25	1.40

<sup>a</sup> Peaks comprising  $\geq 0.5\%$  of total area.

### GC/MS Instrument Parameters:

Instrument / Ionization	Gas Chromatograph with Mass Spectrometer / Electron Impact
Solvent	Not applicable
Column	J&W Scientific HP-5MS, 30 m x 0.25 mm ID, 0.25- $\mu$ m film thickness
Carrier Gas	Helium at 1.0 mL/min
Oven Program	-10°C, hold 4 min; ramp @ 10°C/min to 310°C, hold 7 min
Source Temperature	200°C
Auxiliary Temperature	200°C
Scan Range	25 – 500 amu
Injector Temperature	200°C
Injection Volume / Mode	1 $\mu$ L / Split (420:1)
Data Analysis Software	Xcalibur, v 1.2 and NIST Library v 2.0f, build 10/08/2008

