

### Chemical Information:

Name: 2,3-Butanedione  
CAS No.: 431-03-8  
Tox21\_ID No.: Tox21\_201218  
NTP\_CID No.: 130

Supplier: Sigma-Aldrich  
Lot No.: 03798LJ  
MW: 86.09 g/mol

Date of Analysis: 27 May 2009

### Purity and Identity Results:

| Peak Identity   | Retention Time (min) | Purity (% Total Area) <sup>a</sup> |
|-----------------|----------------------|------------------------------------|
| 2,3-Butanedione | 3.92                 | 100.00                             |

<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                 | Methanol (~ 1 mg/mL)   |
| 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            | 35°C, hold 2 min; ramp @ 10°C/min to 310°C, hold 7 min                 |
| Source Temperature      | 250°C  |
| Auxiliary Temperature   | 250°C  |
| Scan Range              | 25 – 500 amu   |
| Injector Temperature    | 250°C  |
| Injection Volume / Mode | 1 $\mu$ L / Split (100:1)  |
| Run Time                | 36.5 minutes   |
| Data Analysis Software  | Xcalibur, v 1.2 and NIST Library v 2.0, build 7/23/2008                |

