North Carolina Department of Environment and Natural Resources
Division of Air Quality

<table>
<thead>
<tr>
<th>CHEMICAL:</th>
<th>Methyl Ethyl Ketone (#49)</th>
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<tbody>
<tr>
<td>TLV - TWA:</td>
<td>200 ppm (590 mg/m³)</td>
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<tr>
<td>TVL - STEL:</td>
<td>300 ppm (885 mg/m³)</td>
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</tbody>
</table>

**Symptoms/Conditions** | **Level** | **Acute/Chronic** | **Reference** | **Comments** |
---|---|---|---|---|
Eye & Nose irritation | 3000 ppm | Acute | D:RIP395 |  |
Slight nose irritation | 100 ppm | Acute | D:R2P395 |  |
Mild eye irritation | 200 ppm |  |  |  |
Low grade intoxication | 300-600 ppm | Acute systemic | D:R3P395 |  |
Eye, nose irritation threshold | -200 ppm |  | D:R6P395 |  |
Fetotoxicity | 1000 ppm | Chronic | R:TXAPA9 | 28,452.74 | Fetotoxic changes in musculoskeletal system Severity = 2 |

**Conclusions**

Acute irritant, acute systemic and chronic toxicant
Starting point 300 ppm (STEL) for acute exposures
200 ppm (TWA) for chronic exposures
Adjustment factors
Acute irritant and systemic 10
Chronic toxicant 10 x 2 (chronic) x 2 (severity)
 x 4 (continuous exposure) = 160
Recommended AAL 30 ppm (15 min.)
1.25 ppm (24 hr)

**Comments**

AAL: 30 ppm (88.5 mg/m³), 15-minute averaging time, 1987
1.25 ppm (3.7 mg/m³), 24-hr averaging time, 1987

*The Environmental Management Commission (EMC) changed the 15-min averaging time to 1-hr averaging time in 1997.*

D: Documentation of Threshold Limit Values, 1986 (R: reference, P: page)
R: Registry of Toxic Effects of Chemical Substances