

# Lubricant (liquid) (o-DCB) Full Analysis Results

Chemical: o-DCB  
Product/Article: Lubricants (non-spray)  
Use Environment: Outside  
Scenario Description/Notes: Not provided

## Lubricant (liquid) (o-DCB): Combined Analysis Results

| Receptor      | Inhalation                      |                                            | Ingestion                       |                                            | Dermal                          |                                            | Total                           |                                            |
|---------------|---------------------------------|--------------------------------------------|---------------------------------|--------------------------------------------|---------------------------------|--------------------------------------------|---------------------------------|--------------------------------------------|
|               | Acute<br>Dose Rate<br>(mg/kg/d) | Chronic Average<br>Daily Dose<br>(mg/kg/d) | Acute<br>Dose Rate<br>(mg/kg/d) | Chronic Average<br>Daily Dose<br>(mg/kg/d) | Acute<br>Dose Rate<br>(mg/kg/d) | Chronic Average<br>Daily Dose<br>(mg/kg/d) | Acute<br>Dose Rate<br>(mg/kg/d) | Chronic Average<br>Daily Dose<br>(mg/kg/d) |
| Lifetime_LADD | 0.00E+00                        | 4.14E-05                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 4.14E-05                                   |
| Adult         | 2.76E-04                        | 4.09E-05                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 0.00E+00                                   | 2.76E-04                        | 4.09E-05                                   |
| Youth2        | 3.44E-04                        | 5.08E-05                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 0.00E+00                                   | 3.44E-04                        | 5.08E-05                                   |
| Youth1        | 4.02E-04                        | 5.96E-05                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 0.00E+00                                   | 4.02E-04                        | 5.96E-05                                   |
| Child2        | 1.67E-04                        | 2.34E-05                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 0.00E+00                                   | 1.67E-04                        | 2.34E-05                                   |
| Child1        | 2.40E-04                        | 3.36E-05                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 0.00E+00                                   | 2.40E-04                        | 3.36E-05                                   |
| Infant2       | 2.96E-04                        | 4.13E-05                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 0.00E+00                                   | 2.96E-04                        | 4.13E-05                                   |
| Infant1       | 3.14E-04                        | 4.39E-05                                   | 0.00E+00                        | 0.00E+00                                   | 0.00E+00                        | 0.00E+00                                   | 3.14E-04                        | 4.39E-05                                   |

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## Lubricant (liquid) (o-DCB): Inhalation Results

### Chronic Inhalation Results:

| Receptor | Background Chronic Dose (mg/kg/d) | Chronic Dose (mg/day) | Chronic ADD (mg/kg/d) | Chronic ADC Zone 1 (mg/m3) | Chronic |
|----------|-----------------------------------|-----------------------|-----------------------|----------------------------|---------|
| Adult    | 0.00E+00                          | 3.27E-03              | 4.09E-05              | 2.23E-04                   |         |
| Youth2   | 0.00E+00                          | 3.64E-03              | 5.08E-05              | 2.23E-04                   |         |
| Youth1   | 0.00E+00                          | 3.38E-03              | 5.96E-05              | 2.23E-04                   |         |
| Child2   | 0.00E+00                          | 7.44E-04              | 2.34E-05              | 6.20E-05                   |         |
| Child1   | 0.00E+00                          | 6.25E-04              | 3.36E-05              | 6.20E-05                   |         |
| Infant2  | 0.00E+00                          | 5.21E-04              | 4.13E-05              | 6.20E-05                   |         |
| Infant1  | 0.00E+00                          | 3.42E-04              | 4.39E-05              | 6.20E-05                   |         |

Time to background concentration- chronic (hr):

### Acute Inhalation Results:

| Receptor | Background ADR (mg/kg/d) | Peak Dose (mg/day) | ADR (mg/kg/d) | Peak Conc. (mg/m3) |
|----------|--------------------------|--------------------|---------------|--------------------|
| Adult    | 0.00E+00                 | 2.21E-02           | 2.76E-04      | 3.69E-02           |
| Youth2   | 0.00E+00                 | 2.46E-02           | 3.44E-04      | 3.69E-02           |
| Youth1   | 0.00E+00                 | 2.28E-02           | 4.02E-04      | 3.69E-02           |
| Child2   | 0.00E+00                 | 5.32E-03           | 1.67E-04      | 1.13E-02           |
| Child1   | 0.00E+00                 | 4.47E-03           | 2.40E-04      | 1.13E-02           |
| Infant2  | 0.00E+00                 | 3.72E-03           | 2.96E-04      | 1.13E-02           |
| Infant1  | 0.00E+00                 | 2.45E-03           | 3.14E-04      | 1.13E-02           |

Time to background concentration- acute (hr):

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## Lubricant (liquid) (o-DCB): Ingestion Results

### Chronic Ingestion Results:

| Receptor | Chronic ADD (mg/kg/d) |
|----------|-----------------------|
| Adult    | 0.00E+00              |
| Youth2   | 0.00E+00              |
| Youth1   | 0.00E+00              |
| Child2   | 0.00E+00              |
| Child1   | 0.00E+00              |
| Infant2  | 0.00E+00              |
| Infant1  | 0.00E+00              |

### Acute Ingestion Results:

| Receptor | ADR (mg/kg/d) |
|----------|---------------|
| Adult    | 0.00E+00      |
| Youth2   | 0.00E+00      |
| Youth1   | 0.00E+00      |
| Child2   | 0.00E+00      |
| Child1   | 0.00E+00      |
| Infant2  | 0.00E+00      |
| Infant1  | 0.00E+00      |

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## Lubricant (liquid) (o-DCB): Dermal Results

### Chronic Dermal Results:

| Receptor | Applied to Skin Chronic<br>ADD (mg/kg/d) | Skin Contact Chronic<br>ADD (mg/kg/d) | Vapor to Skin Chronic<br>ADD (mg/kg/d) | Total Chronic Dermal<br>ADD (mg/kg/d) |
|----------|------------------------------------------|---------------------------------------|----------------------------------------|---------------------------------------|
| Adult    | 0.00E+00                                 | 0.00E+00                              | 0.00E+00                               | 0.00E+00                              |
| Youth2   | 0.00E+00                                 | 0.00E+00                              | 0.00E+00                               | 0.00E+00                              |
| Youth1   | 0.00E+00                                 | 0.00E+00                              | 0.00E+00                               | 0.00E+00                              |
| Child2   | 0.00E+00                                 | 0.00E+00                              | 0.00E+00                               | 0.00E+00                              |
| Child1   | 0.00E+00                                 | 0.00E+00                              | 0.00E+00                               | 0.00E+00                              |
| Infant2  | 0.00E+00                                 | 0.00E+00                              | 0.00E+00                               | 0.00E+00                              |
| Infant1  | 0.00E+00                                 | 0.00E+00                              | 0.00E+00                               | 0.00E+00                              |

### Acute Dermal Results:

| Receptor | Applied to Skin<br>ADR (mg/kg/d) | Skin Contact<br>ADR (mg/kg/d) | Vapor to Skin<br>ADR (mg/kg/d) | Total Acute Dermal<br>ADR (mg/kg/d) |
|----------|----------------------------------|-------------------------------|--------------------------------|-------------------------------------|
| Adult    | 0.00E+00                         | 0.00E+00                      | 0.00E+00                       | 0.00E+00                            |
| Youth2   | 0.00E+00                         | 0.00E+00                      | 0.00E+00                       | 0.00E+00                            |
| Youth1   | 0.00E+00                         | 0.00E+00                      | 0.00E+00                       | 0.00E+00                            |
| Child2   | 0.00E+00                         | 0.00E+00                      | 0.00E+00                       | 0.00E+00                            |
| Child1   | 0.00E+00                         | 0.00E+00                      | 0.00E+00                       | 0.00E+00                            |
| Infant2  | 0.00E+00                         | 0.00E+00                      | 0.00E+00                       | 0.00E+00                            |
| Infant1  | 0.00E+00                         | 0.00E+00                      | 0.00E+00                       | 0.00E+00                            |

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## CEM Scenario Summary

### Scenario Name and Definition

Scenario: Lubricant (liquid) (o-DCB)  
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Scenario Description/notes:

### Models

|                                             |          |                                                                                 |
|---------------------------------------------|----------|---------------------------------------------------------------------------------|
| Models for the Selected Product or Article: | VOC      | E1: Emission from Product Applied to a Surface Indoors Incremental Source Model |
|                                             |          | P_INH1: Calculation of Inhalation Dose from Product Usage                       |
|                                             |          | P_INH2: Calculation of Inhalation Dose from Product Usage: Near-field Option    |
|                                             | SVOC/VOC | P_DER2a: Dermal Dose from Product Applied to Skin, Fraction Absorbed Model      |
|                                             | SVOC/VOC | P_DER2b: Dermal Dose from Product Applied to Skin, Permeability Model           |

### Additional Product Options

Product Users: ☒ Adult ☒ Youth ☐ Child  
Activity Pattern: ☒ SAH ☐ Part-time ☐ Full-time  
Use a User Defined Emission Rate? ☒ Let CEM Define Emission Rate ☐ Use a User-Defined Emission Rate  
Dermal Absorption or Permeability? ☐ Absorption Fraction Method ☒ Permeability Method  
Use Near Field Zone? ☒ Do Not Use Near Field in Zone 1 ☐ Use Near Field in Zone 1

### Inputs

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| Location                                 | Required Input                              | Value     |
|------------------------------------------|---------------------------------------------|-----------|
| 1. Scenario                              | Background Air Concentration (mg/m3)        | 0.00E+00  |
| 1. Scenario                              | Weight Fraction of Chemical (-)             | 5.00E-03  |
| 2. Inputs; a. Chemical Properties        | Gas Phase Mass Transfer Coefficient (m/hr)  | 2.55E+00  |
| 2. Inputs; a. Chemical Properties        | Log Octanol-water partition coefficient (-) | 3.38E+00  |
| 2. Inputs; a. Chemical Properties        | Molecular Weight (g/mol)                    | 1.47E+02  |
| 2. Inputs; a. Chemical Properties        | Saturation Concentration in Air (mg/m3)     | 1.07E+04  |
| 2. Inputs; a. Chemical Properties        | Vapor Pressure (torr)                       | 1.35E+00  |
| 2. Inputs; b. Product/Article Properties | Density of Product/Article (g/cm3)          | 9.00E-01  |
| 2. Inputs; b. Product/Article Properties | Duration of Use - Acute (min)               | 1.00E+01  |
| 2. Inputs; b. Product/Article Properties | Duration of Use - Chronic (min)             | 5.00E+00  |
| 2. Inputs; b. Product/Article Properties | Frequency of Use - Acute (events/day)       | 1.00E+00  |
| 2. Inputs; b. Product/Article Properties | Frequency of Use - Chronic (events/year)    | 5.20E+01  |
| 2. Inputs; b. Product/Article Properties | Mass of product used - acute (g/use)        | 1.06E+02  |
| 2. Inputs; b. Product/Article Properties | Mass of product used - chronic (g/use)      | 1.06E+02  |
| 2. Inputs; b. Product/Article Properties | Product Dilution Fraction (-)               | 1.00E+00  |
| 2. Inputs; b. Product/Article Properties | Skin Permeability Coefficient (cm/hr)       | 5.20E-02  |
| 2. Inputs; c. Environment Inputs         | Air Exchange Rate, Zone 1 (per hour)        | 4.50E-01  |
| 2. Inputs; c. Environment Inputs         | Air Exchange Rate, Zone 2 (per hour)        | 0.00E+00  |
| 2. Inputs; c. Environment Inputs         | Building Volume (m3)                        | 1.00E+100 |
| 2. Inputs; c. Environment Inputs         | Interzone Ventilation Rate (m3/hr)          | 1.00E-30  |
| 2. Inputs; c. Environment Inputs         | Use Environment Volume (m3)                 | 4.92E+02  |

## Exposure Factors

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Use Environment: Outside

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| Receptor                | Body Weight | Inhalation After Use | Inhalation During Use | Surface Area to Body Weight |
|-------------------------|-------------|----------------------|-----------------------|-----------------------------|
| Youth (11-15 years)     | 56.8        | 0.63                 | 0.78                  | 6.34                        |
| Child (6-10 years)      | 31.8        | 0.5                  | 0.66                  | 8.02                        |
| Small Child (3-5 years) | 18.6        | 0.42                 | 0.66                  | 9.95                        |
| Infant (1-2 years)      | 12.6        | 0.35                 | 0.72                  | 11.51                       |
| Infant (<1 year)        | 7.8         | 0.23                 | 0.46                  | 13.46                       |
| Adult (≥21 years)       | 80          | 0.61                 | 0.74                  | 6.19                        |
| Youth (16-20 years)     | 71.6        | 0.68                 | 0.72                  | 5.8                         |

Notes: body weight = kg; dust ingestion rate = mg/day; inhalation rate after use = m3/hr; inhalation rate during use = m3/hr; surface area to body weight ratio = m2/kg; transfer coefficient = cm2/hr

| Receptor                | Exposure Duration - Chronic | Exposure Duration - Acute | Avg Time - Chronic | Avg Time - Acute |
|-------------------------|-----------------------------|---------------------------|--------------------|------------------|
| Youth (11-15 years)     | 1                           | 1                         | 1                  | 1                |
| Child (6-10 years)      | 1                           | 1                         | 1                  | 1                |
| Small Child (3-5 years) | 1                           | 1                         | 1                  | 1                |
| Infant (1-2 years)      | 1                           | 1                         | 1                  | 1                |
| Infant (<1 year)        | 1                           | 1                         | 1                  | 1                |
| Adult (≥21 years)       | 1                           | 1                         | 1                  | 1                |
| Youth (16-20 years)     | 1                           | 1                         | 1                  | 1                |

Notes: averaging time - chronic = years; averaging time - acute = days; exposure duration - chronic = years; averaging time - acute = days