



# Data Extraction Information for General Population, Consumer, and Environmental Exposure for 1,3-Butadiene

# **Systematic Review Support Document for the Draft Risk Evaluation**

CASRN: 106-99-0

November 2024

This supplemental file contains information regarding the data extraction results for data sources that met the PECO screening criteria for the *Draft Systematic Review Protocol for 1,3-Butadiene*. EPA performs data extraction as part of the TSCA systematic review process described in the *Draft Systematic Review Protocol Supporting TSCA Risk Evaluations for Chemical Substances*. The systematic review steps are further described in the *Draft Systematic Review Protocol for 1,3-Butadiene*.

EPA conducted data quality evaluation and extraction based on author-reported descriptions and results; additional analyses (e.g., statistical analyses) potentially conducted by EPA are not contained in this supplemental file. The data extraction results herein are organized by evidence streams and media types. A reference may contain data for multiple evidence streams and/or media types and will be cited in different tables if appropriate. The media type "All Applicable Media" refers to modeled doses or intakes calculated from human biomonitoring data (e.g., urine, blood, etc.) or when the media specific to the modeled route (e.g., inhalation, oral, etc.) are not clearly defined. In the data extraction results, "POINT VALUE(S)" denotes when the author(s) did not report a minimum, maximum, mean, or any other summary statistics, but rather single reported level(s) (e.g., chemical concentration). Summary statistic values that were less than the analytical limit were substituted with "0," "ND," "<LOD," and "<LOQ," as reported by the study. For further details about extraction criteria, review the *Draft Systematic Review Protocol for 1,3-Butadiene*.

Acronyms and abbreviations used within this supplemental file are defined in the table at the end of this file. The two letter country codes defined herein are consistent with those used in the searchable International Standardization Organization (ISO) 3166 standard for country codes. Finally, "NR" preceding a country code indicates that the author(s) did not report the city, state and region. This supplemental file may also be referred to as 1,3-Butadiene Data Extraction Information for General Population, Consumer, and Environmental Exposure.

# **Table of Contents**

ab	e Number Table Name	Page
	Monitoring Studies	
1	Data Extraction Tables of Exposure Monitoring Studies for Ambient Air	4
2	Data Extraction Tables of Exposure Monitoring Studies for Indoor Air	5
3	Data Extraction Tables of Exposure Monitoring Studies for Ambient Air  Data Extraction Tables of Exposure Monitoring Studies for Indoor Air  Data Extraction Tables of Exposure Monitoring Studies for Personal Inhalation	6
	Experimental Studies	
4	Data Extraction Tables of Exposure Experimental Studies for Other  Data Extraction Tables of Exposure Experimental Studies for Consumer Products	7
5	Data Extraction Tables of Exposure Experimental Studies for Consumer Products	8
	Modeling Studies	
6	Data Extraction Tables of Exposure Modeling Studies for Ambient Air	11
7	Data Extraction Tables of Exposure Modeling Studies for Ambient Air  Data Extraction Tables of Exposure Modeling Studies for Indoor Air  Data Extraction Tables of Exposure Modeling Studies for Sediment	12
8	Data Extraction Tables of Exposure Modeling Studies for Sediment	13
9	Data Extraction Tables of Exposure Modeling Studies for Soil	14
10	Data Extraction Tables of Exposure Modeling Studies for Soil	15
1	Glossary of Select Terms for Data Extraction	16

1,3-Butadiene Monitoring Ambient Air

Table 1: Data Extraction Tables of Exposure Monitoring Studies for Ambient Air

Citation Information	Site and Data Description	Limit (LOD/LOQ)	Min	Max	Mean	Percentile	Variance
Zhou et al. 2011 <b>HERO ID:</b> 1255292 * <i>OQD</i> : Medium	Tianjin, China, CN Scenario: Residential outdoor air in Tianjin (n = 8; DF = NR; Sampling Period: May, 2008)	LOD: Not Reported LOQ: Not Reported	NR	NR	0.36 µg/m <sup>3</sup> (AM)	NR	$0.63 \ \mu\text{g/m}^3$ (ASD)
U.S. EPA et al. 2015 <b>HERO ID:</b> 5113338* <i>OQD</i> : High	Counties in US, US Scenario: Ambient air from nationwide network background sampling (n = 121; DF = >0; Sampling Period: 2010 - 2012)	LOD: Not Reported LOQ: Not Reported	0.002 µg/m <sup>3</sup>	NR	0.0063 µg/m <sup>3</sup> (AM)	10th: 0.002 μg/m³; 25th: 0.002 μg/m³; 50th: 0.002 μg/m³;	NR

<sup>\*</sup> Reference is a completed exposure assessment and risk characterization that was evaluated using the completed exposure assessment and risk characterization data quality criteria. Depending on the type of data the reference contains, primary or secondary data from completed exposure assessments or risk characterizations may be extracted using the template(s) for monitoring, modeling, and/or experimental data and are grouped with other data from the applicable evidence stream(s).

1,3-Butadiene Monitoring Indoor Air

Table 2: Data Extraction Tables of Exposure Monitoring Studies for Indoor Air

Citation Information	Site and Data Description	Limit (LOD/LOQ)	Min	Max	Mean	Percentile	Variance
Sax et al. 2006 <i>HERO ID:</i> 156950* <i>OQD:</i> High	New York City, NY, US Scenario: Indoor air in residences of New York City teens (n = 41; DF = 0.65; Sampling Period: Feb., 1999 - Oct., 2000)	LOD: 1 µg/m³ LOQ: Not Reported	NR	9.02 μg/m <sup>3</sup>	1.01 µg/m <sup>3</sup> (AM)	50th: <lod;< td=""><td>NR</td></lod;<>	NR
Sax et al. 2006 <b>HERO ID:</b> 156950* <i>OQD:</i> High	Los Angeles, CA, US Scenario: Indoor air in residences of Los Angeles teens (n = 40; DF = 0.68; Sampling Period: Feb., 1999 - Oct., 2000)	LOD: 1 µg/m <sup>3</sup> LOQ: Not Reported	NR	1.47 μg/m <sup>3</sup>	<lod< td=""><td>50th: <lod;< td=""><td>NR</td></lod;<></td></lod<>	50th: <lod;< td=""><td>NR</td></lod;<>	NR
Zhou et al. 2011 <i>HERO ID:</i> 1255292* <i>OQD:</i> Medium	Tianjin, China, CN Scenario: Residential indoor air in Tianjin (n = 10; DF = 0.875; Sampling Period: May, 2008)	LOD: Not Reported LOQ: Not Reported	NR	NR	0.54 µg/m <sup>3</sup> (AM)	NR	$0.3 \ \mu g/m^3$ (ASD)
Zhou et al. 2011 <b>HERO ID:</b> 1255292 * <i>OQD:</i> Medium	Tianjin, China, CN Scenario: Office indoor air in Tianjin (n = 6; DF = NR; Sampling Period: May, 2008)	LOD: Not Reported LOQ: Not Reported	NR	NR	0.25 μg/m <sup>3</sup> (AM)	NR	$0.11 \ \mu g/m^3$ (ASD)
Zhou et al. 2011 <b>HERO ID:</b> 1255292* <i>OQD:</i> Medium	Tianjin, China, CN Scenario: Vehicle indoor air in Tianjin (n = 6; DF = NR; Sampling Period: May, 2008)	LOD: Not Reported LOQ: Not Reported	NR	NR	$0.62 \mu \text{g/m}^3 \text{(AM)}$	NR	0.34 μg/m <sup>3</sup> (ASD)

<sup>\*</sup> Reference is a completed exposure assessment and risk characterization that was evaluated using the completed exposure assessment and risk characterization data quality criteria. Depending on the type of data the reference contains, primary or secondary data from completed exposure assessments or risk characterizations may be extracted using the template(s) for monitoring, modeling, and/or experimental data and are grouped with other data from the applicable evidence stream(s).

1,3-Butadiene Monitoring Personal Inhalation

Table 3: Data Extraction Tables of Exposure Monitoring Studies for Personal Inhalation

Citation Information	Site and Data Description	Limit (LOD/LOQ)	Min	Max	Mean	Percentile	Variance
Sax et al. 2006 <b>HERO ID:</b> 156950* OQD: High	New York City, NY, US Scenario: Personal inhalation of New York City teens (n = 41; DF = 0.61; Sampling Period: Feb., 1999 - Oct., 2000)	LOD: 1 µg/m <sup>3</sup> LOQ: Not Reported	ND	5.25 μg/m <sup>3</sup>	<lod< td=""><td>50th: <lod;< td=""><td>1.15 μg/m<sup>3</sup> (ASD)</td></lod;<></td></lod<>	50th: <lod;< td=""><td>1.15 μg/m<sup>3</sup> (ASD)</td></lod;<>	1.15 μg/m <sup>3</sup> (ASD)
Sax et al. 2006 <b>HERO ID:</b> 156950* OQD: High	Los Angeles, CA, US Scenario: Personal samling of Los Angeles teens (n = 40; DF = 0.8; Sampling Period: Feb., 1999 - Oct., 2000)	LOD: 1 µg/m³ LOQ: Not Reported	ND	$\frac{1.89}{\mu \text{g/m}^3}$	<lod< td=""><td>50th: <lod;< td=""><td><lod< td=""></lod<></td></lod;<></td></lod<>	50th: <lod;< td=""><td><lod< td=""></lod<></td></lod;<>	<lod< td=""></lod<>
Zhou et al. 2011 <i>HERO ID:</i> 1255292 * <i>OQD:</i> Medium	Tianjin, China, CN Scenario: Measured personal air from Tianjin residents (n = 10; DF = 0.875; Sampling Period: May, 2008)	LOD: Not Reported LOQ: Not Reported	NR	NR	$0.67$ $\mu g/m^3$ (AM)	NR	$0.7 \ \mu \text{g/m}^3$ (ASD)
Zhou et al. 2011 <b>HERO ID:</b> 1255292 * <i>OQD:</i> Medium	Tianjin, China, CN Scenario: Estimated time weighted average personal air from Tianjin residents (n = 10; DF = NR; Sampling Period: May, 2008)	LOD: Not Reported LOQ: Not Reported	NR	NR	0.15 µg/m <sup>3</sup> (AM)	NR	0.04 μg/m <sup>3</sup> (ASD)

<sup>\*</sup> Reference is a completed exposure assessment and risk characterization that was evaluated using the completed exposure assessment and risk characterization data quality criteria. Depending on the type of data the reference contains, primary or secondary data from completed exposure assessments or risk characterizations may be extracted using the template(s) for monitoring, modeling, and/or experimental data and are grouped with other data from the applicable evidence stream(s).

1,3-Butadiene Experimental Other

## Table 4: Data Extraction Tables of Exposure Experimental Studies for Other

Citation Information	Site and Data Description	Limit (LOD/LOQ)	Min	Max	Mean	Percentile	Variance
Sallsten et al. 2006 HERO ID: 97958 OQD: Medium	SE (Testing Location) Scenario: Concentration of chemical 1 in personal and stationary environments during wood burning session 1 (n = 5; DF = 1)	LOD: Not Reported LOQ: Not Reported	NR	NR	NR	50th: 6.3 μg/m <sup>3</sup> ;	NR
Sallsten et al. 2006 HERO ID: 97958 OQD: Medium	SE (Testing Location) Scenario: Concentration of chemical 1 in personal and stationary environments during wood burning session 2 (n = 5; DF = 1)	LOD: Not Reported LOQ: Not Reported	NR	NR	NR	50th: 3.9 μg/m <sup>3</sup> ;	NR

1,3-Butadiene Experimental Consumer Products

Table 5: Data Extraction Tables of Exposure Experimental Studies for Consumer Products

Citation Information	Site and Data Description	Limit (LOD/LOQ)	Min	Max	Mean	Percentile	Variance		
Carteret et al. 2012 HERO ID: 1290538 OQD: Medium	FR (Product source) Scenario: Measured emission factor, chemical 2 emitted from wick kerosene space heater, fuel 1 (n = 1; DF = 1)	LOD: Not Reported LOQ: Not Reported	NR	NR	4 μg/g (AM)	NR	NR		
Carteret et al. 2012 HERO ID: 1290538 OQD: Medium	FR (Product source) Scenario: Measured emission factor, chemical 2 emitted from wick kerosene space heater, fuel 3 (n = 1; DF = 1)	LOD: Not Reported LOQ: Not Reported	NR	NR	4.8 μg/g (AM)	NR	NR		
Carteret et al. 2012 HERO ID: 1290538 OQD: Medium	FR (Product source) Scenario: Measured emission factor, chemical 2 emitted from injection kerosene space heater, fuel 4 (n = 1; DF = 1)	LOD: Not Reported LOQ: Not Reported	NR	NR	1.8 µg/g (AM)	NR	NR		
Carteret et al. 2012 HERO ID: 1290538 OQD: Medium	FR (Product source) Scenario: Measured concentration, chemical 2 emitted from wick kerosene space heater, fuel 1 (n = 1; DF = 1)	LOD: Not Reported LOQ: Not Reported	NR	NR	5.02 ppb (AM)	NR	NR		
Carteret et al. 2012 HERO ID: 1290538 OQD: Medium	FR (Product source) Scenario: Measured concentration, chemical 2 emitted from injection kerosene space heater, fuel 4 (n = 1; DF = 1)	LOD: Not Reported LOQ: Not Reported	NR	NR	1.1 ppb (AM)	NR	NR		
Carteret et al. 2012 <b>HERO ID:</b> 1290538 <i>OQD:</i> Medium	FR (Product source) Scenario: Measured concentration, chemical 2 emitted from wick kerosene space heater, fuel 3 (n = 1; DF = 1)	LOD: Not Reported LOQ: Not Reported	NR	NR	6.16 ppb (AM)	NR	NR		
Lee et al. 1997 <b>HERO ID:</b> 2529910 <i>OQD</i> : High	Research Triangle Park, NC, US (Testing Location) Scenario: Measured concentration from test 1 of untreated wood waste for fuel burning (n = 3; DF = NR)	LOD: Not Reported LOQ: Not Reported	POINT VALUE(S): [0.6 μg/dscm]						
Lee et al. 1997 <b>HERO ID:</b> 2529910 <i>OQD</i> : High	Research Triangle Park, NC, US (Testing Location) Scenario: Measured concentration from test 2 of untreated wood waste for fuel burning (n = 3; DF = NR)	LOD: Not Reported LOQ: Not Reported	POINT VALUE(S): [0.2 μg/dscm]						
Lee et al. 1997 <b>HERO ID:</b> 2529910 <i>OQD</i> : High	Research Triangle Park, NC, US (Testing Location) Scenario: Measured concentration from test 3 of untreated wood waste for fuel burning (n = 3; DF = NR)	LOD: Not Reported LOQ: Not Reported		POINT	VALUE(S): [1	.2 μg/dscm]			
Lee et al. 1997 <b>HERO ID:</b> 2529910 <i>OQD</i> : High	Research Triangle Park, NC, US (Testing Location) Scenario: Measured concentration from test 1 of treated wood waste for fuel burning (n = 3; DF = NR)	LOD: Not Reported LOQ: Not Reported		POINT	VALUE(S): [0	.1 μg/dscm]			
	Continu	  ed on next page							

Continued on next page ...

1,3-Butadiene Experimental Consumer Products

Table 5 – continued from previous page

Citation Information	Site and Data Description	Limit (LOD/LOQ)	Min	Max	Mean	Percentile	Variance
Lee et al. 1997 <b>HERO ID:</b> 2529910 <i>OQD</i> : High	Research Triangle Park, NC, US (Testing Location) Scenario: Measured concentration from test 2 of treated wood waste for fuel burning (n = 3; DF = NR)	LOD: Not Reported LOQ: Not Reported		POINT	VALUE(S): [0	.1 μg/dscm]	
Lee et al. 1997 <b>HERO ID:</b> 2529910 OQD: High	Research Triangle Park, NC, US (Testing Location) Scenario: Measured concentration from test 3 of treated wood waste for fuel burning (n = 3; DF = NR)	LOD: Not Reported LOQ: Not Reported		POINT	VALUE(S): [0	.1 μg/dscm]	
Abe et al. 2014 <b>HERO ID:</b> 2857233 <i>OQD:</i> Medium	JP (Product source) Scenario: Measured concentration in ABS1 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025 µg/g	NR	NR	0.59 μg/g (AM)	NR	NR
Abe et al. 2014 <b>HERO ID:</b> 2857233  OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS2 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025	NR	NR	0.69 μg/g (AM)	NR	NR
Abe et al. 2014 <b>HERO ID:</b> 2857233 OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS3 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025 µg/g	NR	NR	0.1 μg/g (AM)	NR	NR
Abe et al. 2014 HERO ID: 2857233 OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS4 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025 µg/g	NR	NR	0.39 μg/g (AM)	NR	NR
Abe et al. 2014 HERO ID: 2857233 OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS5 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025	NR	NR	0.97 μg/g (AM)	NR	NR
Abe et al. 2014 HERO ID: 2857233 OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS6 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025 µg/g	NR	NR	1.2 μg/g (AM)	NR	NR
Abe et al. 2014 HERO ID: 2857233 OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS7 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025 µg/g	NR	NR	0.2 μg/g (AM)	NR	NR
Abe et al. 2014 HERO ID: 2857233 OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS8 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025	NR	NR	0.21 μg/g (AM)	NR	NR
Abe et al. 2014 HERO ID: 2857233 OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS9 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025	NR	NR	0.36 μg/g (AM)	NR	NR
Abe et al. 2014 <b>HERO ID:</b> 2857233 OQD: Medium	JP (Product source) Scenario: Measured concentration in ABS10 Kitchen Utensil (n = 2; DF = 1)	LOD: Not Reported LOQ: 0.025 µg/g	NR	NR	0.79 μg/g (AM)	NR	NR

Continued on next page ...

1,3-Butadiene Experimental Consumer Products

#### Table 5 – continued from previous page

Citation Information	Site and Data Description	Limit (LOD/LOQ)	Min	Max	Mean	Percentile	Variance
Abe et al. 2014	JP (Product source)	LOD: Not	NR	NR	0.73	NR	NR
HERO ID: 2857233	Scenario: Measured concentration in ABS11 Kitchen Utensil	Reported			μg/g		
OQD: Medium	(n = 2; DF = 1)	LOQ: 0.025			(AM)		
		μg/g					
Abe et al. 2014	JP (Product source)	LOD: Not	NR	NR	1.3 μg/g	NR	NR
HERO ID: 2857233	Scenario: Measured concentration in ABS12 Kitchen Utensil	Reported			(AM)		
OQD: Medium	(n = 2; DF = 1)	LOQ: 0.025					
		μg/g					
Abe et al. 2014	JP (Product source)	LOD: Not	NR	NR	1.7 μg/g	NR	NR
HERO ID: 2857233	Scenario: Measured concentration in ABS13 Kitchen Utensil	Reported			(AM)		
OQD: Medium	(n = 2; DF = 1)	LOQ: 0.025					
		μg/g					
Abe et al. 2014	JP (Product source)	LOD: Not	NR	NR	0.06	NR	NR
HERO ID: 2857233	Scenario: Measured concentration in ABS14 Kitchen Utensil	Reported			μg/g		
OQD: Medium	(n = 2; DF = 1)	LOQ: 0.025			(AM)		
		μg/g					
Abe et al. 2014	JP (Product source)	LOD: Not	NR	NR	0.62	NR	NR
HERO ID: 2857233	Scenario: Measured concentration in ABS15 Kitchen Utensil	Reported			μg/g		
OQD: Medium	(n = 2; DF = 1)	LOQ: 0.025			(AM)		
		μg/g					

1,3-Butadiene Modeling Ambient Air

Table 6: Data Extraction Tables of Exposure Modeling Studies for Ambient Air

Citation Information	Site and Data Description	Min	Max	Mean	Percentile	Variance
Suzuki et al. 2004 <i>HERO ID: 198786</i> <i>OQD:</i> High	JP (Modeled Location) Scenario: Modeled ambient air concentration	1 percentile	: 0.000011 μg/m <sup>3</sup> ; Expos 0.14	sure Weighted A  µg/m <sup>3</sup>	Averaged Concentration:	
Loh et al. 2007 <b>HERO ID:</b> 632519 * <i>OQD</i> : High	US (Modeled Location) Scenario: Concentration distribution in nongrocery ambient air	NR	NR	0.2 μg/m <sup>3</sup> (GM)	NR	3.4 μg/m <sup>3</sup> (GSD)
Loh et al. 2007 <b>HERO ID:</b> 632519 * OQD: High	US (Modeled Location) Scenario: Concentration distribution in outdoor/other ambient air	NR	NR	0.1 μg/m <sup>3</sup> (GM)	NR	3.6 μg/m <sup>3</sup> (GSD)
Yu et al. 2016 <b>HERO ID:</b> 3276086 <i>OQD</i> : High	Hillsborough County, FL, US (Modeled Location) Scenario: Modeled ambient air concentration, annual average		1%: 0.00	317 μg/m <sup>3</sup>		
Radian Engineering et al. 1997 HERO ID: 5665035 OQD: Medium	Ontario, CA, US (Modeled Location) Scenario: Modeled ambient air concentration in residential MEI around GE facility, hourly	NR	$0.21 \ \mu \text{g/m}^3$	NR	NR	NR
Radian Engineering et al. 1997 HERO ID: 5665035 OQD: Medium	Ontario, CA, US (Modeled Location) Scenario: Modeled ambient air concentration in residential MEI around GE facility, annual	NR	NR	0.000014 µg/m <sup>3</sup> (AM)	NR	NR
Radian Engineering et al. 1997 HERO ID: 5665035 OQD: Medium	Ontario, CA, US (Modeled Location) Scenario: Modeled ambient air concentration in commercial MEI around GE facility, hourly	NR	$5.2 \mu\mathrm{g/m}^3$	NR	NR	NR
Radian Engineering et al. 1997 HERO ID: 5665035 OQD: Medium	Ontario, CA, US (Modeled Location) Scenario: Modeled ambient air concentration in commercial MEI around GE facility, annual	NR	NR	0.00086 µg/m <sup>3</sup> (AM)	NR	NR

<sup>\*</sup> Reference is a completed exposure assessment and risk characterization that was evaluated using the completed exposure assessment and risk characterization data quality criteria. Depending on the type of data the reference contains, primary or secondary data from completed exposure assessments or risk characterizations may be extracted using the template(s) for monitoring, modeling, and/or experimental data and are grouped with other data from the applicable evidence stream(s).

1,3-Butadiene Modeling Indoor Air

Table 7: Data Extraction Tables of Exposure Modeling Studies for Indoor Air

Citation Information	Site and Data Description	Min	Max	Mean	Percentile	Variance
Loh et al. 2007 <i>HERO ID:</i> 632519 * <i>OQD:</i> High	US (Modeled Location) Scenario: Concentration distribution in home indoor air	NR	NR	0.3 µg/m <sup>3</sup> (GM)	NR	3.7 μg/m <sup>3</sup> (GSD)
Loh et al. 2007 <b>HERO ID:</b> 632519 * <i>OQD:</i> High	US (Modeled Location) Scenario: Concentration distribution in office indoor air	NR	NR	$0.2 \\ \mu g/m^3 \\ (GM)$	NR	3.4 μg/m <sup>3</sup> (GSD)
Loh et al. 2007 <b>HERO ID:</b> 632519 * <i>OQD</i> : High	US (Modeled Location) Scenario: Concentration distribution in commute indoor air	NR	NR	1.5 µg/m <sup>3</sup> (GM)	NR	2.1 μg/m <sup>3</sup> (GSD)
Loh et al. 2007 <b>HERO ID:</b> 632519 * <i>OQD:</i> High	US (Modeled Location) Scenario: Concentration distribution in dining indoor air	NR	NR	1 μg/m <sup>3</sup> (GM)	NR	6.3 μg/m <sup>3</sup> (GSD)
Loh et al. 2007 <b>HERO ID:</b> 632519 * <i>OQD</i> : High	US (Modeled Location) Scenario: Concentration distribution in grocery indoor air	NR	NR	0.2 μg/m <sup>3</sup> (GM)	NR	3.4 μg/m <sup>3</sup> (GSD)

<sup>\*</sup> Reference is a completed exposure assessment and risk characterization that was evaluated using the completed exposure assessment and risk characterization data quality criteria. Depending on the type of data the reference contains, primary or secondary data from completed exposure assessments or risk characterizations may be extracted using the template(s) for monitoring, modeling, and/or experimental data and are grouped with other data from the applicable evidence stream(s).

1,3-Butadiene Modeling Sediment

# Table 8: Data Extraction Tables of Exposure Modeling Studies for Sediment

Citation Information	Site and Data Description	Min	Max	Mean	Percentile	Variance
Suzuki et al. 2004 <i>HERO ID</i> : 198786 <i>OQD</i> : High	JP (Modeled Location) Scenario: Modeled sediment concentration		1 percentil	le: 0.0000003 ng/	y .	

1,3-Butadiene Modeling Soil

# Table 9: Data Extraction Tables of Exposure Modeling Studies for Soil

Citation Information	Site and Data Description	Min	Max	Mean	Percentile	Variance
Suzuki et al. 2004 <i>HERO ID</i> : 198786 <i>OQD</i> : High	JP (Modeled Location) Scenario: Modeled soil concentration		1 percentile: 0.0	000001 ng/g		

1,3-Butadiene Modeling Surface Water

## Table 10: Data Extraction Tables of Exposure Modeling Studies for Surface Water

Citation Information	Site and Data Description	Min	Max	Mean	Percentile	Variance
Suzuki et al. 2004 <i>HERO ID:</i> 198786 <i>OQD</i> : High	JP (Modeled Location) Scenario: Modeled river concentration		1 percentile:	0.000019 ng/L		

# Glossary of Select Terms for Data Extraction Tables

Table 11: Glossary of Select Terms for Data Extraction

Term	Definition		
ABS	Acrylonitrile Butadiene Styrene resin plastics		
ACC	American Chemistry Council		
ACGIH	American Conference of Governmental Industrial Hygienists		
AEGL	Acute Exposure Guideline Level		
ATSDR	Agency for Toxic Substances and Disease Registry		
BCF	Bioconcentration factor		
CAA	Clean Air Act		
CASRN	Chemical Abstracts Service Registry Number		
CBI	Confidential Business Information		
CCL	Contaminant Candidate List		
CDR	Chemical Data Reporting		
CEPA	Canadian Environmental Protection Act		
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act		
CFR	Code of Federal Regulations		
COU	Condition of Use		
CSCL	Chemical Substances Control Law		
DMR ECB	Discharge Monitoring Report		
1	European Chemicals Bureau		
ECHA	European Chemicals Agency		
EPA	Environmental Protection Agency		
EPCRA	Emergency Planning and Community Right-to-Know Act		
ESD	Emission Scenario Document		
GACT	Generally Available Control Technology		
ECEL	Existing Chemical Exposure Limit		
ERG	Eastern Research Group		
EU	European Union		
EV	Exposure Value		
GS	Generic Scenario		
HAP	Hazardous Air Pollutant		
HEC	Human Equivalent Concentration		
IMAP	Inventory Multi-Tiered Assessment and Prioritization		
IUR	Inhalation Unit Risk		
IRIS	Integrated Risk Information System		
ISHA	Industrial Safety and Health Act		
KOC	Organic Carbon: Water Partition Coefficient		
KOW	Octanol:: Water partition Coefficient		
LCD	Life Cycle Diagram		
MACT	Maximum Achievable Control Technology		
MOA	Mode of Action		
MOE	Margin of Exposure		
NAICS	North American Industry Classification System		
NEI	National Emissions Inventory		
NICNAS	National Industrial Chemicals Notification and Assessment Scheme (Australia)		
NIOSH	National Institute for Occupational Safety and Health		
NPL	National Priorities List		
NPRI	National Pollutant Release Inventory		
NTP	National Toxicology Program		
OCSPP	Office of Chemical Safety and Pollution Prevention		
OECD	Organisation for Economic Co-operation and Development		
OES	Occupational Exposure Scenario		
	Continued on next page		

Continued on next page ...
Page 16 of 17

# Glossary of Select Terms for Data Extraction Tables

#### Table 11 ... continued from previous page

Term	Definition Definition	
ONU	Occupational Non-User	
OPPT	Office of Pollution Prevention and Toxics	
OSHA	Occupational Safety and Health Administration	
PEL	Permissible Exposure Limit	
PECO	Populations, Exposures, Comparators, and Outcomes	
PESS	Potentially Exposed or Susceptible Subpopulations	
POD	Point of Departure	
POTW	Publicly Owned Treatment Works	
PV	Production Volume	
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals (European Union)	
SARA	Superfund Amendments and Reauthorization Act	
SBR	Styrene-Butadiene Rubber	
SDS	Safety Data Sheet	
SDWA	Safe Drinking Water Act	
SRC	Syracuse Research Corporation	
STEL	Short-term Exposure Limit	
TSCA	Toxic Substances Control Act	
TLV	Threshold Limit Value	
TRI	Toxics Release Inventory	
TWA	Time-weighted Average	
UCMR	Unregulated Contaminants Monitoring Rule	
UF	Uncertainty Factor	
VOC	Volatile Organic Compound	
WWT	Waste Water Treatment	