FDEP Biology Laboratory -Toxicology Section
C. dubia SRT Bench Sheet

Test Type	Acute Test Duration	Test Organism:
☐ Screen ☐ Definitive ☐ Static ☐ Flow-through	☐ 48 hours ☐ 96 Hours ☐ ___ Hours	Ceriodaphnia dubia (SOP: TA-07.05 & SOP: TA-07.01) Organism Age: < 24 hrs

Test 1 of 2: ACUTE Start Date:_____ Time:_____ End Date: _____ Time:_____

Organism Batch #: _____

Diluent	Batch #/LIMS ID #	Days Used

Toxicant	Batch #/LIMS ID #	Days Used

Test 2 of 2: CHRONIC Start Date:_____ Time:_____ End Date: _____ Time:_____

Diluent	Batch #/LIMS ID #	Days Used

Toxicant	Batch #/LIMS ID #	Days Used

Test Randomizer:

Replicate	Culture Vial
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Food	Days Used	*C. dubia* fed 0.2 ml of *YCT and and R. *subcapitata* in a 1:1 ratio.
YCT Batch # _____		*YCT= yeast, cereal leaves, and trout chow. **Pipet P1 used for C. dubia feeding.
YCT Batch # _____		
R. subcapitata Batch # _____		Light Intensity: 50-100 ft candles (recommended) Photoperiod: 16 hr light, 8 hr dark (recommended)
R. subcapitata Batch # _____		REVIEWER:_____

Comments:

FDEP Biology Laboratory-Toxicology Section
SRT Water Quality Information Sheet

Water Quality Parameters	MHWCD LIMS ID # _____ Batch # _____	MHWCD LIMS ID # _____ Batch # _____	MHWCD LIMS ID # _____ Batch # _____	SOP	Transcribed By:	Transcription Checked by:
pH (SU)				TA-06.22		
Lab Total Residual Cl_2 (mg/L)				TA-06.22		
Alkalinity (mg/L as $CaCO_3$)				TA-06.08		
Hardness (mg/L as $CaCO_3$)				TA-06.08		
Total Ammonia (mg/L as N)				TA-06.35		
Conductivity (µmhos)				TA-06.36		
Days Used						

Comments:

FDEP Biology Laboratory - Toxicology Section
Acute SRT Information Bench Sheet

Test 1 of 2

Start Date: _____ **Time:** _____

End Date: _____ **Time:** _____

Test Species
Ceriodaphnia dubia **(SOP: TA-07.01)**

Concentrations Prepared by:_____
Test Loaded by:_____
Loading Verified by:_____

Chamber Size 30 mL
Test Volume 20 mL

Feeding Times	
First*	**Second**
0 hr _____	**0 hr _____**
48 hr _____	**48 hr _____**

*"First" is 2 hours before initiation/renewal.

Temperature Range (°C)
Incubator #_____
Min._____ Max._____
Test
Min._____ Max._____

Test Results					Test Validation		
Method: EPA-821-R-02-012		**95% Confidence Intervals**		**% mortality in 100%**			
Statistics:	**LC50**	**Lower**	**Upper**		**Control Survival ≥ 90%:**	**Yes**	**No**
48 hour:							
96 hour:					**Temperature Range ≤ 3° C:**	**Yes**	**No**

Stats Calculated by/Date:_____ **Stats Verified by/Date:**_____

Comments:

FDEP Biology Laboratory - Toxicology Section
Acute SRT Survival Sheet

Test 1 of 2

Concentration (g/L)	Replicate	Chamber #	Test Hour					
			0 hr	**24 hr**	**48 hr BR**	**48 hr AR**	**72 hr**	**96 hr**
Control								
Loaded by:_________			**Checked by:**					
Verified by:_________			**Initial Concentrations by: _________**			**Concentrations at 48 hrs by: _________**		

BR = Before Renewal **AR = After Renewal** **hr = Hour** **M = Missing** **X = Dead**

Comments:

FDEP Biology Laboratory - Toxicology Section
Acute SRT Parameter Sheet

Test 1 of 2

	Concentration (g/L)	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (µmhos/cm)
0 Hours	Control	**M**				
		M				
		M				
		M				
		M				
		M				
	Measured by:					
	Recorded by:					
24 Hours	**Concentration** (g/L)	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (µmhos/cm)
	Control	**M**				
		M				
		M				
		M				
		M				
		M				
	Measured by:					
	Recorded by:					
48 Hours (Before Renewal)	**Concentration** (g/L)	**Test Replicate**	**pH** (SU)	**Temperature** (°C)	**DO** (mg/L)	**Conductivity** (µmhos/cm)
	Control					
	Measured by:					
	Recorded by:					

Comments:

FDEP Biology Laboratory - Toxicology Section
Acute SRT Parameter Sheet

Test 1 of 2

	Concentration (g/L)	Test Replicate	pH (SU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)
48 Hours (After Renewal)	Control	M				
		M				
		M				
		M				
		M				
		M				
	Measured by:					
	Recorded by:					
72 Hours	Concentration (g/L)	Test Replicate	pH (SU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)
	Control	M				
		M				
		M				
		M				
		M				
		M				
	Measured by:					
	Recorded by:					
96 Hours	Concentration (g/L)	Test Replicate	pH (SU)	Temperature (°C)	DO (mg/L)	Conductivity (µmhos/cm)
	Control					
	Measured by:					
	Recorded by:					

Comments:

FDEP Biology Laboratory
Toxicology Section
Test Instrument Page

Test 1 of 2

Test ID: *C. dubia* Acute SRT **Dates:**

METER / DEVICE	Instrument Code
DO Meter	
pH Meter	
Conductivity Meter	
Ammonia Kit	
Traceable Thermometer	
Chlorine Kit	
Alkalinity Kit	
Hardness Kit	

Entered by and date:

Comments:

FDEP Biology Laboratory-Toxicology Section
Chronic SRT Information Bench Sheet

Start Date: _____ **Time:** _____
End Date: _____ **Time:** _____

Test Type
☐ Screen
☐ Definitive
☐ Static
☐ Flow-through

Test Species: ***Ceriodaphnia dubia***
(SOP: TA-07.05, Method:2002.0)

Light Intensity: 50-100 ft candles (recommended)
Photoperiod:16 hr light, 8 hr dark (recommended)

Concentration	Mean neonates	% Survival
Control		

Chamber Size: 30 mL
Test Volume: 20 mL

Temperature Range (°C)	
Incubator #___	
Min._____	Max._____
Test	
Min._____	Max._____

Results:	
Reproduction Control % CV:	
Reproduction Dunnetts PMSD (%):	
Reproduction IC25 (g/L):	
Reproduction NOEC (g/L):	
Reproduction LOEC (g/L):	
Survival NOEC (g/L):	
Survival LOEC (g/L):	

Stats by/Date:_____
Stats verified by/Date:_____

Test Acceptability Criteria:		
Mean control reproduction ≥ 15 neonates per female:	Yes	No
3rd brood in 60% of surviving females:	Yes	No
Control Survival ≥ 80%:	Yes	No
Test Temperature Range ≤ 3° C:	Yes	No

Reviewer:_____

Comments:

FDEP Biology Laboratory - Toxicology Section

Chronic SRT Bench Sheet

Ceriodaphnia dubia Survival and Reproduction

Conc. (g/L)	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving original organisms	Neonates per female	Counts by:	Conc. prep by:	Fed by/Time fed:
Control	0*																@
	1																@
	2																@
	3																@
	4																@
	5																@
	6																@
	7																@
	8																
	Total																

Conc. (g/L)	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving original organisms	Neonates per female
	0*													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	8													
	Total													

Conc. = Concentration

s=split brood

(#) = 4th brood; not counted

*Day 0 is test initiation day

X = Dead (original organism)

Pipet used for feeding = P1

Loaded By: _____

Verified By: _____

Comments:

FDEP Biology Laboratory - Toxicology Section

Chronic SRT Bench Sheet

Ceriodaphnia dubia Survival and Reproduction

Conc. = Concentration

Conc. (g/L)	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving original organisms	Neonates per female
	0*													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	8													
	Total													

Conc. (g/L)	Day	Replicate Number 1	2	3	4	5	6	7	8	9	10	Total neonates	Surviving original organisms	Neonates per female
	0*													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	8													
	Total													

Comments:

s= split brood
(#) =4th brood; not counted
*Day 0 is test initiation day

X = Dead (original organism)

FDEP Biology Laboratory - Toxicology Section

Chronic SRT Bench Sheet

Ceriodaphnia dubia Survival and Reproduction

Conc. = Concentration

Conc. (g/L)	Day	Replicate Number										Total neonates	Surviving original organisms	Neonates per female
		1	2	3	4	5	6	7	8	9	10			
	0*													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	8													
	Total													

Conc. (g/L)	Day	Replicate Number										Total neonates	Surviving original organisms	Neonates per female
		1	2	3	4	5	6	7	8	9	10			
	0*													
	1													
	2													
	3													
	4													
	5													
	6													
	7													
	8													
	Total													

Comments:

s=split brood
(#) =4th brood; not counted
*Day 0 is test initiation day
X = Dead (original organism)

FDEP Biology Laboratory - Toxicology Section

Chronic SRT Parameter Sheet

Ceriodaphnia dubia Parameters

Replicate M = "Metered" vial, a surrogate vial for parameters

Test Day ↓	Conc. g/L	New Sample Replicate	New Sample pH (su)	New Sample Temp (°C)	New Sample DO (mg/L)	New Sample Conductivity (µmhos/cm)	Old Sample Replicate	Old Sample pH (su)	Old Sample Temp (°C)	Old Sample DO (mg/L)	Old Sample Conductivity (µmhos/cm)
Day 0	Control	M									
		M									
		M									
		M									
		M									
		M									
	Measured by:										
	Recorded by:										
Day 1	Control	M									
		M									
		M									
		M									
		M									
		M									
	Measured by:										
	Recorded by:										
Day 2	Control	M									
		M									
		M									
		M									
		M									
		M									
	Measured by:										
	Recorded by:										
Day 3	Control	M									
		M									
		M									
		M									
		M									
		M									
	Measured by:										
	Recorded by:										

Conc. = Concentration, Temp = Temperature, DO = Dissolved oxygen

Comments:

FDEP Biology Laboratory - Toxicology Section
Chronic SRT Parameter Sheet
Ceriodaphnia dubia Parameters

Replicate M = "Metered" vial, a surrogate vial for parameters

Test Day ↓	Conc. g/L	New Sample Replicate	New Sample pH (su)	New Sample Temp (°C)	New Sample DO (mg/L)	New Sample Conductivity (µmhos/cm)	Old Sample Replicate	Old Sample pH (su)	Old Sample Temp (°C)	Old Sample DO (mg/L)	Old Sample Conductivity (µmhos/cm)
Day 4	Control	M									
		M									
		M									
		M									
		M									
		M									
	Measured by:										
	Recorded by:										
Day 5	Control	M									
		M									
		M									
		M									
		M									
		M									
	Measured by:										
	Recorded by:										
Day 6	Control	M									
		M									
		M									
		M									
		M									
		M									
	Measured by:										
	Recorded by:										
Day 7	Control										
	Measured by:										
	Recorded by:										

Conc. = Concentration, Temp = Temperature, DO = Dissolved oxygen

Comments:

FDEP Biology Laboratory
Toxicology Section
Test Instrument Page

Test 2 of 2

Test ID: *C. dubia* Chronif SRT **Dates:**

METER / DEVICE	Instrument Code
DO Meter	
pH Meter	
Conductivity Meter	
Ammonia Kit	
Traceable Thermometer	
Chlorine Kit	
Alkalinity Kit	
Hardness Kit	

Entered by and date:

Comments: