FDEP Biology Lab-Toxicity Section
Test Instrument Serial Number Page
Method: EPA-821-R-02-012

METER / DEVICE	ID	SOP	Parameter	Method	Benchsheet Code
YSI Model 58 Dissolved Oxygen Meter	90H018262	TA-06.04	Dissolved Oxygen	SM 4500 O G	DO1
Thermoscientific Orion Star A213	SN X49117 Probe: 019059	TA-06.39	Dissolved Oxygen	SM 4500 O G	DO2
Accumet AR-10 pH Meter	93312105	TA-06.23	pH	SM 4500 H+	PH1
Fisherbrand FE150	SN 2753630 Probe: 01X218988	TA- 06.37	pH	SM 4500 H+	PH2
Mettler-Toledo SevenMulti Conductivity Meter	SN: 1225117049 Probe: H04257	TA-06.25	Conductivity Salinity	SM 2510 B SM 2520 B	COND1
Traceable Bench Conductivity Meter	SN 170814827	TA-06.36	Conductivity Salinity	SM 2510 B SM 2520 B	COND2
Hach Ammonia Mid-Range Kit for freshwater	Kit Lot # A6070	TA-06.33	Ammonia	SM 4500 NH3	$NH_3$2
Hach Ammonia Kit NI-SA for saltwater	Kit Lot # A6055	TA-06.33	Ammonia	SM 4500 NH3	$NH_3$1
Hach Ammonia Nitrogen Pocket Colorimeter II	Kit Lot # A8051	TA-06.35	Ammonia	SM 4500 NH3	$NH_3$4
Traceable Thermometer	#12 - SN 200815417 Probe SN 200815417	TA-06.13	Temperature	SM-2530B modified & DEP SOP-001/01 FT1400	#12
Traceable Thermometer	#13- SN 210217473 Probe SN 210217473	TA-06.13	Temperature	SM-2530B modified & DEP SOP-001/01 FT1400	#13
Traceable Thermometer	#14- SN 210233584 Probe P1/P2 SN 210233584	TA-06.13	Temperature	SM-2530B modified & DEP SOP-001/01 FT1400	#14
Hach Chlorine Pocket Colorimeter II	#2-05050C026378	TA-06.22	Total Residual Chlorine	EPA 330.5 SM 4500 CL G	#2
Alkalinity (Hach Kit)	No SN	TA-06.08	Alkalinity	SM 2320 B	ALK1
Hardness (Hach Kit)	No SN	TA-06.08	Hardness	SM 2340 C	HARD1
Mettler Toledo XA105	B314195659	BB-36	Weight	-	BAL1
Mettler Toledo MS403TS/00	B815673069	TA-06.34	Weight	-	BAL3
S-Weights	BIO-S-WEIGHTS-01	NA	Balance check	-	S01

SM-2503B modified to allow use of electronic and non-mercury filled thermometers.
Insert other device information in blank spaces as needed.

FDEP Biology Lab-Toxicity Section
Test Instrument Serial Number Page
Method: EPA-821-R-02-012

METER / DEVICE	ID	SOP	Parameter	Method	Benchsheet Code
Fisher Scientific Timer	SN 80686096	-	Time	-	T-A
Fisher Scientific Timer	SN 80686202	-	Time	-	T-B
Fisher Scientific Timer	SN 200757674	-	Time	-	T-C
Fisher Scientific Timer	SN 20075766	-	Time	-	T-D
Mechanical Pipet - C. dubia 200 µL	M634224	TA-06.32	Volume	-	P1
Mechanical Pipet - Artemia 200 µL	GH41872	TA-06.32	Volume	-	P2
Mechanical Pipet - Artemia 1000 µL	F23899	TA-06.32	Volume	-	P3
Mechanical Pipet - AGP 100 µL	T50346	TA-06.32	Volume	-	P4
Mechanical Pipet - AGP 1000 µL	GH45893	TA-06.32	Volume	-	P5
Mechanical Pipet - AGP 200-1000 µL	V18439	TA-06.32	Volume	-	P6

FDEP Biology Laboratory-Toxicity Section

Chronic SRT Bench Sheet

Start Date: _____ Time: _____ **Randomizer #_____**

End Date: _____ Time: _____

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

Circle one:

P. promelas (SOP:TA-07.09, Method: 1000.0)

M. beryllina (SOP: TA-07.04, Method: 1006.0)

Chamber Size 1000 mL
Test Volume 500 mL

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

Toxicant	Batch #/LIMS ID #	Days Used

Diluent	Batch #/LIMS ID #	Days Used

Organism Age:
_____
Batch #:
_____

Feeding Times	
First	Second
Day 0 * _____	Day 0_____
Day 1 _____	Day 1 _____
Day 2 _____	Day 2 _____
Day 3 _____	Day 3 _____
Day 4 _____	Day 4 _____
Day 5 _____	Day 5 _____
Day 6 _____	Day 6 _____

*** Day 0 first feeding is 2 hours prior to test intiation.**

Artemia Batch #'s
Day 0 _____
Day 1 _____
Day 2 _____
Day 3 _____
Day 4 _____
Day 5 _____
Day 6 _____
Artemia Lot #
_____

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

Results	
Control % CV:	
Dunnetts PMSD (%):	
Growth IC_{25} (g/L):	
Growth NOEC (g/L):	
Growth LOEC (g/L):	
Survival NOEC (g/L):	
Survival LOEC (g/L):	

P. promelas PMSD Bounds for Growth: Lower 12 Upper 30

M. beryllina PMSD Bounds for Growth: Lower 11 Upper 28

Test Validation		
Control Survival ≥ 80%:	Yes	No
Temperature Range ≤ 3° C:	Yes	No

REVIEWER:_____

Comments:

FDEP Biology Laboratory-Toxicity Section
SRT Water Quality Information Sheet

Method: EPA-821-R-02-012

Water Quality Parameters	MHW LIMS lab # _____ Batch # _____	MHW LIMS lab # _____ Batch # _____	ASW LIMS lab # _____ Batch # _____	ASW LIMS lab # _____ Batch # _____	Method	SOP	Measured By:	Transcription Checked by:
Lab Total Residual Cl_2 (mg/L)					HACH	TA-06.22		
Alkalinity (mg/L as $CaCO_3$)					HACH	TA-06.08		
Hardness (mg/L as $CaCO_3$)					HACH	TA-06.08		
Total Ammonia (mg/L as N)					HACH	TA-06.35 or TA-06.33		
Conductivity □ µmhos □ mmhos					FISCHER	TA-06.36		
Salinity (ppt)					FISCHER	TA-06.36		
Days Used								

Temperature Range (°C)	
Incubator #_____	
Min._____	**Max._____**
Test	
Min._____	**Max._____**
Room B246	
Min._____	**Max._____**

Comments:

FDEP Biology Laboratory - Toxicicty Section
Chronic SRT Survival Benchsheet

Circle one:
P. promelas (SOP:TA-07.09, Method: 1000.0)
M. beryllina (SOP: TA-07.14, Method: 1006.0)

D = dead M = missing

Concentration (g/L)	Replicate	Chamber	TEST DAY							
			0	1	2	3	4	5	6	7
Control	A		10							
	B		10							
	C		10							
	D		10							
	A		10							
	B		10							
	C		10							
	D		10							
	A		10							
	B		10							
	C		10							
	D		10							
	A		10							
	B		10							
	C		10							
	D		10							
	A		10							
	B		10							
	C		10							
	D		10							
	A		10							
	B		10							
	C		10							
	D		10							
	A		10							
	B		10							
	C		10							
	D		10							
Loaded by (0 hr): _____		Checked by:								
Verified by (0 hr): _____										
Concentrations prepared by:										

Comments:

FDEP Biology Laboratory - Toxicicty Section
Chronic SRT Parameters Benchsheet

Circle one:
P. promelas (SOP:TA-07.09, Method: 1000.0)

M. beryllina (SOP: TA-07.14, Method: 1006.0)

Rep = replicate Temp = Temperature DO = Dissolved oxygen Conc. = Concentration circle umhos or mmhos

← Test Day	Conc. (g/L)	Before Renewal: Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	Conductivity (umhos / mmhos)	Salinity (ppth)	After Renewal: Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	Conductivity (umhos / mmhos)	Salinity (ppth)
Day 0	Control	A											
		A											
		A											
		A											
		A											
		A											
		A											
	Measured by												
	Recorded by												
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 1	Control	B						B					
		B						B					
		B						B					
		B						B					
		B						B					
		B						B					
		B						B					
	Measured by												
	Recorded by												
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 2	Control	C						C					
		C						C					
		C						C					
		C						C					
		C						C					
		C						C					
		C						C					
	Measured by												
	Recorded by												
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 3	Control	D						D					
		D						D					
		D						D					
		D						D					
		D						D					
		D						D					
		D						D					
	Measured by												
	Recorded by												

Comments:

FDEP Biology Laboratory - Toxicicty Section
Chronic SRT Parameters Benchsheet

Circle one:
P. promelas (SOP:TA-07.09, Method: 1000.0)

M. beryllina (SOP: TA-07.14, Method: 1006.0)

Rep = replicate Temp = Temperature DO = Dissolved oxygen Conc. = Concentration circle umhos or mmhos

← Test Day	Conc. (g/L)	Before Renewal: Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	Conductivity (umhos / mmhos)	Salinity (ppth)	After Renewal: Test Rep.	pH (su)	Temp (°C)	DO (mg/L)	Conductivity (umhos / mmhos)	Salinity (ppth)
Day 4	Control	A						A					
		A						A					
		A						A					
		A						A					
		A						A					
		A						A					
		A						A					
	Measured by												
	Recorded by												
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 5	Control	B						B					
		B						B					
		B						B					
		B						B					
		B						B					
		B						B					
		B						B					
	Measured by												
	Recorded by												
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 6	Control	C						C					
		C						C					
		C						C					
		C						C					
		C						C					
		C						C					
		C						C					
	Measured by												
	Recorded by												
		Rep	pH	Temp	DO	Conductivity	Salinity	Rep	pH	Temp	DO	Conductivity	Salinity
Day 7	Control	D						D					
		D						D					
		D						D					
		D						D					
		D						D					
		D						D					
		D						D					
	Measured by												
	Recorded by												

Comments:

FDEP Biology Laboratory-Toxicity Section
Chronic SRT Weight Benchsheet

Circle one:
Pimephales promelas : SOP TA-7.09; EPA-821-R-01-013; Method 1000.0
Menidia beryllina: SOP TA-7.14; EPA-821-R-014; Method 1006.0

wt.= Weight Conc. = Concentration

Concentration (g/L) Concentration	Replicate	Pan # *	Mean wt. = Fish wt. divided by 10: Pan wt. (g)	Pan + Fish (g)	Fish wt. (g)	Original # of fish	Mean wt. (mg.)	Mean wt./Conc. (mg)
Control	A					10		
	B					10		
	C					10		
	D					10		
	A					10		
	B					10		
	C					10		
	D					10		
	A					10		
	B					10		
	C					10		
	D					10		
	A					10		
	B					10		
	C					10		
	D					10		
	A					10		
	B					10		
	C					10		
	D					10		
	A					10		
	B					10		
	C					10		
	D					10		
	A					10		
	B					10		
	C					10		
	D					10		
	Weighed by initials:							

* Pan # refers to actual pan # and corresponding chamber #

Comments:

FDEP Biology Laboratory-Toxicicty Section
Chronic SRT Benchsheet
Weight Quality Control

Circle one:

Pimephales promelas : SOP TA-7.09; EPA-821-R-01-013; Method 1000.0

Menidia beryllina : SOP TA-7.14; EPA-821-R-014; Method 1006.0

Empty Pan Weights Date: _____ Weighed by:_____

Weights in grams	Pan 1 wt.	Pan 1 initial wt.
after Pan 5	@	
after Pan 10	@	
after Pan 15	@	
after Pan 20	@	
after Pan 24	@	

	Measured Value (g)	S-weight Value (g)
S-weights	@	
	@	

S-Weights: BIO-S-WEIGHTS-01

Balance: Mettler Toledo XA105

Ser# B314195659

Fish + Pan Weights Date: _____ Weighed by:_____

Weights in grams	Pan 1 wt.	Pan 1 initial wt.
after Pan 5	@	
after Pan 10	@	
after Pan 15	@	
after Pan 20	@	
after Pan 24	@	

	Measured Value (g)	S-weight Value (g)
S-weights	@	
	@	

Drying Oven ID: _____

Temperature ^{o}C: _____

Drying Hours: _____

Date/Time Organisms in oven: _____

Date/Time Organisms out of oven: _____

Note: Pan number (5, 10, etc.) refers to sequence of weighing as actual Pan #s may differ.

Comments:

Instrument Code Sheet

Test ID: Dates:

METER / DEVICE	Instrument Code
DO Meter	
pH Meter	
Conductivity Meter	
Ammonia Kit	
Traceable Thermometer	
Chlorine Kit	
Alkalinity Kit	
Hardness Kit	
Balances used:	
Weights used:	
Entered by and date:	

Comments: