## **Raw Data Guide**

## Spreadsheet Tabs:

- 1) <u>Mortality- PFAS Single Conc:</u> Mortality data collected for Individual PFAS obtained as analytical standards tested at a single concentration.
- 2) <u>EPR- PFAS Single Conc:</u> Embryonic Photomotor Response Assay data collected for individual PFAS obtained as analytical standards tested at a single concentration.
- 3) <u>LPR- PFAS Single Conc:</u> Larval Photomotor Response Assay data collected for individual PFAS obtained as analytical standards tested at a single concentration.
- 4) <u>LSR- PFAS Single Conc:</u> Larval Startle Response Assay data collected for individual PFAS obtained as analytical standards tested at a single concentration.
- 5) <u>Morphology- PFCA Conc Range:</u> Morphology data collected for PFCAs obtained as commercial reference standards tested across a 0-100 μM concentration range.
- 6) <u>EPR- PFCA Conc Range:</u> Embryonic Photomotor Response Assay data collected for PFCAs obtained as commercial reference standards tested across a 0-100 µM concentration range.
- 7) <u>LPR- PFCA Conc Range:</u> Larval Photomotor Response Assay data collected for PFCAs obtained as commercial reference standards tested across a 0-100 µM concentration range.
- 8) Table ID: Links raw data tables and chemical IDs to chemical names.

## Data Types:

*Mortality and Morphology:* This is animal/well level data where each row represents an animal. There are 9 total columns for mortality and 20 for morphology. The first 6 columns is meta data, followed by 2 for mortality endpoints and 11 for morphology endpoints, with the final column being a well quality control. Below in Table A is a description of each column. To link the data to the chemicals, a "Table ID" tab is provided with 4 columns of data: Chemical ID (maps with raw data tables), Bottle ID (the stock bottle used), the decoded Chemical Name, and the Chemical Acronym/Abbreviation.

Note: If an embryo is dead (noted as "MO24", all endpoints will be "NA" as only viable embryos are evaluated"). Therefore, the MORT column represents only those that are dead at 120 hours post fertilization (hpf), and does not take into consideration those dead at 24 hpf. To consider total mortality, if MO24 == 1, MORT should be 1 also. Additionally, the endpoint "DNC\_" is not a morphological endpoint, but a well quality control. Therefore, if DNC == 1, that well should be discarded from the analysis completely.

**Behavior** (EPR, LPR, and LSR): Each row in the behavior tabs represents one well over time. For each behavioral tab, the first 5 columns consist of metadata, followed by the time series data. For 24 hpf behavior (EPR), there are 50 data points (every second), and for 120 hpf behavior (LPR) there are 240 datapoints (every 6 seconds).

Note: Removal of dead or malformed fish are high recommended, but all data provided is uncensored. The timepoints for 24 hpf behavior (EPR) are broken down into 3 periods: T1:29 is Background; T31:39 is Excitatory; and T41-T48 is Refractory. The light (L) and dark (D) cycles in the 120 hpf behavior assay (LPR) are as follows: L1: T61-89; D1: T90-119; L2: T120-149; D2: T150-179; L3: T180-209; D3: T210-239. The first 2 cycles are treated as acclimation and the third cycle is analyzed.

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Table A. Mortality and morphology endpoint descriptors.

Column Names	Definition
chemical.id	Assigned chemical ID that is the link throughout all files
bottle.id	ID specifically assigned to the bottle
conc	Concentration for each well
plate.id	Plate barcode ID
well	Well placement on plate
date	Date the plate was exposed
MO24	Mortality observed at 24 hpf
DP24	Delayed developmental by 24 hpf
SM24	Spontaneous movement at 24 hpf
MORT	Mortality occurring between 24 and 120 hpf
CRAN	Malformed, missing or smaller than normal the eye, snout, and/or jaw
	at 120 hpf
AXIS	Curved or bent axis in either direction at 120 hpf
EDEM	Heart and/or yolk sac malformation, pericardial or yolk sac edema
	(fluid around the heart) at 120 hpf
MUSC	Lack of circulation, malformation or disorganized/ missing somites,
	and improper swim bladder formation at 120 hpf
LTRK	Malformation of the lower trunk, including caudal fin region at 120
	hpf
BRN_	Brain malformations or necrosis at 120 hpf
SKIN	Abnormal pigmentation at 120 hpf
NC	Notochord malformation at 120 hpf
TCHR	Not responsive to touch at 120 hpf
DNC	Well quality control: 1 = poor well quality