

# QuickTox™Kit for QuickScan Fumonisin Flex

Catalog AQ 311 BG Part # 12210

# **Matrices and Detection Ranges:**

Matrix Group ID	Protocol	*Results reported in the range of:	Limit of Detection (LOD)*	Highest Approved Level*
	High Sensitivity: 0.2 - 1.5 ppm	0 - 1.5 ppm	0.2 ppm	1.5 ppm
FM MG1 - Corn	Base Range: 1.5 - 7 ppm	0 - 9 ppm	1.5 ppm	7.0 ppm
	High Positive: 7 - 30 ppm	0 - 41 ppm	0 - 41 ppm 7.0 ppm	
	High Sensitivity: 0.2 - 1.5 ppm	0 - 1.5 ppm	0.2 ppm	1.5 ppm
FM MG2 - DDGS	Base Range: 1.5 - 7 ppm	0 - 9 ppm 1.5 ppm		7.0 ppm
	High Positive: 7 - 30 ppm	0 - 41 ppm	7.0 ppm	30 ppm
	High Sensitivity: 0.2 - 1.5 ppm	0 - 1.5 ppm	0.2 ppm	1.5 ppm
FM MG3 – Corn Flour	Base Range: 1.5 - 7 ppm	0 - 9 ppm	1.5 ppm	7.0 ppm
	High Positive: 7 - 30 ppm	0 - 41 ppm	7.0 ppm	30 ppm
FM MG4 – Corn	High Sensitivity: 0.2 - 1.5 ppm	0 - 1.5 ppm	0.2 ppm	1.5 ppm
Common Extraction†	Base Range: 1.5 - 7 ppm	0 - 9 ppm	1.5 ppm	7.0 ppm
FM MG5 – Masa Flour Common Extraction†	Base Range: $0.5 - 5$ ppm	0 - 5 ppm	0.5 ppm	5 ppm
FM MG6 – Corn Flour Common Extraction†	Base Range: $0.5 - 5$ ppm	0 - 5 ppm	0.5 ppm	5 ppm

<sup>\*</sup>Do not assume accuracy for results reported below the protocol's LOD or above the protocol's highest approved level

## **Important Notes:**

- Before testing, the enclosed Multi-Matrix Barcode Card (MMBC) must be scanned just once for each kit lot to upload information to the QuickScan
- Fold MMBC and scan only the MG1 barcode if you want QuickScan to skip the matrix selection and default to only MG1 matrices
- QuickScan Software Version 5, Update 4 or later is required
- DB6 Buffer is matched with specific Fumonisin Flex kit lot numbers. Be sure to use DB6 with the kit it is provided with. There is a "use with" label on the DB6 that will indicate the matching Fumonisin Flex Lot Number.

Table A on page 9 is provided as a Summary Guide for testing. More details for each step in the process are described below, and are important for achieving optimal, accurate results.

<sup>†</sup>For Common Extraction, follow instructions included with ACC-105, Common Extraction Set

# Contents of Kit: 50 QuickTox Strips packed in a moisture-resistant canister 50 clear Reaction tubes 50 blue Dilution tubes 100 pipette tips (1-200 μL)

- 50 pipette tips (100-1000  $\mu$ L)
- DB6 Buffer, kit lot specific
- Multi-Matrix Barcode Card, kit lot specific

Items Not Provided:
QuickScan System*
• Incubator (base + block)*
Bunn grinder or equivalent
• 20-mesh screen
• EB18 Extraction Buffer* for certain matrices
Digital scale for weighing samples
• Extraction cups with lids* or other suitable
vessels for sample extraction
Graduated cylinder*
Orbital/rotary shaker
• Pipette to deliver 200 μL*
<ul> <li>Pipette to deliver 50 μL*</li> </ul>
Pipette to deliver larger volumes
(>200μL to 1 mL) for dilutions*
• Timer
• Scissors

<b>Available Accessories:</b>		
Item	Catalog No.	Part #
QuickScan <sup>TM</sup> System	ACC 331	12721
Sample cups/lids (500/case) For extracting samples up to 30g; extracting larger samples requires different vessels.	ACC 012-CS	10167
Graduated cylinder (100mL)	ACC 068	11207
MiniPet pipette 200 μL (one/location free)	ACC 067	11206
EB18 Extraction Buffer 10X Concentrate See instructions under 'Precautions & Notes'	KR 270-530	11930
MiniPet pipette 50 μL (one/location free)	ACC 051	11203
1 mL adjustable pipette	ACC 1303-PRO-1000	11964
Pipette tips for 1 mL pipette (50)	20-0127	12243
Incubator	ACC BSH301	12458
Microcentrifuge	ACC 064 E	11204
Common Extraction Set	ACC 105	12496

# **Intended Use**

• Microcentrifuge\*

· Distilled, deionized or bottled water

\*Available as Accessories

The QuickTox Kit for QuickScan Fumonisin Flex is designed to quickly provide quantitative results for the presence of total fumonisins.

- Limit of detection (LOD) = **0.20 ppm (high sensitivity protocol)**
- Assay range = 0.2 30 ppm, following three different protocols for the sub-ranges defined below.
  - 0.2 1.5 ppm ("High Sensitivity") 1.5 7.0 ppm ("Base Range") 7.0 30 ppm ("High Positive")



# **How the Test Works**

A composite sample is first collected, then extracted to solubilize any fumonisin present. Each sample should be ground to a fineness of 20 mesh and extracted using the specified extractant. This extract is further diluted for testing with the QuickTox Kit.

Each QuickTox Strip has an absorbent pad at each end. The protective tape with the arrow indicates which end of the strip to insert into the reaction tube. The sample extract travels up the membrane strip and is absorbed into the larger pad at the top of the strip. At the end of the test time, the strip is cut off at the top of the arrow tape, the bottom pads are discarded, and the strip is inserted into the QuickScan reader to obtain quantitative results.

# **Assay Preparation**

Table A on page 9 is provided as a Summary Guide for testing. More details for each step in the process are described below, and are important for achieving optimal, accurate results. Notice: Common Extraction for Corn, Masa Flour, or Corn Flour requires unique sample preparation and assay execution; refer to instructions included with ACC-105, Common Extraction Set.

# **Preparation of the Sample**

Turn on the incubator and set to 22°C for a minimum of 10 minutes before testing. Ensure that the temperature display has stabilized and indicates "OK" before starting the assay. Make sure all reagents including samples, strips, buffer, and sample extractant are at room temperature and ready for use before starting the assay. The sample extract should be tested shortly after dilution with buffer.

## Determine number and size of sub-samples and weigh out

- 1. Collect a composite sample according to your own sampling plan or USDA/GIPSA guidelines. Consult USDA/GIPSA reference documents to help design a plan that fits your needs.
- 2. Grind samples using a Bunn grinder or mill which provides a sample such that ≥95% passes through a 20-mesh sieve. Mix ground material thoroughly before sub-sampling.
- 3. Weigh samples into containers that will allow enough head room for the liquid to move forcefully when shaken vigorously.

## **Extract samples**

- 1. Consult the Summary Guide Table A to determine the volume and type of Extractant that has been validated for the matrix. To calculate the volume of liquid to add, multiply the sample weight (in grams) x ratio (in milliliters, mLs)
  - For example, 20 grams x = 100 mL (water) to add to corn
- 2. Make sure the grain is completely wet, and then mix thoroughly as stated in the table. Liquid should be moving forcefully through the matrix to extract the fumonisin.
- 3. The order of addition has been optimized. Please follow this order.
- 4. Samples that are not thoroughly mixed and <u>fully wetted</u> may adversely affect test results due to inconsistent extraction.

## **Clarify extracts** (again, adhere to the Summary Guide table for optimal performance)

- 1. <u>Settling</u>: Allow the sample to sit undisturbed until a top layer forms that can easily be pipetted. This top layer is the extract that will be used in the testing.
- 2. <u>Centrifugation</u>: Fill a microcentrifuge tube with extract and centrifuge for one minute at 2000 x g (<u>not rpm</u>). The top layer is the extract that will be used in the testing.

## **Protocol Selection Relative To Your Level(s) of Interest:**

If your Level of Interest falls within the range of a single protocol, run only that protocol. If your level of interest spans the full quantitation range (0.2-30 ppm); it is recommended that you start with the Base Range followed by either the High Sensitivity or High Positive protocol depending on the results—this run order will minimize the time and number of strips required to get to the final result. Refer to Table A on p. 9 for the complete extraction and run instructions.

Protocol	*Results reported in the range of:	Limit of Detection (LOD)*	Highest Approved Level*	Sample Dilution 1	Sample Dilution 2	Transfer run volume to a clear Reaction tube and add to Incubator
	, , , , , , , , , , , , , , , , , , ,			375 μL DB6 buffer (corn) <b>OR</b>	NA	
High Sensitivity				250 μL DB6 buffer		Transfer 200 μL into
0.2 - 1.5 ppm	0 - 1.5 ppm	0.2 ppm	1.5 ppm	(DDGS and Corn Flour)		clear Reaction
0.2 - 1.3 ppiii				+ 50 μL extract		tube
				in blue Dilution tube		
Dogo Domgo				2.5 mL DB6 buffer +	NA	Transfer 200 µL into
Base Range	0 - 9 ppm	1.5 ppm	7.0 ppm	50 μL extract		clear Reaction
1.5 - 7 ppm				in blue Dilution tube		tube
High Dogitive				2.5 mL DB6 buffer +	150 μL DB6	buffer + 50 µL Sample
High Positive	0 - 41 ppm	7.0 ppm	30 ppm	50 μL extract	Dilution	1 in clear Reaction tube
7 - 30 ppm		**	- *	in blue Dilution tube		

<sup>\*</sup>Do not assume accuracy for results reported below the protocol's LOD or above the protocol's highest approved level

# Add reagents to the blue Dilution Tube, followed by transfer to the clear Reaction Tube.

**Note:** For Common Extraction of Corn, Corn Flour or Masa Flour, follow instructions for ACC-105, Common Extraction Set.

Reference Table A for protocol-specific dilutions based on the quantitation level desired.

- 1. **Take care not to contaminate the DB6 Buffer**. Keep Buffer covered when not in use, and use a new pipette tip for each test. **Please note**: DB6 Buffer is matched with specific Fumonisin Flex kit lot numbers; be sure to use the DB6 that is provided with the kit (do not mix and match buffers with different kit lots). There is a "use with" label on the DB6 that will indicate the matching Fumonisin Flex lot number.
- 2. Follow Table A instructions for Buffer and extract order of addition.
- 3. Use three pipette tips (large tip for Buffer, small tip for extract and another small tip to transfer the mixture to the Reaction tube) for each sample. \*Retain the large pipette tip after buffer addition to be used for mixing purposes.
- 4. While adding the extract to the buffer in the Dilution Tube make sure to rinse the small tip by drawing it up and down a few times.
- 5. Mix Buffer and sample extract thoroughly by drawing the liquids up and down in the pipette tip (always use the larger volume pipette for this purpose). Samples that are not thoroughly mixed and/or accurately pipetted will adversely affect test results.
- 6. Transfer 200 µL of the diluted sample to the Reaction Tube.
- 7. Use a new Dilution Tube and Reaction Tube for each sample.
- 8. Follow the instructions under How to Run.

# How to Run the QuickTox Strip Test

A minimum of 10 minutes before testing is to start, turn on the incubator and set to 22°C (follow manufacturer's instructions for setting temperature); ensure that the temperature display has stabilized and indicates "OK" before starting the assay. If testing is planned throughout the day it is recommended to turn the incubator on in the morning and leave it on throughout the day.

- 1. Allow refrigerated canisters to come to room temperature before opening.
- 2. Add the reaction tube containing the diluted sample to the incubator (be sure it has reached 22°C). If the temperature of the testing environment is unknown or outside of the range of 20-24°C (68-75°F), allow the sample to acclimate in the incubator for 2 minutes before proceeding.
- 3. Remove the QuickTox Strips to be used. Avoid bending the strips. Reseal the canister immediately.
- 4. Place the strip into the reaction tube containing the Buffer and sample extract. The arrow tape on the end of the strip should point into the reaction tube.
- 5. Allow the strip to develop for the time noted in Table A (e.g., 5 minutes for corn).
- 6. Immediately cut off and discard the bottom section of the strip covered by the arrow tape. Insert strip into the QuickScan reader for quantitation.

# Use of the QuickScan System

Detailed instructions for use of the QuickScan System are supplied with each unit, and can also be found at <a href="mailto:envirologix.com/quickscan">envirologix.com/quickscan</a>. The lot-specific Multi-Matrix Barcode Card (MMBC) must be scanned into the system prior to testing. In summary, a strip is inserted into the reader and the strips are read by touching or clicking on the "Read Test" area of the screen. The "Select Matrix Groups" screen will appear if more than one barcode was scanned into the system from the MMBC. Select the group that displays the matrix run. Results are then recorded in an electronic worksheet, allowing each user to report and track data easily.

Based on the protocol run, ensure the appropriate selection is made under the Dilution tab on the results screen.

	Protocol Run								
	High Sensitivity: 0.2 - 1.5 ppm Base Range: 1.5 - 7 ppm High Positive: 7 - 30 p								
Dilution tab drop down menu selection	1:1	1:A	1:B						

# Kit Storage

This QuickTox Kit should be stored refrigerated. Note the shelf life on the kit box. Prolonged exposure to high temperatures may adversely affect the test results. Do not open the desiccated canister until ready to use the strips.

# **Cross-reactivity**

The following mycotoxins have been tested with this kit and no false positive results occurred at the 200 ppm level: Aflatoxin B1, DON (deoxynivalenol), Ochratoxin A, Zearalenone.

# **Precautions and Notes**

- Strips must be read wet promptly at the specified time for the matrix run to ensure accurate results.
- **IMPORTANT:** If used, the 10X EB18 Extraction Buffer should be considered an irritant (SDS available at <a href="https://www.envirologix.com/?attachment\_id=3004">https://www.envirologix.com/?attachment\_id=3004</a>). Avoid contact with the skin, eyes, or clothing. Wear personal protective equipment including safety glasses, gloves, and a lab coat when handling.
  - o **To prepare 1X EB18 Buffer Solution:** Mix 1 part 10X EB18 Extraction Buffer with 9 parts of water. 1X solution expires one week from date of mixing when stored at room temperature, or 4 weeks when stored at 2-8°C
- This product is currently not applicable for use in testing any other crops beyond those specified in this Product Insert.
- Pipettes lose calibration accuracy over time. Calibrate or replace pipettes at least annually.
- The corn assay is calibrated against samples with Fumonisin levels determined by a 3<sup>rd</sup> party using UHPLC/MS/MS with 13C isotopic internal Fumonisin standards (Biopure ILM003, ILM004 and ILM005, Romer Labs). Performance in other sample matrices has been validated using fortified samples.
- As with all screening tests, it is recommended that results be confirmed by an alternate method when necessary.
- The assay has been optimized for use with the protocols provided in the kit. Deviation from these protocols may invalidate the results of the test. Room-temperature components, proper and thorough mixing, accurate pipetting, and using the correct corresponding DB6 Buffer provided in the kit are essential to accurate results.
- The results generated through the proper use of this diagnostic tool reflect the condition of the working sample directly tested. Extrapolation as to the condition of the originating lot, from which the working sample was derived, should be based on sound sampling procedures and statistical calculations which address random sampling effects, non-random sampling effects and assay system uncertainty. A negative result obtained when properly testing the working sample does not necessarily mean the originating lot is entirely negative for the analyte in question.
- Protect all components from hot or cold extremes of temperature when not in use. Do not leave in direct sunlight or in vehicle.
- Observe any applicable regulations when disposing of samples and extracts.



# For Technical Support Contact Us At:

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Revision nr.2 Dated 01/01/2019 ENVIROLOGIX Page n. 1 / 5 Safety data sheet SECTION 1. Identification of the substance/mixture and of the company/undertaking Trade name:
Part number
1.2 Relevant identified uses of the substance or
mixture and uses advised against application
of the substance / the preparation: DB 6 Dilution Buffer 11151 (KR-268) Laboratory chemicals; kit component. Not to be used for purposes other than those specified in product literature. 1.3 Details of the supplier of the safety data sheet Manufacturer/Supplier; EnviroLogix Inc., 500 Riverside Industrial Pkwy, Portland ME 04103, USA Phone: (207) 797-0300 (207) 797-0300 Technical Service 1.4 Emergency telephone number: SECTION 2. Hazards identification. 2.1 Classification of the substance or mixture Classification according to 29CFR 1910.1200: Not Classified 2.2 Label elements Labeling according to 29CFR 1910,1200 None Hazard Statements: 2.3 Other Statements: None SECTION 3. Composition/information on ingredients. 3.2 Mixture CAS No EC No Classification According to 29CFR 1910.1200 Amount (%) Chemical name Sodium Tetraborate Decahydrate 1303-96-4 215-540-4 SECTION 4. First aid measures.
4.1 Description of first aid measures
After inhalation: In case of inhalation. Remove to fresh air. If not breathing give artificial respiration. Get medical attention immediately. respiration. Get medical attention immediately.

In case of skin contact. Remove contaminated clothing and shoes immediately. She ask affected area with mild soap or detergent for at least 10 minutes or until no evidence of chemical remains.

In case of eye contact, immediately thus eyes with plenty of water for at least 15 minutes. Lifting eyelids occasionally, until no evidence of chemical remains. Get medical attention immediately.

In case of ingestion. DO NOT Induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a physician immediately. After skin contact: After eve contact :



4.2 Most important symptoms and effects, both acute and delayed: 4.3 Indication of any immediate medical attention and special treatment needed:

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#### SECTION 8. Exposure controls/personal protection.

After swallowing :

8.1 Exposure limits:

Components with limit values that require monitoring at the workplace: EH40/2005 8 Hr TWA = 5mg/m<sup>3</sup> 8 Hr TWA = 10 mg/m<sup>3</sup> Sodium Tetraborate

8.2 Exposure Controls: 8.2.1 Engineering controls

Facilities using this mixture should be equipped with an eyewash and safety shower. Use general or local exhaust ventilation to keep airborne concentrations below permissible exposure limits.

8.2.2 General protective and hygienic

The usual precautionary measures should be adhered to when handling chemicals.

Eve Protection:

Safety glasses with side shields, goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Eye and face protection regulations are described by OSHA (US) in 29CFR1910.133. Do not wear contact lenses when working with chemicals

Hand Protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/68/EEC and the standard EN 374 derived from it.

Appropriate respiratory protection should be determined according to local conditions using risk analysis protocols. An approved disposable air purifying particulate respirator may be used as a backup to engineering controls. Always use respirators and components tested and approved under appropriate government standards such as NIOSM IUS) or CEN (EM) IUS) or CEN (EM).

8.2.3 Environmental exposure controls: Contain spills, do not allow into environmen

Clear liquid, colorless to slight yellow.

SECTION 9. Physical and chemical properties.
9.1 Information on basic physical and hemical properties.
a) Appearance:
b) Odor:
c) Odor Threshold:
d) pH;
8.6 None No Data Available d) prt: e) Melting point/freezing point: f) Boiling point/Boiling range: g) Flash point: h) Evaporation rate: i) Flammability (solid, gaseous) No Data Available No Data Available, Not applicable. No Data Available No Data Available

i) Flammability (solid, gaseous): j) Upper/lower flammability or explosive j) Upper-lower flammability or explosive limits:
k) Vapor pressure:
l) Vapor pressure:
l) Vapor density:
m) Relative density:
m) Subability/cite (See Subability):
m) Partition Cerfficient: n-Octanol/water:
m) Partition Cerfficient: n-Octanol/water:
m) Partition Cerfficient: n-Octanol/water:
m) Partition Cerfficient: n-Octanol/water:
m) Decomposition temperature:
l) Viscosity:
m) Explosive properties:
l) Oxidizing properties: No Data Available No Data Available No Data Available

9.2 Other information: No further relevant information available.

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SECTION 5. Firefighting measures.

5.1 Extinguishing media: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture: None

5.3 Advice for firefighters: Wear protective gear appropriate for fire conditions including respiratory protective gear.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: In the case of spilled mixture wear gloves to prevent skin contact. In the case of a large spill, additional protection is recommended.

6.2 Environmental precautions: Do not discharge mixture to sewer system or waterways

6.3 Methods and material for containment and cleanup:

Absorb in paper towel or suitable absorbent for larger spills and discard in appropriate waste. Clean with water afterwards.

For safe handling refer to Section 7, For information on PPE refer to Section 8.

For disposal refer to Section 13

SECTION 7. Handling and storage

7.1 Precautions for safe handling:

7.2 Conditions for safe storage, including any incompatibilities:

Practice good chemical hygiene when handling. Avoid contact with eyes, skin, and clothing.

Store in tightly closed, non-metal container, in a corrosive compatible area. Prevent direct sunlight and heat. Store in well aired storage rooms.

7.3 Specific end use(s): Apart from the uses mentioned in section 1.2, no other specific uses are stipulated

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SECTION 10. Stability and reactivity.

10.1 Reactivity: No data available

Stable under normal temperatures and pres 10.2 Chemical Stability:

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur

10 4 Conditions to avoid: No specific data No Data Available. 10.5 Incompatible materials:

10.6 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decompositions products should not be produced.

SECTION 11. Toxicological information.

No Data Available

No sensitizing effects known Sensitization:

CMR (carcinogenicity, mutagenicity and toxicity for reproduction) effects: No CMR effects.

Additional toxicological information: No Additional Information

SECTION 12. Ecological information.

No Data Available 12.2 Persistence and degradability : No Data Available 12.3 Bio accumulative potential: No Data Available 12.4 Mobility in soil: No Data Available

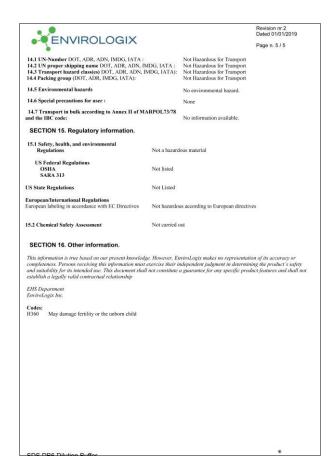
12.5 Results of PBT and vPvB

Not available as a chemical safety assessment, not required/not conducted.

12.6 Other adverse effects: No Data Available

SECTION 13. Disposal considerations

SECTION 14. Transport information.



**Table A: Summary Guide for Approved Matrices** 

Approved Matrices (associated assay range)	Matrix Group	Add Grain to Vessel First	Add Extractant Second	Fully wet sample, then mix	Clarify	Run the Base Range protocol first followed by either the High Positive or High Sensitivity protocols if necessary#	Pre-Mix sample in blue Dilution Tube followed by transfer to clear Reaction Tube	Add Reaction Tube to Incubator set at 22°C	Add strip for	Read in QuickScan: Dilution tab on the result page should display
		5x vol water*	1 minute highest speed on shaker		1.5 to 7.0 ppm (Base Range)	Pre-Mix 2.5 mL buffer + 50 μL extract† Transfer 200 μL	Acclimate tube for 2 min^	5 min.	1:A	
Corn	FM MG1	20g to 50g		table, or 2 minutes vigorously by hand	(High Pos	7.0 to 30 ppm (High Positive)	Transfer 150 μL buffer + 50 μL of the Pre-Mix extract from the 1.5 - 7 ppm protocol, Mix	Acclimate tube for 2 min^	5 min.	1:B
						0.2 to 1.5 ppm (High Sensitivity)	Pre-Mix 375 μL buffer + 50 μL extract Transfer 200 μL	Acclimate tube for 2 min^	5 min	1:1
			5x vol 1X EB18	1 minute		1.5 to 7.0 ppm (Base Range)	Pre-Mix 2.5 mL buffer + 50 μL extract† Transfer 200 μL	Acclimate tube for 2 min^	5 min.	1:A
DDGS FM	FM MG2	FM MG2 20g to 5 mL per gram of sample, e.g.	highest speed on shaker table, or Cent 2 minutes vigorously	Centrifugation	7.0 to 30 ppm (High Positive)	Transfer 150 μL buffer + 50 μL of the Pre-Mix extract from the 1.5 - 7 ppm protocol, Mix	Acclimate tube for 2 min^	5 min.	1:B	
				250 mL to a 50g sample	by hand		0.2 to 1.5 ppm (High Sensitivity)	Pre-Mix 250 μL buffer + 50 μL extract Transfer 200 μL	Acclimate tube for 2 min^	5 min

## Notes:

For Common Extraction in Corn (MG4), Masa Flour (MG5), or Corn Flour (MG6), follow instructions included with ACC-105, Common Extraction Set.

<sup>\*</sup> Use distilled, deionized, or flat (non-carbonated) bottled water.

<sup>^</sup> The tube acclimation step is only required if the temperature of the testing environment is unknown or outside of 20-24°C (68-75°F)

<sup>†</sup> Retain this Pre-Mix extract in case High Positive testing is necessary

<sup>#</sup> If your Level of Interest falls within a single protocol range, run only that protocol (see Instructions and table on p. 3)

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**Table A: Summary Guide for Approved Matrices (cont.)** 

Approved Matrices (associated assay range)	Matrix Group	Add Grain to Vessel First	Add Extractant Second	Fully wet sample, then mix	Clarify	Run the Base Range protocol first followed by either the High Positive or High Sensitivity protocols if necessary#	Pre-Mix sample in blue Dilution Tube followed by transfer to clear Reaction Tube	Add Reaction Tube to Incubator set at 22°C	Add strip for	Read in QuickScan: Dilution tab on the result page should display
Corn Flour FM MG3 20g to 50g	3X VOI	1 minute highest speed		1.5 to 7.0 ppm (Base Range)	Pre-Mix 2.5 mL buffer + 50 μL extract† Transfer 200 μL	Acclimate tube for 2 min^	5 min.	1:A		
	50g gram of or sample, e.g. 2 minutes	Centrifugation	7.0 to 30 ppm (High Positive)	Transfer 150 μL buffer + 50 μL of the Pre-Mix extract from the 1.5 - 7 ppm protocol, Mix	Acclimate tube for 2 min^	5 min.	1:B			
	to a 50g sample vigorously by hand	0.2 to 1.5 ppm (High Sensitivity)	Pre-Mix 250 μL buffer + 50 μL extract Transfer 200 μL	Acclimate tube for 2 min^	5 min	1:1				

## Notes:

For Common Extraction in Corn (MG4), Masa Flour (MG5), or Corn Flour (MG6), follow instructions included with ACC-105, Common Extraction Set.

<sup>\*</sup> Use distilled, deionized, or flat (non-carbonated) bottled water.

<sup>^</sup> The tube acclimation step is only required if the temperature of the testing environment is unknown or outside of 20-24°C (68-75°F)

<sup>†</sup> Retain this Pre-Mix extract in case High Positive testing is necessary

<sup>#</sup> If your Level of Interest falls within a single protocol range, run only that protocol (see Instructions and table on p. 3)