# **ENVIROLOGIX**<sup>™</sup>

## QuickTox™Kit for **QuickScan** DON Flex

#### Catalog AQ 304 BG

Part # 12208, 12120

#### **Matrices and Detection Ranges:**

Matrix Group ID	Matrices	Limit of Detection (LOD)^	Maximum Reported Value of Base Range	Range with Dilution*			
DF MG1	Wheat						
DF MG2	Corn						
DF MG3	Wheat Flour						
DF MG4	White Wheat Flour; Wheat Bran						
DF MG5	Wheat Midds			2.0-30 ppm			
DF MG6	Wheat Red Dog		8.0 ppm				
DF MG7	DDGS	0.1					
DF MG8	Corn Gluten Meal	0.1 ppm					
DF MG9	Corn Germ						
DF MG11	Corn Flour						
DF MG12	Malted Barley						
DF MG13	Barley						
DF MG14	Oats						
DF MG15	Wheat Gluten						
DF MG16	Sorghum						
DF MG17	Soybean Meal						
DF MG18	Milled Rice	0.2 ppm					
DF MG19	Rough Rice	]					
DF MG20	Whole Rye						
DF MG10	Corn Gluten Feed	0.29 ppm					

^ Do not assume accuracy for results reported below the assay's LOD.

\*Do not assume accuracy for results reported below 2 or above 30 ppm

#### **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
- Scan MMBC with all MG barcodes facing down to enable selection of target matrix during analysis or fold the MMBC and scan only the MG1 or MG2 barcode if you want QuickScan to skip the matrix selection and default to only the matrices associated with the selected group
- QuickScan Software Version 4.11.0 Update 1 or later is required
- DB6 Buffer is matched with specific DON 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 DON Flex Lot Number.

If only testing matrix is Wheat or Corn, fold the Multi Matrix Barcode and scan only the DF MG1 or DF MG2 barcode. This allows the software to skip the step which prompts users to select a Matrix Group.

Matrix Group ID	Matrices	Matrix Group ID	Matrices
DF MG1	Wheat	DF MG2	Corn

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

Contents of Kit:	Available Accessories	:					
• 50 QuickTox Strips packed in a moisture-resistant canister	Item	Catalog No.	Part #				
<ul> <li>50 clear Reaction Tubes</li> <li>100 pipette tips</li> <li>DB6 Buffer, kit lot specific</li> </ul>	QuickScan <sup>TM</sup> System	ACC 131	10050 + 10198				
<ul> <li>Multi-Matrix Barcode Card, kit lot specific</li> </ul>	Sample cups w/ lids (500/case) For extracting extracting larger sample		10167				
Items Not Provided:		extracting larger samples requires different vessels. Sample cups may also be used to collect filtrate.					
<ul> <li>QuickScan System*</li> <li>Incubator Base (Mini Dry Bath)*</li> <li>Incubator Block*</li> </ul>	Graduated cylinder (100 mL)	ACC 068	11207				
<ul><li>Bunn grinder or equivalent</li></ul>	Coffee filters (100)	ACC 083	11434				
• 20-mesh screen (available through Seedburo or other vendors)	MiniPet pipette 100 µL (one/location free)	ACC 041	11202				
<ul> <li>Digital scale for weighing samples</li> <li>Plastic sample cups with lids* or other extraction vessels</li> </ul>	1 mL adjustable pipette Helpful for dilution testing	ACC 1303-PRO-1000	11964				
<ul> <li>Graduated cylinder*</li> <li>Orbital/rotary shaker</li> <li>Pipette to deliver 100 µL*</li> </ul>	Pipette Tips (50) for 1 mL pipette	20-0127	12243				
<ul> <li>Approved Coffee Filters (EnviroLogix validated)*</li> <li>Timer</li> </ul>	Centrifugation Set: Disposables for 50 tests	ACC 010	11214				
<ul><li>Scissors</li><li>Blue dilution tubes (for some matrices)</li></ul>	Microcentrifuge	ACC 064 E	11204				
<ul> <li>Oster blender with ½ gallon glass vessel</li> <li>Bottled, distilled or deionized water</li> </ul>	Dilution Tubes (50) 12 x 75 mm	ACC 098	12236				
<ul> <li>Dilution tubes for high positive samples*</li> </ul>	Incubator	ACC BSH 301	12458				
Microcentrifuge*	Microcentrifuge	ACC 064 E	11204				
*Available as Accessories							

### **Intended Use**

The QuickTox Kit for QuickScan DON Flex is designed to quickly extract and screen milled samples for the presence of Deoxynivalenol (DON) residues. The QuickTox Kit will then provide quantitative results when used in conjunction with the QuickScan System.

- Limit of detection (LOD) = 0.1 ppm (0.29 ppm for Corn Gluten Feed)
- Assay range = up to 8.0 ppm in a base range and up to 30 ppm with additional dilution.

• In the assay's Base Range, results are reported from 0 to 8 ppm. Accuracy of results less than LOD for each matrix should not be assumed. Results greater than 8 ppm are reported as "> 8 ppm.".. When following the Range with Dilution, accuracy should not be assumed for results reported under 2 ppm or over 30 ppm.

### How the Test Works

A composite sample is first collected, then extracted to solubilize any DON present. Each sample should be ground to a fineness of 20 mesh and extracted following the protocol specified for the matrix being run. 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.

A unified extraction and analysis protocol for most matrices avoids sample preparation error without compromising test accuracy and precision. Each matrix is assigned to a Matrix Group (MG). Each MG has a common standard curve and maximum reported value. When the user selects the MG during testing, the QuickScan System software reads the test strip, retrieves the lot specific information that was uploaded using the Multi-Matrix Barcode Card (MMBC), and uses the appropriate curve to obtain a result for the matrix being tested.

### **Assay Preparation**

Table A on page 9 is provided as a Summary Guide for testing each matrix. More details for each step in the process are described below, and are important for achieving optimal, accurate results. Notice a special sample preparation protocol for Whole Rye and Corn Gluten Feed where intermediate extract dilution has to be applied. Notice Wheat Gluten requires a blender and centrifuge along with a 50g sample size.

#### **Preparation of the Sample**

Turn on the incubator and set to 22°C for a minimum of 10 minutes before testing. Ensure 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. All commodities require the same 5X extraction ratio with water.

For example, 50 grams x = 250 mL (water) to sample

- 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 DON.
- 3. The order of addition has been optimized. Please refer to and follow Summary Guide instructions for each matrix regarding the order of addition.
- 4. Samples that are not thoroughly mixed and <u>fully wetted</u> may adversely affect test results due to inconsistent extraction.

Clarify extracts (adhere to the Summary Guide table for optimal performance)

1. <u>Filtering:</u> Add an approved coffee filter (example: BUNN part #BUNBCF100B) to a clean vessel and pour extract into the filter, allow the sample to sit for 2 minutes. Pull back an edge of the filter to gain access to the filtered extract.

- 2. <u>Centrifugation</u>: Fill a microcentrifuge tube with extract and centrifuge for the specific time at 2000 x g (<u>not rpm</u>). The clear layer is the extract that will be used in the testing.
- 3. <u>Settling</u>: Allow the sample to sit undisturbed until it separates into two layers.. The top layer containing the DON residues will be used in testing In some instances, a foamy layer will float above the desired top layer. The best technique to retrieve this extract is to tip the extraction cup at a 45 degree angle, exposing the supernatant beneath the foamy layer, avoiding particulates.

#### Add reagents to reaction tube

- 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 DON 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 DON Flex lot number.
- 2. Follow Table A instructions for Buffer and extract order of addition.
- 3. Use two pipette tips (one for Buffer, one for extract) for each sample.
- 4. Mix Buffer and sample extract thoroughly by stirring or drawing the liquids up and down in the pipette tip. Samples that are not thoroughly mixed and/or accurately pipetted will adversely affect test results.
- 5. Do not reuse diluted samples. Use a new reaction tube for each sample.

### 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 the temperature display has stabilized and indicates "OK" before starting the assay. If testing is planned throughout the day it 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 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.
- 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 <u>http://www.envirologix.com/support/quickscan</u>. The Multi-Matrix Barcode Card must be scanned into the system prior to testing.

In summary, a strip is inserted face down in the carrier with the barcoded end closest to the handle. The carrier is inserted into the reader and the strips are read by touching or clicking on the "Read Test" area of the screen. If the "Select Matrix Groups" screen appears, select the group that displays the matrix run for each device. Results are then recorded in an electronic worksheet, allowing each user to report and track data easily.

Results are reported up to 8.0 ppm. Results will be reported down to '0', but accuracy should not be assumed for results below the LOD for the matrix being tested; reference Table A for the Matrix Group LOD levels. Results greater than 8.0 ppm are reported as ">8.0 ppm."

### **Range with Dilution**

If after running and reading the test, the initial result is greater than 8 ppm (">8 ppm" on QuickScan), and further knowledge about the level of contamination is desired, samples can be retested by further dilution of the sample extract. Do not assume accuracy for results reported below 2 and above 30 ppm using this Dilution protocol.

- 1. In a separate tube (not provided) combine extract with water to create a 1:8 dilution. Example: 1 part clarified extract + 7 parts water;  $100 \ \mu\text{L} + 700 \ \mu\text{L}$ ). Measure carefully and mix well.
- Rerun assay as before, adding Buffer + diluted extract as instructed in Summary Guide into the clear reaction tube (mix, add to the incubator and acclimate if necessary), add a new strip for the time specified. Example: for corn, pipette 100 μL DB6 + 100 μL of the extract diluted with water into a new vial (acclimate), add a new test strip, and allow the strip to develop for the time noted in Table A.
- 3. In the QuickScan Results Screen, choose "1:A" under the Dilution tab (dropdown menu). The System will calculate and record the DON level in the diluted sample.

### 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 100 ppm level: Aflatoxin  $B_1$ , Fumonisin  $B_1$ , Ochratoxin A, Zearalenone, T-2 and HT-2.

### **Precautions and Notes**

- Strips must be read wet promptly at the specified time for the matrix run to ensure accurate results.
- Accuracy of results less than the stated LOD for the matrix being tested, should not be assumed.
- This product is currently not applicable for use in testing any other crops beyond those specified in this Product Insert.
- This assay is calibrated against wheat and corn reference samples supplied by Trilogy Analytical Laboratory, Washington, MO, and other vendors and associated HPLC data. Where possible, performance in other sample matrices has been validated using naturally contaminated samples. Where naturally contaminated samples are not available, performance 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 kit lot specific 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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EnviroLogix has developed this kit using proprietary reagents.

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	Material Safety Data Sheet According to OSHA 29CFR 1910.1200		SECTION 5. Firefighting measures 5.1 Extinguishing media:	CO2, extinguishing powder or water spray. Fight larger fires with water spray or a resistant foam.
1.1 Product identifier	f the substance/mixture and of the company/undertaking		5.2 Special hazards arising from the substance mixture:	
Trade name: Part number 1.2 Relevant identified uses of the substance or	DB 6 Dilution Buffer 11151 (KR-268)		5.3 Advice for firefighters:	Wear protective gear appropriate for fire conditions including respiratory protecti gear.
1.2 Relevant identified uses of the substance of mixture and uses advised against applicati of the substance / the preparation :	Laboratory chemicals; kit component. Not to be used	for purposes other than		
1.3 Details of the supplier of the safety data she Manufacturer/Supplier:	EnviroLogix Inc. 500 Riverside Industrial Pkwy		SECTION 6. Accidental release measures	
	Portland ME 04103, USA Phone: (207) 797-0300		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
1.4 Emergency telephone number:	(207) 797-0300 Technical Service		6.2 Environmental precautions:	spill, additional protection is recommended. Do not discharge mixture to sewer system or waterways.
SECTION 2. Hazards identification 2.1 Classification of the substance or mixture			6.3 Methods and material for containment and cleanup:	Absorb in paper towel or suitable absorbent for larger spills and discard in appropri
Classification according to 29CFR 1910.120	0: Not Classified		6.4 References to other sections:	waste. Clean with water afterwards.
2.2 Label elements Labeling according to 29CFR 1910.1200				<ul> <li>For safe handling refer to Section 7. For information on PPE refer to Section 8. For disposal refer to Section 13</li> </ul>
	Yictogram: None gnal word: None		SECTION 7. Handling and storage	
Sig Hazard Si			7.1 Precautions for safe handling:	Practice good chemical hygiene when handling. Avoid contact with eyes, skin, and clothing.
2.3 Other Statements:	None		7.2 Conditions for safe storage, including any Incompatibilities:	Store in tightly closed, non-metal container, in a corrosive compatible area. Prevent sunlight and heat. Store in well aired storage rooms.
SECTION 3. Composition/information on	ingredients		7.3 Specific end use(s):	suringin and near. Some in went area storage rooms. Apart from the uses mentioned in section 1.2, no other specific uses are stipulated
3.2 Mixture Chemical name CAS No	EC No Classification According to 29CFR 1910.1200	Amount (%)	L	
Sodium Tetraborate 1303-96-4 Decahydrate	215-540-4 H360 Rep 1B	1-3%		
SECTION 4. First aid measures			SECTION 8. Exposure controls/personal p	protection
4.1 Description of first aid measures After inhalation :	In case of inhalation. Remove to fresh air. If not breatl Get medical attention immediately.		8.1 Exposure limits: Components with limit values that require monitoring at the workplace:	EH40/2005         OSHA           Sodium         8 Hr TWA = 5mg/m <sup>3</sup> 8 Hr TWA = 10 mg/m <sup>3</sup>
After skin contact :	In case of skin contact, Remove contaminated clothing affected area with mild soap or detergent for at least 10 chemical remains.	minutes or until no evidence of		Sodium 8 Hr TWA = 5mg/m <sup>5</sup> 8 Hr TWA = 10 mg/m <sup>5</sup> Tetraborate Decabydrate
After eye contact :	In case of eye contact, immediately flush eyes with pler minutes. Lifting eyelids occasionally, until no evidence	nty of water for at least 15 se of chemical remains. Get		
After swallowing :	medical attention immediately. In case of ingestion. DO NOT Induce vomiting unless personnel. Never give anything by mouth to an uncore	directed to do so by medical scious person. Call a physician		
4.2 Most important symptoms and effects, both	immediately.			
And delayed: 4.3 Indication of any immediate medical attent	None ion and			
special treatment needed:	None			
SDS : Dilution Buffer DB 6	Revision : 17 June, 2015	Page I of 5	SDS : Dilution Buffer DB 6	Revision : 17 June, 2015 Pag
SDS : Dilution Buffer DB 6 <b>8.2 Exposure Controls</b> 8.2.1 Engineering controls	Facilities using this mixture should be equipped with an eyeware	sh and safety shower. Use	SUS : Dilaton Buffer DB 6	Revision : 17 June, 2015 Pag
<ol> <li>Exposure Controle:</li> <li>8.21 Engineering controls</li> <li>8.2.2 General protective and hygienic</li> </ol>	Facilities using this mixture should be optipped with an eyewar general or local exhaust ventilation to keep autoence concentrat exposure limits.	sh and safety shower. Use items below permissible		
8.7 Exposure Controls 8.2.1 Engineering controls	Facilities using this mixture should be equipped with an eyewar general or local eshaust ventilation to keep airborne concentrati exposure limits. The usual precunionary measures should be adhered to when h Staftry glasses with side shields, expedies.	sh and safety shower. Use ions below permissible undling chemicals. e protection tasted and	SZCTION I I a TOXICO/OFCel Information Information on Toxicological Differt	
<ol> <li>Exposure Controle.</li> <li>Ingunsering controls</li> <li>Central protective and hygienic measures:</li> </ol>	Facilities using this mixture, should be quajpped with an eyenu- general or local exhaust ventilation to keep arborne concentrati exposure limits. The usual precunitomary measures should be adhered to when h Safety galaxies with side builded, seggles. Use quiprarter for ey- actored under an encoding according to admended soft as 3000	sh and safety shower. Use item below permissible sandling chemicals. w protection tested and SH (USD) CPL (be(ED)).	STOTION II a rostrological information Information on Textological Effects Acute effects (texicity tests):	No Data Available
<ol> <li>Exposure Controle.</li> <li>Taginsering controls</li> <li>Central protective and hygienic measures:</li> </ol>	Eacilities using this mixture should be optipped with an eyenes general or local exhaust ventilation to keep airborne concentrat exposure limits. The usual precantionary measures should be adhered to when h Safety galesses with side shided, orggins. Use outpresent for oy approved under appropriate government strutualus such as NDI by and these protection regulations are described by OSHA (U not ware corted locans what weeking with charactals	sh and safety shower. Use tions below permissible andling chemicals. we protection tested and SR (USO) or TN (66 (ED). S) in 29/CFR1910.133. Do	SZCTION I I a TOXICO/OFCel Information Information on Toxicological Differt	
<ol> <li>Exposure Controls</li> <li>2.1 Engineering controls</li> <li>2.2 General protective and hygienic measures: Eye Protection:</li> </ol>	Facilities using this mixture should be equipped with an eyewa general or local educative tentilation to keep aubone concentral exposure innits. The usual precursionary measures should be adhered to when h Safety glasses with side bicks, expgles. Use suppressed for the start preparation of the start of the start of the pression of accor opportunities, epogles. Use any interpret for pression of accor opportunities, epogles. Use any interpret of the start opportunities of the start of the start pression of accor opportunities and the start of the net ware context lenses when working with characted testing evident tooching glow's outer aufficie to used data before context opportunities of the start of the start of the testing evident tooching glow's start aufficie to avoid data before context opportunities. The scheder arrows of	ah and safety shower. Use toos below permissible andling chemicals. or protection based and SRI (US)or EN 167 (EU) SRI (US)or EN 167 (EU) SRI 207 (RV101.133. Do e proper glove removal n extinct with this product. Piptiche I new and good for	SECTION 11. Toxicological information Information on Toxicological Effects Acute Circle (toxic) toxic). Semilization: CMR (orcircemticity, mutaenticity and	No Data Available No sensitizing effects known
<ol> <li>Exposure Controls</li> <li>2.1 Engineering controls</li> <li>2.2 General protective and hygienic measures: Eye Protection:</li> </ol>	Faultists using this mixture should be againpod with an eyenus general or local eshant ventilation to keep arboene concentrati exponsar limits. The usual procuntionary measures should be adhered to when h Safety galeses with side builded, seggles. Use equipment for ey- approved under appropring jecorements handrades solts a ND Eye and here proteine regulations are described by OSHA (U to first weight the size of the size of the size of the size learning weight the size of the size of the size of the size of the Dispose of contaminated galeses after use in according on the Dispose of contaminated galeses after use in according on the Dispose of contaminated galeses after use in according the size size historic prediction of EU Directive 80060EEE and the size size	sh and safety shower. Use tiens below permissible andling chemicals. w protection totad and SII (USO) or IN 106 (EU). SI in 29:CFR1910.133. Do proper glowe removal ne context with his product. replicable laws and good try allows and good try allows and good try allows and good the to local conflictors.	SECTION 11. Toxicological information Information on Toxicological Effects Acute fictos (toxicity tests): Sensitzation: CMR (excitoperialy, matagenisity and toxicity for production) effects Additional toxicological information:	No Data Available No sensitizing effects known No CMR effects.
<ul> <li>8.2 Exposure Controls</li> <li>8.2.1 Engineering controls</li> <li>8.2.2 General protective and hygienic measures:</li> <li>Eye Protection:</li> <li>Hand Protection:</li> </ul>	Facilities using this mixture should be optipped with an eyewas general or local exhaust ventilation to keep airbone concentrat exposure limits. The usual precuritorius should be adhered to when h Safety genesas with side shided, eggelse. Use outpresent for oy approved used regrepside government stundes such as NDD Eye and here protection regulations are described by OSIA (2) to the same structure of the student student student to the use contact bounds with the same student Dispose of contaminated giones after use in saccerdance with ag Dispose of contaminated gions after use in saccerdance with a protection of contaminated gions after use in saccerdance with Dispose of contaminated gions after use in saccerdance with ag Dispose of contaminated gions after use in saccerdance with a particulation on BU Directive 80/60/EEC and the standard Appropriate registatory protection sheal to deform the associa- ture and an approximate protection sheal to deform the saccerd total and approximation gives protection sheal to be dimensioned as provident strets and approximation gives protection sheal to be dimensioned as pro- ticed and approximation gives protection sheal to be dimensioned as the saccerdance strets and approximation gives protection sheal to be dimensioned as the saccerdance sheal to be dime	sh and safety shower. Use lons below permissible andling chemicals. Set (US) or [IN 166 (ED), S) in 20-CR4910, L33, Do proper glove removal excited with first product, by a context with first product, the D3 74 derived from it. High S4 load coefficiency vice gloves have to safety the D3 74 derived from it.	SECTION 11. Tostrological information Information on Tostchopical Effects Acute dictos (tostor) tosto Sensitization: CMR (neuropenticity mutagenicity and tossiny for proposition) effects.	No Data Available No sensitizing effects known No CMR effects.
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2.2 Exposure Controle     8.2.1 Engineering controls     8.2.1 Grant protective and hyginic     measures:     Eye Protection:     Hand Protection:     Hand Protection:     Breathing Equipment:     8.2.3 Environmental exposure controls:     SECTION SO Physical and chemical prop     9.1 Information on basic physical and     chemical perfice.     1) Oddre provide Protection:     1) Program/our relationary print:     1) Program/our relationship (     1) Program/our relationshi	Facilities using his mixture should be equipped with an eyewa general of local eshuart ventilation to keep airbone coccentriat exposure limits. The useal precationary measures should be adhered to when h Safety adases with individual specific to export the specific performance of the specific transmission of the specific transmission by and the production regulations are described by OSHA(c). For water contact lenses when working with charriads by and his production regulations are described by OSHA(c). The water contact lenses when working with charriads blackatery practices. Weak and by hunk. The solected protect the specifications of Discover Stobel Discover Stobel Discover Stobel The specifications of Discover Stobel Discover Stobel Discover Stobel and and approved under appropriate government standards as (ED). Contain split), do not allow into environment et al. Appropriate logication is a standard by the specification as a standards as (ED). Contain split), do not allow into environment standard approved under appropriate government standards as (ED). No Data Available No Data Available	sh and safety shower. Use lions below permissible unadling chemicals. Set (USS) or R1 (SG (ED)) (SF (USS) or R1 (SG (ED)) (SF (USS) or R1 (SG (ED)) (SF (USS) (SF (SG (EG))) (SF (SG (EG))	SECTION 11. Texteological information Information on Texteological Effect Acute (Texteological information CME (correspondence), multiple CME (correspondence), multiple Additional toxicological information           SECTION 12. Ecological information           12.1 Feedstree and degradability : 12.2 Persistence and degradability : 12.3 Bio accumulative potential: 12.4 Medility in soil: 12.5 Results of PBT and vPvB assessment: 12.6 Other adverse effects           SECTION 13. Disposal considerations           Waste treatment methods:           SECTION 14. Fransport information 14.1 UN-Number FOT, ADR, ADR, MIDA, IA, 14.2 Fransport heard class(se) DOT, ADR, ADR, 110A, IAR 14.3 Transport heard class(se) DOT, ADR, ADR, 110A, IAR 14.4 Fransport heard class(se) DOT, ADR, MIDA, IAR 14.5 Environmental heards	No Data Available No sensitizing effects known No CMR effects No Addisonal Information No Data Available Contract a licensel professional wate disposal service to dispose of this material. Daposal of sensel professional wate disposal service to dispose of the material Daposal of sensel professional wate disposal service to dispose of the material and national laws and regulations. TA: No Data Available TA: No Hazardous for Transport DN, IMDG, IATA: Not Hazardous for Transport DN, IMDG, IATA: Not Hazardous for Transport DN, IMDG, IATA: Not Hazardous for Transport No emvironmental hazard. Nore
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S. Exposure Controls     8.2.1 Engineering controls     8.2.1 Generating controls     8.2.2 Generat protection:     Brasthing Equipment:     Brasthing Equipment:     Brasthing Equipment:     8.2.3 Environmental exposure controls:     SECTONS - Physical and chemical prop     3.1 Information on basic physical and     chemical properties     9. All offermation on basic physical and     chemical physical and chemical prop     3.1 Information on basic physical and     chemical physical and chemical prop     9.1 Information on basic physical and     the physical and chemical prop     9.1 Information on basic physical and     9.1 Physical and Chemical prop     9.1 Information on basic physical and     9.1 Physical and Chemical prop     9.1 Information on basic physical and     9.1 Physical and Chemical prop     9.1 Information (Physical and Chemical Prop     9.1 Information (Physical and Chemical Prop     9.1 Physical and Chemical Prop     9.1 Information     9.1 Physical and Chemical Prop     9.1 Information     9.1 Physical Antifering prop     9.1 Physical Antifering properties     9.2 Other Information	Facilities using this mixture should be equipped with an eyewa general or local exhaust ventilation to keep airbone concentratic exposure limits. The usual precuritionary measures should be afford to when h Safty galaxes with side helda, geggles. Use equipment for ey- approved under apporting performance instandists side is NOD by the second strategies of the second strategies of the technique (without booking give's extra tradied) is one of the technique (without booking give's extra tradied) is one of the approved under galaxies and by instead performance in the specifications of DI Directive 800 SMEECE and the strategies in the specifications of DI Directive 800 SMEECE and the strategies may be used as a backup to engineering centreds. Always use re- stead and apprevent under appropriate government strategies in the specifications of Directive 800 SMEECE and the strategies may be used as a backup to engineering centreds. Always use re- stead and appreventuel and exploration always the pre- tend and appreventuel and appropriate government strategies (EU). (EU). (Ch).	sh and safety shower. Use liens below permissible unadling chemicals. y protection tables dard self (15) yor EN 166 (EU) S) in 29CFR1910.133. Do e people glow removal n contact with this product, in 20CFR1910.133. Do e 125 37 44 drevel from it. His 37 34 drevel from it. His 37 34 drevel from it. His 37 34 drevel from it. His 37 44 drevel from it. His 37 44 drevel from it. His 37 44 drevel from it.	SEC TION 11. TOSTODIRED Information Information on Trackological Information Acute effects (torcisty tests):           Sensitization: CMR (earlingenia): milligning of the sensitivity of tosciely for reproduction of feets: Additional tosicological information           SECTION 12. Ecological information           12.1 Testicity:           12.3 Bio accumulative potentials:           12.4 Mobility in soll:           12.5 Results of PBT and vPvB assessment:           12.6 Other adverse effects:           SECTION 13. Disposal considerations           Value trainment methods:           SECTION 14. Transport information           14.1 UN-Number COT, ADR, ADN, IMDGI, ADR, AD, 14.3 Transport hazard classed DOT, ADR, MDR, MDR, 14.3 Transport hazard classed DOT, ADR, MDR, MDR, 14.5 Environment bazards           14.5 Environment blazards           14.6 Special presention for user : 14.7 Transport halk according to Amex H	No Data Available No sensitizing effects known No CMR effects No Additional Information No Data Available Not available as a chemical safety assessment, not required not conducted. No Data Available Contact a licensed professional waste disposal service to dispose of this material. Disposal of surplus or waste solutions must be in accordance with applicable local and national laws and regulations. TAT: Not Hazardous for Transport No, Hazardous for Transport No environmental hazard Nore

SECTION 15. Regulatory information 15.1 Safety, health, and environmental	
regulations US Federal Regulations OSHA SARA 313	Not a hazardous material Not listed
US State Regulations	
European/International Regulations European labeling in accordance with EC Directives	Not hazardous according to European directives
15.2 Chemical Safety Assessment	Not carried out
SECTION 16. Other information	
Persons receiving this information must exercise their indep	lowever. EnviroLogix makes no representation of its accuracy or completeness pendent judgment in determining the product's safety and suitability for its intende specific product features and shall not establish a legally valid contractual
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#### **Table A: Validated Matrices**

Table A: Approved Matrices	Matrix Group	Limit of Detection – LOD (ppm)	Add Grain to Vessel First, then Water*	Fully wet sample, then mix	Clarify/dilute	Add to the reaction tube and mix	Add reaction tube to Incubator set at 22°C	Add strip for	For testing >8ppm, dilute extract <sup>+</sup>								
Wheat	DF MG1				Filter (2 min maximum) <i>or</i>												
Corn	DF MG2				Centrifuge (30 sec) or Settle												
Wheat Flour	DF MG3		then at the														
White Wheat Flour, Wheat Bran	DF MG4			30 seconds at the highest													
Wheat Midds	DF MG5		5X volume	speed													
Wheat Red Dog	DF MG6		of water*	on shaker													
DDGS	DF MG7		(e.g. 20g	table,	Filter				1:8 in water								
Corn Gluten Meal	DF MG8	0.1	sample, then	or vigorously by hand	vigorously		vigorously	vigorously	vigorously	vigorously	vigorously	vigorously (	(2 min maximum)	100 μL of buffer +	Acclimate	<b>a</b> .	$(100 \ \mu L \ sample$ plus 700 $\mu L \ water)$
Corn Germ	DF MG9	0.1	100 mL water)	oy nana		100 µL of clarified	tube for 2 min^	2 min	followed by 1:1								
Corn Flour	DF MG11		water)			extract	2 11111		with buffer; select								
Malted Barley	DF MG12								1:A on Dilution tab								
Barley	DF MG13																
Oats	DF MG14																
Wheat Gluten	DF MG15		Add 250 mL water to blender vessel <i>then</i> 50g sample	Blend sample at highest speed for 2 minutes	Centrifuge for 1 min @ 2000 X g												

Notes:

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

^ 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)

+ Follow the protocol outlined under 'Range with Dilution'

### Table A: Validated Matrices (cont.)

Table A: Approved Matrices	Matrix Group	Limit of Detection – LOD (ppm)	Add Grain to Vessel First, then Water*	Fully wet sample, then mix	Clarify/dilute	Add to the reaction tube and mix	Add reaction tube to Incubator set at 22°C	Add strip for	For testing >8ppm, dilute extract <sup>+</sup>
Sorghum	DF MG16	0.2							
Soybean Meal	DF MG17	0.2	20g to		Filter	100 μL of buffer + 100 μL of			1:8 in water
Milled Rice	DF MG18	0.2	50g then	30 seconds at	(2 min maximum)	clarified extract			(100 μL sample plus 700 μL water) followed by 1:1
Rough Rice	DF MG19	0.2	5X volume of water*	the highest speed on shaker			Acclimate tube for	2 min	with buffer; select 1:A on Dilution tab
Whole Rye	DF MG20	0.2	(e.g. 20g sample, then 100 mL	table, or vigorously by hand	Filter (2 min maximum) and dilute extract 1:1 with water	100 μL of buffer + 100 μL of diluted extract	2 min^		
Corn Gluten Feed	DF MG10	0.29	water		Filter (2 min maximum)	200 μL of buffer + 100 μL of clarified extract	1		1:8 in water (100 μL sample plus 700 μL water) followed by 2:1 with buffer; select 1:A on Dilution tab

Notes:

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

^ 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)

+ Follow the protocol outlined under 'Range with Dilution'