

Catalog Number AS 070 STS

Part #11640

Highlights:

- Results in 10 minutes or less
- Available as 50-strip kit or in bulk packaging.

Contents of Kit:

- 50 QuickStix Strips packed in a moisture-resistant canister
- EB15 Extraction Buffer (see Sample Preparation for preparation instructions)

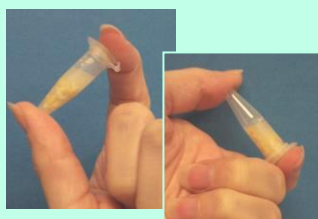
Items Not Provided:

- 1L Bottle to mix up EB15 Extraction Buffer
- Materials and method to crush single seeds
- Tissue extraction tubes (available through EnviroLogix, ACC 002 VI)

Single seed testing:



Crush seed



Extract seed sample

Intended Use

The EnviroLogix QuickStix Kit for Enogen™ Corn Seed is designed for qualitative detection of the amylase protein in Enogen™ corn seed samples. Enogen™ corn derived from transformation Event 3272 contains the transgene *amy797E*, which encodes a synthetic thermostable alpha-amylase protein.

How the Test Works

The QuickStix Kit is a “sandwich” type lateral flow strip test. In the test, bulk grain corn and single seed corn extracts are prepared and tested using a strip coated with antibodies raised against amylase protein. Amylase present in the sample extract binds to the antibodies bound on the strip and is then detected by a second anti-amylase antibody that is gold labeled. A positive sample results in a visual pink line forming about half way up the strip along with a second control line.

Each QuickStix Strip has an absorbent pad at each end. The protective tape with the arrow indicates the end of the strip to insert into the reaction vial. The sample will travel up the membrane strip and be absorbed into the larger pad at the top of the strip. The portion of the strip between the protective tape and the absorbent pad at the top of the strip is used to view the reactions as described under “Interpreting the Results”.

Sample Preparation

Prepare EB15 Extraction Buffer –Pour the entire contents of the supplied buffer packet into 1 liter of tap water. Thoroughly mix to dissolve the buffer. Store at room temperature when not in use. (See Precautions and Notes; SDS is attached on pages 4-5).

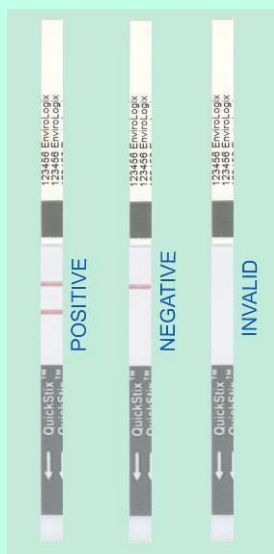
1. Use caution to prevent sample-to-sample cross-contamination with plant tissues, fluids, or disposables. Repeat the protocol for each sample to be tested, using a new plastic bag and tube for each.
2. Finely crush a single corn seed (*Suggestion: use pliers with seed in resealable plastic bag*). Transfer to a tissue extraction tube; marked with sample identification if desired.
3. Add **1.0 mL** of Extraction Buffer into the tube containing crushed seed.
4. Close the tube cap securely. Shake the tube **vigorously** for **30 seconds** using an up-and-down, end-to-end motion, ensuring that all solids (including those in the tapered end of the tube) are wet and forcibly very well mixed throughout the buffer. After shaking step, tap the solid materials to the bottom of the tube. The extract should appear very cloudy.

How to Run the QuickStix Strip Test

1. Allow refrigerated canisters to come to room temperature before opening. Remove the QuickStix Strips to be used. Avoid bending the strips. Reseal the canister immediately.
2. Place the strip into the reaction vial. The sample will travel up the strip. Reaction vials will stand on their own or may be inserted into the cardboard racks provided.
3. Allow the strip to develop for 10 minutes before making final assay interpretations. Positive sample results may become obvious much more quickly.
4. To retain the strip, cut off and discard the bottom section of the strip covered by the arrow tape.



Add test strip, wait 10 minutes;
read results



Any clearly discernable pink Test Line is considered positive



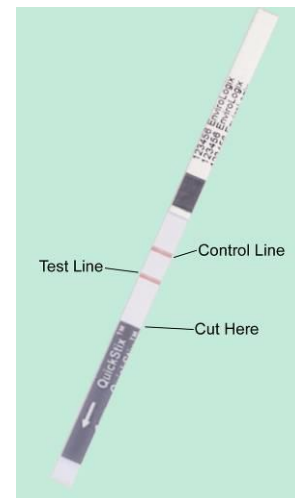
NOTE: Use extreme caution to prevent sample-to-sample cross-contamination with grain, fluids, or disposables.

Interpreting the Results

Development of the Control Line within 10 minutes indicates that the strip has functioned properly. Any strip that does not develop a Control Line should be discarded, and the sample re-tested using another strip.

If the extract is from a sample containing Enogen™ corn (Event 3272), a second line (Test Line) will develop on the membrane strip between the Control Line and the protective tape. *The results should be interpreted as positive for amylase expression.*

If the extract is from a negative sample, the strip will only show the Control Line.



Kit Storage

QuickStix can be stored at room temperature, or refrigerated for a longer shelf life. Note the shelf life on the kit box for each storage temperature. The kit may be used in field applications; however, prolonged exposure to high temperatures may adversely affect the test results. Do not open the desiccated canister until ready to use the test strips.

Precautions and Notes

- This kit is designed to screen for presence or absence only, and is not meant to be quantitative.
- This product is currently not applicable for use in any other crop or in leaf tissue testing.
- As with all tests, it is recommended that results be confirmed by an alternate method if necessary.
- The extraction buffer used in the sample preparation procedure is a high pH (>11) and should be handled using eye and skin protection (safely glasses/goggles and gloves). SDS is attached (pages 4-5). Resulting corn extract is ~pH 9; check your local regulations concerning disposal.
- The assay has been optimized to be used with the protocol provided in the kit. Deviation from this protocol may invalidate the results of the test.
- 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 seed lot 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 or protein in question.
- Warning: a strong positive result may safely be interpreted in as little as 2 minutes after sample addition. **It is not safe to interpret weak positive or negative results prior to 10 minutes.**
- DO NOT leave in direct sunlight or in vehicle. Protect all components from hot or cold extremes of temperature when not in use.



**For Technical Support
Contact Us At:**

EnviroLogix
500 Riverside Industrial
Parkway
Portland, ME 04103-1486
USA

Tel: (207) 797-0300
Toll Free: 866-408-4597
Fax: (207) 797-7533

e-mail:
info@envirologix.com

website:
www.envirologix.com



LIMITED WARRANTY

EnviroLogix Inc. (“EnviroLogix”) warrants the products sold hereunder (“the Products”) against defects in materials and workmanship when used in accordance with the applicable instructions for a period not to extend beyond a product’s printed expiration date. If the Products do not conform to this Limited Warranty and the customer notifies EnviroLogix in writing of such defects during the warranty period, including an offer by the customer to return the Products to EnviroLogix for evaluation, EnviroLogix will repair or replace, at its option, any product or part thereof that proves defective in materials or workmanship within the warranty period.

ENVIROLOGIX MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The warranty provided herein and the data, specifications and descriptions of EnviroLogix products appearing in EnviroLogix published catalogues and product literature are EnviroLogix’ sole representations concerning the Products and warranty. No other statements or representations, written or oral, by EnviroLogix’ employees, agents or representatives, except written statements signed by a duly authorized officer of EnviroLogix Inc., are authorized; they should not be relied upon by the customer and are not a part of the contract of sale or of this warranty.

EnviroLogix does not warrant against damages or defects arising in shipping or handling, or out of accident or improper or abnormal use of the Products; against defects in products or components not manufactured by EnviroLogix, or against damages resulting from such non-EnviroLogix made products or components. EnviroLogix passes on to customer the warranty it received (if any) from the maker thereof of such non-EnviroLogix made products or components. This warranty also does not apply to Products to which changes or modifications have been made or attempted by persons other than pursuant to written authorization by EnviroLogix.

THIS WARRANTY IS EXCLUSIVE. The sole and exclusive obligation of EnviroLogix shall be to repair or replace the defective Products in the manner and for the period provided above. EnviroLogix shall not have any other obligation with respect to the Products or any part thereof, whether based on contract, tort, strict liability or otherwise. Under no circumstances, whether based on this Limited Warranty or otherwise, shall EnviroLogix be liable for incidental, special, or consequential damages.

This Limited Warranty states the entire obligation of EnviroLogix with respect to the Products. If any part of this Limited Warranty is determined to be void or illegal, the remainder shall remain in full force and effect.

This test kit has been approved by Syngenta for detection of the amylase protein in Enogen™ corn.

*Enogen™ is a trademark of a Syngenta Group Company
EnviroLogix, the EnviroLogix logo and QuickStix are trademarks of EnviroLogix Inc.*

© EnviroLogix 2015



Safety Data Sheet
According to 29CFR1910.1200

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
Trade name: **Extraction Buffer**
Part number: EB15, EB16, KR242

1.2 Relevant identified uses of the substance or mixture and uses advised against application of the substance or the preparation:
Laboratory chemicals

1.3 Details of the supplier of the safety data sheet
Manufacturer/Supplier: EnviroLogix Inc., 500 Riverside Industrial Pkwy., Portland ME 04103, USA (207) 797-0200
207-797-0200 (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: **Hazard Classes**
Acute Toxicity, Oral Cat. 4
Skin corrosion Cat. 1
Serious eye irritation Cat 2

2.2 Label elements
Labeling according to 29CFR 1910.1200:
Hazard pictograms:

Signal word: **Danger**

Hazard statements:
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H319 Causes serious eye irritation

Precautionary statements:
P301+P330+P331 If swallowed: rinse mouth do not induce vomiting
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

2.3 Other Statements None

SECTION 3. Composition/information on ingredients

Chemical name	CAS No	EC No	Amount (%)
Tinodolium Phosphate, Dodecahydrate	10101-89-0	231-509-8	75.0% - 80.0%
Sodium Sesquicarbonate	533-96-0	208-580-9	20.0% - 25.0%

SECTION 4. First aid measures

4.1 Description of first aid measures

In case of inhalation: Remove to fresh air. If not breathing give artificial respiration.

In case of skin contact: Remove contaminated clothing and shoes immediately. Wash 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 flush eyes with plenty of water for at least 15 minutes. Lifting eyelids occasionally, until no evidence of chemical remains. Call a physician.

In case of ingestion: Rinse mouth. DO NOT induce vomiting unless directed to do so by medical personnel. Call a physician immediately.

4.2 Information for doctor
May cause skin damage/irritation and eye damage/irritation. Treat symptomatically.

4.3 Indication of any immediate medical attention and special treatment needed: None

SDS : Extraction Buffer EB15, EB16, KR242 Date: July 30, 2015 Page 1 of 4

SECTION 5. Firefighting measures

5.1 Extinguishing media CO₂, extinguishing powder or water spray. Use extinguishing media appropriate to surroundings and circumstances

5.2 Special hazards arising from the substance or mixture: Oxides of Phosphorous and Sodium

5.3 Advice for firefighters Do not enter fire area without proper protective equipment, including respiratory protection

SECTION 6. Accidental release measures

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

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

6.3 Methods and material for containment and clean up: Small spills wipe or scrape up and discard in appropriate waste. Clean with water afterwards. Large spills wipe or scrape up material, wash area thoroughly with water. Dispose according to section 13.

6.4 Reference to Other Sections: For safe handling, refer to Section 7; for information on PPE refer to Section 8; for disposal information, refer to Section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling: Practice good chemical hygiene when handling. Avoid contact with eyes, skin, and clothing.

7.2 Conditions for safe storage, including any incompatibilities Keep container tightly closed in a dry and well-ventilated space.

7.3 Specific end use(s) Apart from those mentioned in Section 1.2, no other specific end uses are stipulated.

SECTION 8. Exposure controls/personal protection

8.1 Control Parameters
Components with limit values that require monitoring of the workplace: None

8.2 Exposure Controls
Engineering Controls Utilize general industrial hygiene practice

Personal protective equipment
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.
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 89/886/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 NIOSH (US) or CEV (EU).

Environmental Controls Contain spills, do not release to the environment.

SDS : Extraction Buffer EB15, EB16, KR242 Date: July 30, 2015 Page 2 of 4

SECTION 9. Physical and chemical properties

9.1 Information on Physical and Chemical properties:

a) Form: Crystalline powder
b) Odor: None
c) Color: White
d) pH (1% in water): 11
e) Melting point/Melting range: No Data Available
f) Boiling point/Boiling range: No Data Available
g) Flash point: Not applicable
h) Evaporation rate: Not applicable
i) Flammability (solid, gas): Product is not flammable.
j) Upper/lower flammability or explosive limits: No Data Available
k) Vapour pressure: Not applicable
l) Vapor Density: Not applicable
m) Relative density: No Data Available
n) Water solubility: Moderate
o) Partition coefficient: n-octanol/water: No Data Available
p) Auto-ignition temperature: No Data Available
q) Decomposition temperature: No Data Available
r) Viscosity: No Data Available
s) Explosive properties: No Data Available
t) Oxidizing properties: No Data Available

9.2 Other information No further relevant information available.

SECTION 10. Stability and reactivity

10.1 Reactivity: No data available
10.2 Chemical stability: Stable under recommended storage conditions
10.3 Possibility of hazardous reactions: No data available
10.4 Conditions to avoid: No data available
10.5 Incompatible materials: Strong acids, Aluminum
10.6 Hazardous decomposition products: No data available, in the event of a fire see section 5

SECTION 11. Toxicological information

11.1 Information on toxicological effects
Acute effects (toxicity tests): Product has not been tested

Skin corrosion/irritation: Causes skin irritation
Serious eye damage/irritation: Causes eye irritation

Sensitization skin, respiratory: None known

Additional toxicological information: CMR (carcinogenicity, mutagenicity and toxicity for reproduction) – No Data Available

SECTION 12. Ecological information

12.1 Toxicity 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 assessment: Not carried out
12.6 Other adverse effects: No data available

SDS : Extraction Buffer EB15, EB16, KR242 Date: July 30, 2015 Page 3 of 4

SECTION 13. Disposal considerations

13.1 Waste treatment methods: Hand over to hazardous waste disposers. Follow federal, state and local regulations for discharge for waste control regulations. US EPA guidelines for waste classification determination is listed in 40 CFR part 261.3. Follow European Directive on waste, 2008/98/EC.

Unopened packaging: Disposal must be in accordance with official regulations.

SECTION 14. Transport information

14.1 UN-Number DOT, ADR, ADN, IMDG, IATA: Not dangerous goods
14.2 UN Proper Shipping Name Not dangerous good
14.3 Transport hazard classes Not dangerous goods
14.4 Packing Group Not dangerous goods
14.5 Environmental hazards Avoid release into the environment.
14.6 Special precautions for user None
14.7 Transport in bulk, according to Annex II of MARPOL 72/78 None
And the IBC code: Not applicable

SECTION 15. Regulatory information

15.1 US Federal Regulations
TSCA The ingredients of this product are listed on the TSCA inventory.
SARA Section 302 (Extremely Hazardous Substances) No chemicals in this material are subject to requirements of SARA Title III, Section 302
SARA section 313 Not listed

SECTION 16. Other information

This information is true based on our present knowledge. However, EnviroLogix makes no representation of its accuracy or completeness. Persons receiving this information must exercise their independent judgment in determining the product's safety and suitability for its intended use. This document shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

EHS Department
EnviroLogix Inc.

Codes:
H302 Harmful if swallowed
H314 Causes severe skin burns and eye irritation
H319 Causes serious eye irritation

P301+P330+P331 If swallowed: rinse mouth do not induce vomiting
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes Remove contact lenses, if present and easy to do Continue Rinsing.

SDS : Extraction Buffer EB15, EB16, KR242 Date: July 30, 2015 Page 4 of 4