

Feed Homogeneity Test

Microtracer consist of iron grit particles coloured with food-grade dyes. It is used to:

- 1) validate homogeneity of mixing process
- 2) monitor batch-to-batch carryover/residue or cross-contamination

Test Methods:

1. 41CHEM-C173* Feed Homogeneity test - CV
2. 41CHEM-C240* Feed Homogeneity test (Carry-over)
3. 41CHEM-C241* Feed Homogeneity test - Chi Sq (GMP Plus)

1) Validation of Homogeneity:



Preparation of Mixer

- 1) Clean and perform maintenance.
- 2) Check rpm of mixer.
- 3) Check and repair leaking at discharge door, if needed.
- 4) Check density of materials to determine suitable batch size.
- 5) Design and determine mixing time.
- 6) Plan Sampling points.



Application of Microtracer

- 1) Mix 1 bag of Microtracer for x tonne feed with 1 kg of ingredients (e.g., ground corn, salt) evenly before adding to mixer.
- 2) Add components of step-1 into the mixer together with other hand-added ingredients.
- 3) Operate the mixing process as per company's operation procedure.

* " x tonne feed" refers to batch size of feed

* Quantity of Microtracer provided will be based on requested batch size.



Sample Collection

- 1) Label the 10 sampling bags with Sample Identification, according to the 10 planned sampling points and ensure it is recorded.
- 2) Stop the mixer upon completion of the mixing process.
- 3a) If an open mixer is used, take a minimum of 300 g sample from the 10 sampling points in the mixer.
- 3b) If a fully closed mixer is used, take the 10 samples of minimum 300 g from the conveyer or during packing. Sampling duration is calculated by dividing total discharging time per batch to 12 segments. Do not sample from the first two segments to avoid cross-contamination from the previous batch. For example: For a batch with total discharging time of 180 seconds, take sample at 30, 45, 60, 75, 90, 105, 120, 135, 150 and 165 seconds. Do not sample at 0 and 15 seconds.
- 3c) Alternatively, take a minimum of 300 g sample from alternate bags during packing.
- 4) Manually remove excess air from the sampling bag by hand. Twist the opening of the sampling bag as tight as possible and seal the sampling bag with cable tie.
Note: The sampling bag must be sealed tightly so that the sample particles in the sampling bag are fixed in position. This is important to ensure that the distribution of Microtracer in the sampling bag reflects that of the sampling location.
- 5) Cut excess cable tie to avoid puncturing other samples while sending to laboratory for analysis.
- 6) Pack all samples into the sampling bag provided and tie it securely with a rubber band.
- 7) Fill out VFAD submission form by indicating the batch number of Microtracer used as well as the production batch size.
- 8) Send the samples to VFAD or hand over to our technical and marketing specialist.

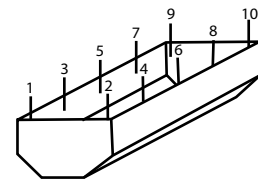


Diagram 1:
Proposed sampling locations in the mixer



Diagram 2:
Packing of sample

2) Carry-over Evaluation (Trace Analysis/Residue Test)

To detect the cross-contamination

- 1) Production of feed is run as usual, after homogeneity batch, without the addition of Microtracer.
- 2) Follow step 1 to step 6 in sample collection guide above.
- 3) For carry-over evaluation, sample weight of a **minimum 800 g** is required in step 3a and step 3b.
- 4) When filling out VFAD submission form, please indicate homogeneity production batch ID as information from homogeneity batch will also be used in carry-over evaluation.

Kindly contact our technical and marketing specialist at vfad@rhonema.com for further assistant.



Vet Food Agro Diagnostics (M) Sdn Bhd
200101024963 (560721-X)
Lot 18B, Jalan 241, Seksyen 51A, 46100 Petaling Jaya, Selangor, Malaysia
(T) 603 7873 6405/7873 7355 (372/379) (F) 603 2770 0119
(W) www.vfad.com.my (E) vfad@rhonema.com

