Rhonda Swearengen
Genomatica, Inc.
4757 Nexus Center Drive
San Diego, CA 92121

Re: GRAS Notice No. GRN 001165

Dear Rhonda Swearengen:

The Food and Drug Administration (FDA, we) is granting the request to cease our evaluation of GRN 001165, which we filed on January 8, 2024. We received this request on April 4, 2024.

The subject of the notice is (R)-1,3-butanediol for use as an ingredient in ready to drink sports beverages; powdered and ready to drink nutrition beverages; meal replacement beverages; sports gels; ready to drink "energy" drinks; and sports and nutrition bars at a maximum level of 11.5 g per serving. The notice informs us of Geomatica, Inc.'s (you, your) view that these uses of (R)-1,3-butanediol are GRAS through scientific procedures.

In a teleconference with you on March 20, 2024, and in a follow-up email later that day, we informed you that we had concerns that the notice's narrative lacked sufficient data and information to support the safety of (R)-1,3-butanediol for its intended uses. Human tolerance studies have reported a range of adverse symptoms, including headache, dizziness, euphoria, nausea, and gastrointestinal disturbance, after acutely administering (R)- or (R, S)-1,3-butanediol[1] at exposure levels at or near your estimates of dietary exposure. In addition, the narrative did not adequately address the adverse effects reported in animal studies after longer-term dietary exposure to 1,3-butanediol or their impact on the notifier's safety conclusion. Taken together, the available evidence concerning ingestion of 1,3-butanediol by humans and other animals suggests that your intended uses of (R)-1,3-butanediol lack an adequate margin of safety and, thus, result in dietary exposures that are at levels of concern. Given the substantive nature of these deficiencies, we recommended that you request that we cease our evaluation of the notice. In an email dated April 4, 2024, you requested that we cease our evaluation of GRN 001165.

In accordance with 21 CFR 170.275(b)(3), the text of this letter responding to GRN

[1] Given (R, S)-1, 3-butanediol is a racemic mixture, the effect levels associated with exposure to it may not reflect an exact estimate of the thresholds of response to (R)-1,3-butanediol.

001165 is accessible to the public at www.fda.gov/grasnoticeinventory.

Sincerely,

Susan J. Carlson -S

Digitally signed by Susan J. Carlson -S
Date: 2024.06.12 13:29:48 -04'00'

Susan J. Carlson, Ph.D.
Director
Division of Food Ingredients
Office of Food Additive Safety
Center for Food Safety
and Applied Nutrition