

GHS LEVEL; XRC(M) REPORT

Favored Client
 Suite 703, Jonnet Bldg; 4099 Wm Penn Hwy
 Monroeville, PA 15146
 ATTENTION: Donald Ewert

Report Date: March 17, 2022
 Material(s) Characterized: Whole Grain Sand
 RWS Project No: 2203007
 Analysis Service: GHS Level - XRC(M)

ANALYSIS: Respirable Crystalline Silica (RCS) by GHS-Compliant XRC(M) Analysis Techniques

This reporting is provided as an integral part of UN-GHS (HazCom 2012/WHMIS/REACH) classification requirements and includes an evaluation of Respirable Crystalline Silica (RCS) in your “12/20 Sand Buddy's Shipment #2” aka “Sand (Whole Grain)” As-Presented (AP) product. To facilitate toxicological profiling, this material underwent XRC(M) sequential processing including Wet Sieve Fractionation to <38µm and Vacuum Filtered Fractionation (VFF) to <10µm. The fractionation weight reduction outcome revealed that <0.01% wt% of this product occurs in the toxicologically relevant respirable size fraction <10µm. XRC(M) analysis outcomes were derived from independent measurements using Root Sum of Squares (RSS) across absolute uncertainties. The service also evaluated filter pore loading during processing with >60% of filter pores remaining open and available for <10µm particulate filtration upon completion.

Based on our investigation, data indicate that the potential amount of Respirable Crystalline Silica present within this product is less than the GHS/HazCom classification threshold of 0.1 wt% as well as our Prop-65 detection threshold of <0.01%. Thus, the respirable fraction in this product is considered Non-Detectable under both classification systems.

Analysis Descriptions		Crystalline Silica In AP Product as Reported in SDS (Weight %)	Respirable Fraction in AP Product by VFF (Weight %)	Respirable Crystalline Silica (RCS) In AP Product by XRC(M) (Weight %)
Client Product	RWS Sample ID's			
Whole Grain Sand	2203007-5	99.5	<0.009	<0.01

In accordance with UN-GHS regulations, we recommend that this material be exempt from classification and labeling due to the absence of a toxicologically relevant respirable fraction and hereby offer the following SDS Section 3 language:

3.2 Hazardous Components

Per XRC(M) analysis, which combines the analytical capabilities of X-Ray Diffraction (X), Raman Spectroscopy (R) Computer Controlled Scanning Electron Microscopy/Energy Dispersive Spectroscopy (C) and Inductively Coupled Plasma/Atomic Emission Spectrophotometry (M) to conduct particle-by-particle inter-instrumental physicochemical/mineralogical analysis – any naturally occurring respirable particulate that may exist in this product is inextricably bound, environmentally unavailable and at a de minimis concentration. Thus, in its current and anticipated future physical state, the product is incapable of causing toxicologically relevant inhalation exposure, under either normal conditions of use or extreme upset.

Authorized Signature


 Donald H. Ewert, Toxicology Services

Date 03/16/22