A

Absolute bioavailability
: The fraction (or percentage) of an ingested (or dermally applied, as applicable) dose that is absorbed and reaches systemic circulation.

Anion
: A negatively charged ion.

B

Bioaccessibility
: Refers to the results from chemical extraction tests that have been developed to try to simulate or predict the RBA of chemicals from soil. In this context "bioaccessibility" is interchangeable with "in vitro extraction testing," wherein experimental systems have been developed to assess the potential for human exposure to chemicals in soil by capturing a critical component that affects bioavailability.

Bioavailability
: For assessing potential exposures from environmental media, bioavailability refers to the portion of the total quantity of a chemical present that is absorbed by a living organism (Klassen 2013), and reaches the central (blood) compartment, whether exposure occurs via the GI tract, skin, or lungs (NEPI 2000).

C

Cation
: A positively charged ion.

cytochrome P450
: A large group of intracellular enzymes involved in the oxidative metabolism of a broad spectrum of endogenous and exogenous chemicals, particularly abundant in the liver.

H

Human health risk assessment (HHRA)
: The process of characterizing the nature and magnitude of health risks to humans from exposure to chemicals and other stressors that may be present in the environment (USEPA 2015a).

I

In vitro method
: Experiment or procedure performed under controlled laboratory conditions and outside an organism, for example inside a test tube or culture dish. The **bioaccessibility** tests described in this guidance are in vitro methods.

In vivo method
: Experiment or procedure performed using living organisms. The **bioavailability** tests described in this guidance are in vivo methods.

O

Oxyanion
: An anion containing one or more oxygen atoms bonded to another element.

R

Relative oral bioavailability (RBA)
: Refers to the ratio of the absorption of a chemical from soil, relative to the absorption in the exposure medium used in the critical toxicity study (the study that forms the basis for the cancer slope factor or reference dose).

S

Site-specific bioavailability assessment

The process of determining the relative oral bioavailability (RBA) of a specific chemical contaminating the soils at a site. The assessment includes identifying specific soil samples, selecting and conducting test methods, interpreting laboratory results, evaluating uncertainties in the measurements, and estimating RBA values for the site.

Soil

An unconsolidated mixture of mineral matter, organic matter, and pore space filled with air (soil gas) and water.

V

Validation

procedure to ensure that a method or a process is fit for its intended purpose. In the context of bioavailability considerations, validation ensures that a given in vitro bioaccessibility method can predict the RBA of a contaminant in a specific soil type accurately and reliably enough for use in human health risk assessment. Validation can be achieved by experimentally measuring a set of performance parameters including, but not limited to, accuracy, precision, selectivity, limit of detection, limit of quantitation. Different agencies may have different requirements to consider a method as validated.