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Chain of custody — Mass balance — Requirements and guidelines

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Foreword

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This document was prepared by Technical Committee ISO/TC 308, *Chain of custody*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

The mass balance model is one of five chain of custody models outlined in ISO 22095. A mass balance model offers different methods for organisations to mix or co-process inputs with and without specified characteristics while transparently documenting the movement of the inputs and their specified characteristics. This is to ensure that the credits or specified characteristics are appropriately accounted for and attributed to outputs within the same system boundary.

NOTE Mixing and co-processing includes activities where those in the value chain (i.e. brokers) do not physically mix or co-process mass balanced material or products.

A mass balance model is ideally suited for certain situations, such as when identity preserved, segregated, or controlled blending chain of custody models are not feasible. For instance, in some supply chains, materials or products with specified characteristics are mixed or co-processed with materials or products without specified characteristics. New materials or products are then produced. It is not possible to distinguish which of these new materials or products were derived from inputs with, and without, specified characteristics. However, the quantity of input with specified characteristics, such as renewable feedstock or fair trade labour practices, are in the system. Therefore, it becomes appropriate to pass forward those specified characteristics through a chain of custody model. Many industries currently use a mass balance model including transportation, agriculture, textiles, forestry, construction, chemicals, metals, steel, energy, glass, plastics, organics and inorganics.

However, the mass balance model may be applied differently in the market based on the criteria selected. This may create confusion and reduce its credibility among consumers, policy makers, standard setters, and other stakeholders. This document provides guidance to explain the mass balance chain of custody model and limit the risk of confusion on mass balance model communication (for example claims) in the marketplace and throughout the value chain.

This document helps organizations outline technical choices, define system boundaries, and specify methods of attribution. In addition, it provides guidance on communication and claims.

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Chain of custody — Mass balance — Requirements and guidelines

1 Scope

This document provides requirements and guidelines for the application of the mass balance chain of custody model, as defined in ISO 22095, to any material or product flow within mass balance systems, including how to attribute specified characteristics to flows of such processes.

This document provides requirements and guidelines for the following matters, amongst others:

- differentiations from controlled blending and book and claim models;
- general requirements for organizations active in a mass balance chain of custody model;
- system boundaries including geography and time;
- conversion factors;
- the rolling average percentage method;
- the credit method;
- transparency, communication and claims.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 22095:2020, *Chain of custody — General terminology and models*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 22095 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

administrative document

documentation that uniquely identifies the entitlement to claim the ownership of the *specified characteristics* (3.28) of materials or products at the respective point in the chain of custody

3.2

administrative document flow

process that uniquely identifies the entitlement to the claim of ownership and the transfer of the claim of ownership of the *specified characteristics* (3.28) of materials or products through the chain of custody