

13.0 Reporting

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13.1 Introduction and Scope of Effort

This section of the Chemical eStandards document defines the data exchange interfaces necessary to support the interchange of product movement data among partners.

13.1.1 ProductMovementReport Messages

The following business transactions are discussed in this section.

Product Movement Report

The Product Movement Report transaction takes place between the Reporting Entity and the Receiver. This message can be sent as single transaction report, or as a batch message. The Product Movement Report communicates changes in physical location or ownership of product (e.g. sale, consignment, return, stock transfer, stock adjustment).

13.1.2 Key Scope Assumptions

- All messages may be used in direct Business-to-Business (B2B) or through a marketplace.
- All messages were designed to facilitate communication between the Reporting Entity and the Receiver.
- The Reporting Entity does not need to have any involvement in the business transaction (e.g. sale, consignment, return, stock transfer) underlying the product movement and therefore does not need to be the Buyer, Seller, Consignee, or physical origin or destination associated with the product movement.
- The Receiver does not need to have any involvement in the business transaction (e.g. sale, consignment, return, stock transfer) underlying the product movement and therefore does not need to be the manufacturer, Buyer, Seller, Consignee, or physical origin or destination associated with the product movement.
- The ProductMovementReport message may be used in either real-time or batch mode transmission.
- The use of product movement messages was not investigated for Reporting Entity to Marketplace interactions, but there are no known limitations for their use in these interactions.
- The Receiver can utilize the information contained in the product movement report for a variety of different purposes; however, from the perspective of the Reporting Entity the transaction can be viewed consistently.
- The Reporting Entity can report the information resulting from the business transaction (e.g. sale, consignment, return, stock transfer) underlying the product movement to more than one Receiver by transmitting additional messages to the appropriate Receivers.
- A single ProductMovementReport may contain information from more than one Reporting Entity.
- A single ProductMovementReport may contain multiple transactions within one transmission (batch reporting).

While the Product Movement Report is about the movement of product that information is currently not always captured electronically until the time of invoicing. Therefore the transaction has historically been initiated at the time of invoice rather than the time of shipping. The message is designed to support the existing situation as well as the eventual move to being triggered on shipping rather than on invoice.

13.1.3 Key Business Model Assumptions

Pre-Conditions that exist prior to generating a Product Movement Report transaction:

- Before a Product Movement Report may be processed, the Reporting Entity must be established in the Receiver's system.

Business assumptions that govern the exchange of messages:

- A ProductMovementReport must contain at least one ProductMovementTransaction, which must contain at least one ProductMovementProductLineItem.
- The Reporting Entity will revise corrections or changes to information previously transmitted through a ProductMovementReport by sending appropriate transactions to reverse the original information followed by the correct information.

Post-Conditions that are anticipated after messages are sent:

- It is the responsibility of the Seller to decide whether to do business with the Buyer, having evaluated such things as a Buyer's credit worthiness, reputation, and product stewardship.

13.2 Business Process Information

13.2.1 Business Process Descriptions

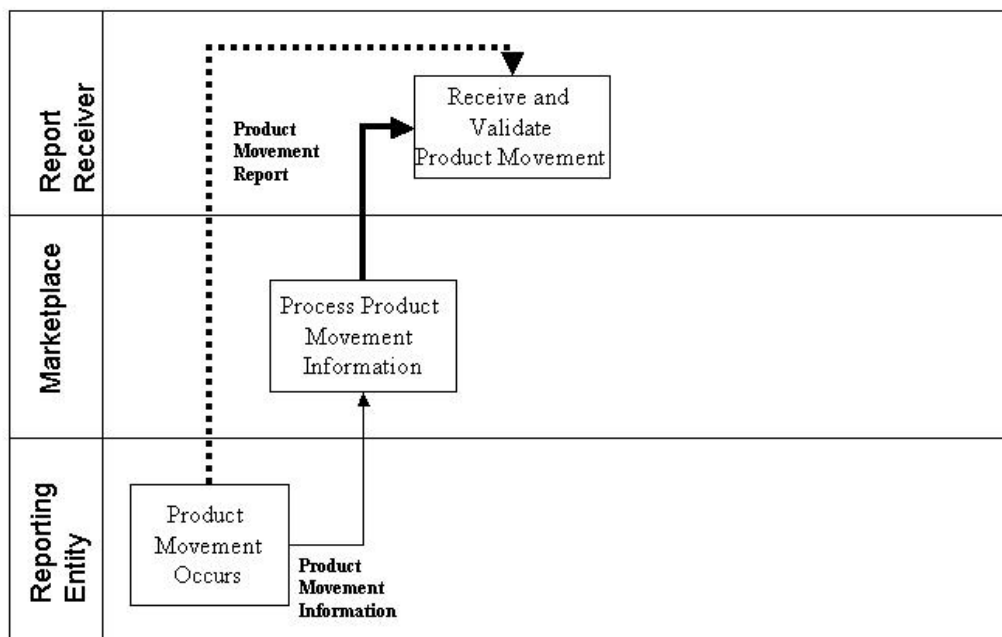
The Product Movement Report is initiated when a Reporting Entity recognizes a change in physical location or ownership of a product under their control.

The Business Process Model for Product Movement Report using either the Marketplace or B2B models is depicted in the following diagram. Solid thick lines illustrate the transaction between the Marketplace and Receiver.

13.2.2 Business Process Diagrams

The general business process model for the qualification and identification of Buyers via a Marketplace is depicted in the following diagram. Solid thick lines illustrate the transaction between the Marketplace and Seller. Solid thin lines illustrate the Buyer to Marketplace transactions (ie: communications via phone, fax, or e-mail) that are not included in these standards.

Product Movement Reporting



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Figure Product Movement Reporting transactions

13.2.3 Business Scenarios

Specific scenarios that initiate a Qualification Request transaction followed by a Qualification Response are presented below, along with hyperlinks to sample messages that illustrate the use of these transactions.

The following scenarios cause the creation of a Product Movement Report and their corresponding actions:

Product Movement Report – Wholesale transaction triggered from Invoice

A distributor (reporting entity) wholesales product to a retailer and invoices the retailer. The distributor generates a single line Product Movement Report from the invoice and sends it to the manufacturer (receiving entity).

Product Movement Report – End User Sale

Retailer A sells a product to an end user. Retailer B sells two products to an end user. Both retailers invoice their respective end users. The Distributor (reporting entity) generates a single Product Movement Report from the invoices provided by both Retailers and sends it to the manufacturer (receiving entity).

Product Movement Report – Stock Transfer triggered off shipment

A distributor transfers product between locations. The distributor (reporting entity) generates a single line Product Movement Report from the shipment information and sends it to the manufacturer (receiving entity).

Product Movement Report – Return

An end user returns product to the retailer. The retailer (reporting entity) generates a single line Product Movement Report and sends it to the manufacturer (receiving entity).

Product Movement Report – Correction

The information transmitted in the first scenario was incorrect. The distributor sent the incorrect product. To correct this problem the distributor will send a Wholesale Return to reverse the original transaction and a subsequent Wholesale transaction for the correct product. The distributor could send this as two separate Product Movement Reports or include both of them in a single message. This sample uses a single message.

13.3 Product Movement Report

The Product Movement Report transaction takes place between the Reporting Entity and the Receiver. The Product Movement Report communicates changes in physical location or ownership of product (e.g. sale, consignment, return, stock transfer, stock adjustment).

13.3.1 Product Movement Report Data Models & Structures

The Product Movement Report message consists of the Header and ProductMovementReportBody; with the two child elements of ProductMovementReportProperties and ProductMovementReportDetails contained in the Body.

Element Name	E/S	Notes
ProductMovementReport	(S)	Root level element for the Product Movement Report transaction.
Header	(S)	Standard Header found in all messages
ProductMovementReportBody	(S)	Structure that contains the information for this message.

13.3.1.1 ProductMovementHeader

Element Name	E/S	Notes
Header	(S)	Standard Header found in all messages
ThisDocumentIdentifier	(S)	Contains the DocumentIdentifier element
ThisDocuementDateTime	(S)	Contains the DateTime element
RequestingDocumentIdentifier	(S)	Contains the DocumentIdentifier element of the requesting party
RequestingDocumentDateTime	(S)	Contains the DateTime element for the requesting party.
From	(S)	Contains the PartnerInformation structure for the party that is sending the message.
To	(S)	Contains the PartnerInformation structure for the party the message is being sent to.

13.3.1.2 ProductMovementReportBody

Element Name	E/S	Notes
ProductMovementReportBody	(S)	Root level element for the Product Movement Report Body structure.
ProductMovementReportProperties	(S)	Structure containing information on the reporting entity
ProductMovementReportDetails	(S)	Structure containing the transaction structures for Reporting entity and the transactions

13.3.1.3 ProductMovementReportProperties

Element Name	E/S	Notes
ProductMovementReportProperties	(S)	Root element for the Report Properties.
MarketPlaceInformation	(S)	Structure to identify the internal information and references of an exchange inside the marketplace. See Common Data Elements for a description of MarketPlaceInformation.
LanguageCode	(E)	The language used in the transaction. Attribute: Domain - Identifies external list of language codes.

CurrencyCode	(E)	The currency used for monetary amounts in the transaction. Attribute: Domain - Identifies external list of currency codes.
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13.3.1.4 ProductMovementReportDetails

Element Name	E/S	Notes
ReportingEntity	(S)	Identifies the trading partner who is reporting this product movement report. This is not necessarily the entity that is transmitting the XML message. Uses the PartnerInformation structure and ReferenceInformation structure. See Common Data Elements for a description of these structures.
ProductMovementTransactions	(S)	Structure that contains the set of product movements being reported by the ReportingEntity. Attribute: ProductMovementReportType – identifies the type of data being reported.
ProductMovementTransaction	(S)	Structure that contains the information for a specific product movement transaction. Each ProductMovementTransaction can be equated to an invoice, ship notice, or other appropriate business transaction.

13.3.1.5 ProductMovementTransaction

Element Name	E/S	Notes
ProductMovementTransactionProperties	(S)	Structure that contains the macro-level information about the specific Product Movement Transaction. Attribute: ProductMovementType – identifies the specific movement type for this transaction (e.g. Stock Sale, Consignment, Stock Transfer). Attribute: SaleOrReturnTypes – is optional and identifies whether the ProductMovementType is considered a Wholesale or End User transaction.
ProductMovementTransactionPartners	(S)	Structure that defines the trading partners involved in this Product Movement Transaction
ProductMovementTransactionDetails	(S)	Structure that defines the details of the Product Movement Transaction.

13.3.1.6 ProductMovementTransactionProperties

Element Name	E/S	Notes
ReferenceInformation	(S)	Structure providing a reference to additional information about the transaction. Uses the DocumentReference structure to identify an external document. Attribute: ReferenceType – identifies the type of document used for reference.
EventDateTime	(S)	Structure that contains a date time. The date contained is defined by the EventDateType attribute. Attribute: EventDateType – Indicates the type of Date (e.g. Invoice Date, Ship Date).
LanguageCode	(E)	The language used in the transaction. Attribute: Domain - Identifies external list of language codes.
CurrencyCode	(E)	The currency used for monetary amounts in the transaction. Attribute: Domain - Identifies external list of currency codes.
Invoice Total	(S)	This is the wrapper for the monetary structure where the total amount of an invoice is recorded. Note: It is anticipated that this would be used instead of the Confirmed Price at the line item, not in addition. There are situations where individual line items are not priced separately.
SpecialInstructions	(E)	Text field that allows for any special instructions relevant to the transaction. Attribute: InstructionType – Indicates the type of instructions.