

# Transaction Security Requirements

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## Appendix C - Transaction Security Requirements

Each Chem eStandards message has its own security requirements.

As outlined in *Chem eStandards Envelope and Security Version 3.0*, transaction security implies the following:

- **Authentication:** indicates whether mutual authentication is required for a particular transaction.
- **Digital Signature-** indicates whether a PKCS-7 digital signature of non-zero length that conforms to RNIF requirements should accompany the object.
- **Non-repudiation:** implies the following:
  - The object has been signed.
  - Both initiator and recipient of the object store that object's digital signature including object message digest.
  - Both initiator and recipient of the object store supporting information (such as signer certificate, certificate authority and public key, secure time stamp, and unambiguous reference to the then-current CRL).

**Table 1:** Security Requirements for Version 4.0 Chem eStandards messages:

Section	Transaction Name	Authentication	Digital Signature	Non-repudiation
Customer	QualificationRequest	Yes	Yes	No
Customer	QualificationResponse	Yes	Yes	Yes
Catalog and RFQ	CustomerSpecificCatalogUpdate	Yes	Yes	Yes
Catalog and RFQ	ProductCatalogUpdate	Yes	Yes	Yes
Catalog and RFQ	RequestForQuote	Yes	Yes	No
Purchase Order	OrderChange	Yes	Yes	Yes
Purchase Order	OrderCreate	Yes	Yes	Yes
Purchase Order	OrderResponse	Yes	Yes	Yes
Purchase Order	OrderStatusRequest	Yes	Yes	No
Purchase Order	OrderStatusResponse	Yes	Yes	No
Purchase Order	PriceAndAvailabilityRequest	Yes	Yes	No
Purchase Order	PriceAndAvailabilityResponse	Yes	Yes	No
Logistics	CarrierWeights	Yes	Yes	Yes
Logistics	FreightBill	Yes	Yes	Yes

APPENDIX C - TRANSACTION SECURITY REQUIREMENTS

<b>Section</b>	<b>Transaction Name</b>	<b>Authentication</b>	<b>Digital Signature</b>	<b>Non-repudiation</b>
Logistics	LoadTenderMotor	Yes	Yes	Yes
Logistics	LoadTenderOcean	Yes	Yes	Yes
Logistics	LoadTenderRail	Yes	Yes	Yes
Logistics	LoadTenderResponse	Yes	Yes	Yes
Logistics	ShipmentStatusRequest	Yes	Yes	No
Logistics	ShipmentStatus	Yes	Yes	No
Logistics	ShipmentInstructions	Yes	Yes	Yes
Logistics	ShipNotice	Yes	Yes	Yes
Logistics	ReceiptNotice	Yes	Yes	Yes
Financials	AcceptanceNotification	Yes	Yes	Yes
Financials	Invoice	Yes	Yes	Yes
Financials	InvoiceResponse	Yes	Yes	Yes
Financials	Payment	Yes	Yes	Yes
Financials	PaymentDetail	Yes	Yes	Yes
Financials	PaymentResponse	Yes	Yes	Yes
Forecasting	DeliveryReceipt	Yes	Yes	Yes
Forecasting	DeliveryReceiptResponse	Yes	Yes	Yes
Forecasting	DemandForecast	Yes	Yes	Yes
Forecasting	DemandForecastResponse	Yes	Yes	Yes
Forecasting	DemandPlan	Yes	Yes	Yes
Forecasting	DemandPlanResponse	Yes	Yes	Yes
Forecasting	InventoryActualUsage	Yes	Yes	Yes
Forecasting	InventoryActualUsageResponse	Yes	Yes	Yes
Forecasting	ReplenishmentProposalCancel	Yes	Yes	Yes
Forecasting	ReplenishmentProposalChange	Yes	Yes	Yes
Forecasting	ReplenishmentProposalRequest	Yes	Yes	Yes
Forecasting	ReplenishmentProposalResponse	Yes	Yes	Yes
Forecasting	SupplyPlan	Yes	Yes	Yes

<b>Section</b>	<b>Transaction Name</b>	<b>Authentication</b>	<b>Digital Signature</b>	<b>Non-repudiation</b>
Forecasting	SupplyPlanResponse	Yes	Yes	Yes
Exchange Interactions	PostingAccept	Yes	Yes	Yes
Exchange Interactions	PostingAcceptResponse	Yes	Yes	Yes
Exchange Interactions	PostingCancel	Yes	Yes	Yes
Exchange Interactions	PostingCancelResponse	Yes	Yes	Yes
Exchange Interactions	PostingChange	Yes	Yes	Yes
Exchange Interactions	PostingCreate	Yes	Yes	Yes
Exchange Interactions	PostingResponse	Yes	Yes	Yes
Exchange Interactions	PostingStatusRequest	Yes	Yes	No
Exchange Interactions	PostingStatusResponse	Yes	Yes	Yes
Product Information	CertificateOfAnalysis	Yes	Yes	Yes
Product Information	QualityTestingReport	Yes	Yes	Yes
Credit Upon Proof of Sale	CostSupportCreditRequest	Yes	Yes	Yes
Credit Upon Proof of Sale	CostSupportCreditRequest	Yes	Yes	Yes
Credit Upon Proof of Sale	CostSupportCreditRequest	Yes	Yes	Yes
Credit Upon Proof of Sale	CostSupportCreditRequest	Yes	Yes	Yes
Credit Upon Proof of Sale	CostSupportCreditRequest	Yes	Yes	Yes
Reporting	ProductMovementReport	Yes	Yes	Yes

For further explanation of the transaction and security requirements refer to the *Chem eStandards Envelope and Security* publication.