

Contents	Page
Foreword.....	vii
<b>1 Scope.....</b>	<b>1</b>
<b>2 Normative references.....</b>	<b>1</b>
<b>3 Terms, definitions, and abbreviated terms.....</b>	<b>2</b>
3.1 Terms and definitions.....	2
3.2 Abbreviated terms.....	3
<b>4 General provisions.....</b>	<b>4</b>
4.1 Application area for the core data elements.....	4
4.2 Types of data elements defined by this document.....	5
4.3 Structure of the data element descriptions.....	6
4.4 Use of XML name space.....	6
4.4.1 XSD name space.....	6
4.4.2 ISO 28005 name space.....	7
4.5 Creating a main XML schema file.....	7
4.6 Code set specification schema.....	7
4.7 Principle for creating a message file with core data elements.....	8
4.8 Structure of data type definitions.....	8
4.8.1 General.....	8
4.8.2 Clause and data type name.....	8
4.8.3 Definition.....	8
4.8.4 Type defined as XSD code.....	8
4.8.5 Representation.....	8
4.9 Principles for defining enumerated types.....	9
4.10 Character sets for data fields.....	9
4.11 No use of XML attributes.....	9
4.12 Empty tags.....	9
4.13 Defaults for minOccurs and maxOccurs.....	9
4.14 Order of child elements in XSD templates.....	9
<b>5 Adapted XSD data types.....</b>	<b>9</b>
5.1 Introduction.....	9
5.2 epc:anyURI — Generalized URI.....	10
5.3 epc:boolean — Boolean flag.....	10
5.4 epc:date — General date.....	10
5.5 epc:dateTime — Time and date, with time zone.....	10
5.6 epc:decimal — Decimal number.....	11
5.7 epc:duration — Time duration.....	11
5.8 epc:int — Integer number.....	12
5.9 epc:string — General string.....	12
5.10 epc:token — Computer-understandable string.....	12
<b>6 General data types.....</b>	<b>13</b>
6.1 Introduction.....	13
6.2 epc:AttachmentType — Reference to an attached document.....	13
6.3 epc:ContactInfoType — Contact information.....	13
6.4 epc:CommunicationNumberType — Communication number information.....	14
6.5 epc:CountryCodeContentType — Country identification.....	14
6.6 epc:GenderContentType — Enumeration type for gender.....	14
6.7 epc:LocationOnBoardType — Physical location on board.....	15
6.8 epc:MeasureType — A physical measurement.....	15
6.9 epc:NameType — Name of person.....	15
6.10 epc:OrganisationType — Description of an organization.....	16
6.11 epc:PostalAddressType — A postal mail address.....	16
6.12 epc:VersionType — Version code.....	17

6.13	epc:DateTimeType — DateTime with type	17
6.14	epc:CrewDutyType — Duty onboard or on shore	18
<b>7</b>	<b>Core data types</b>	<b>18</b>
7.1	Introduction	18
7.2	Ship identity and contacts data types	19
7.2.1	Class diagram	19
7.2.2	epc:AgentType — The ship's agent	19
7.2.3	epc:CompanyType — The ship's operating Company	19
7.2.4	epc:InmarsatCallNumberType — Inmarsat call number to ship	20
7.2.5	epc:MasterType — Data for the Ship Master (Deprecated)	20
7.2.6	epc:ShipIDType — Ship identity	20
7.2.7	epc:AuthenticatorType — The authenticator of the Information	21
7.2.8	epc:CompanySecurityOfficerType — The ship's company security officer	21
7.3	Cargo data types	22
7.3.1	Class diagram	22
7.3.2	Non-core data types	22
7.3.3	epc:CargoDataType — Detailed description of cargo	23
7.3.4	epc:CargoOverviewType — Brief description of onboard cargo	30
7.3.5	epc:DutiableCrewEffectsType — List of crew effects that may be dutiable	30
7.3.6	epc:GeneralDescriptionOfDGType — General description of dangerous cargo	31
7.3.7	epc:ShipStoreType — Description of ship's dutiable stores	32
7.3.8	epc: DangerousGoodsCargoIndicatorType	32
7.4	Crew and passenger data	33
7.4.1	Class diagram	33
7.4.2	Non-core data types	33
7.4.3	epc:CrewListType — Information about all crew onboard	36
7.4.4	epc:PassengerListType — Information about passengers	36
7.4.5	epc:OtherPersonListType — Information about other persons on board	37
7.4.6	epc:PersonsOnboardNumberType — Number of persons onboard	37
7.5	Class and ship certificates	38
7.5.1	Class diagram	38
7.5.2	epc:CertificateType — Certificate description	38
7.5.3	epc:ISSCertificateStatusType — Security certificate information	40
7.5.4	epc:CertificateListType — List of certificates	40
7.5.5	epc:ShipClassType — Class Notation for Ship	41
7.5.6	epc:INFClassContentType — Irradiated nuclear fuel class	41
7.6	Security data types	42
7.6.1	Class diagram	42
7.6.2	epc:CurrentPortSecurityLevelType — Current security level on ship	42
7.6.3	epc:CurrentShipSecurityLevelType — Current security level in port	42
7.6.4	epc:PortCallListsType — Last ten port calls	43
7.6.5	epc:ShipToShipActivityListType — Ship-to-ship activities	44
7.6.6	epc:HasSecurityPlanType — Approved security plan	44
7.6.7	epc:SecurityLevelContentType — ISPS security level	45
7.6.8	epc: SecurityOtherMattersToReportType — Other Security Matters to Report at a Port Call	45
7.7	Service-related data types	45
7.7.1	Class diagram	45
7.7.2	epc:EPCMessageHeaderType — Standard header for an EPC message	46
7.7.3	epc:OtherServiceRequestType — Additional service request	48
7.7.4	epc:RequestStatusType — Status of a service request	48
7.7.5	epc:RemarksType — General remarks	49
7.8	Ship particulars types	49
7.8.1	General	49
7.8.2	epc:BeamType — Beam of vessel	49
7.8.3	epc:DeadWeightType — Dead weight	49
7.8.4	epc:DoubleBottomContentType — Double bottom or sides indicator	50
7.8.5	epc:GrossTonnageType — Gross tonnage	50

7.8.6	epc:IceClassType — Ship ice class.....	50
7.8.7	epc:LengthOverallType — Length overall.....	51
7.8.8	epc:NetTonnageType — Net tonnage.....	51
7.8.9	epc:SummerDraughtType — Summer draught.....	52
7.8.10	epc:ShipTypeContentType — Ship type code.....	52
7.9	Vessel operation data types.....	52
7.9.1	General.....	52
7.9.2	epc:AirDraughtType — Air draught.....	52
7.9.3	epc:ArrivalDraughtType — Arrival draught.....	52
7.9.4	epc:ArrivalDepartureType — Arrival or departure flag.....	53
7.9.5	epc:ATAType — Actual time of arrival (Deprecated).....	53
7.9.6	epc:ATDType — Actual time of departure (Deprecated).....	53
7.9.7	epc:ATPType — Actual time of passage.....	53
7.9.8	epc:BulkLoadUnloadDataType — Data required for safe loading and unloading.....	54
7.9.9	epc:CallPurposeType — Purpose of call.....	56
7.9.10	epc:DepartureDraughtType — Departure draught.....	56
7.9.11	epc:ETAType — Estimated time of arrival (Deprecated).....	56
7.9.12	epc:ETDType — Estimated time of departure (Deprecated).....	57
7.9.13	epc:ETPType — Estimated time of passage.....	57
7.9.14	epc:NavigationalStatusContentType — Navigational status.....	57
7.9.15	epc:NextReportTimeType — Time of next report.....	57
7.9.16	epc:OBOLoadUnloadDataType — Data required for safe loading and unloading of OBO.....	58
7.9.17	epc:PeriodOfStayType — Period of stay.....	58
7.9.18	epc:RadioCommunicationsType — Radiocommunication active.....	59
7.9.19	epc:ROBBunkersType — Bunkers remaining onboard.....	59
7.9.20	epc:ShipDefectsType — Any defects of important ship equipment.....	60
7.9.21	epc:ShipStatusType — Ship status information.....	60
7.9.22	epc:VoyageNumberType — Voyage identification code.....	61
7.9.23	epc:VoyageDescriptionType — Brief description of voyage.....	61
7.9.24	epc:WeatherInformationType — Weather information as observed.....	62
7.10	Location types.....	62
7.10.1	Class diagram.....	62
7.10.2	Non-core data types.....	63
7.10.3	epc:WaypointListType — Waypoint and Waypoint list.....	66
7.10.4	epc:VoyageEventListType — Time and position for voyage events.....	66
7.10.5	epc:PortOfArrivalType — Arrival port.....	67
7.10.6	epc:PortOfDepartureType — Departure port.....	67
7.10.7	epc:NextPortOfCallType — Next port of call.....	68
7.10.8	epc:LastPortOfCallType — Last port of call.....	68
7.10.9	epc:BerthArrivalType — Identification of a berth and an arrival time.....	69
7.10.10	epc:BerthDepartureType — Identification of a berth and a departure time.....	69
7.10.11	epc:BerthPositionArrivalType — Position inside a berth and the arrival time.....	69
7.10.12	epc:BerthPositionDepartureType — Position inside a berth and the departure time.....	70
7.10.13	epc:AnchorageArrivalType — Anchorage area and arrival time.....	70
7.10.14	epc:AnchorageDepartureType — Anchorage area and departure time.....	70
7.10.15	epc:TerminalArrivalType — Terminal area and arrival time.....	70
7.10.16	epc:TerminalDepartureType — Terminal area and departure time.....	71
7.10.17	epc:FacilityArrivalType — Facility area and arrival time.....	71
7.10.18	epc:FacilityDepartureType — Facility area and departure time.....	71
7.11	Waste and environmental data types.....	72
7.11.1	General.....	72
7.11.2	epc:BallastStatusType — Status of ship's ballast water when in port.....	72
7.11.3	epc:WasteDisposalRequirementsType — Ship's requirements for waste disposal.....	72
7.11.4	epc:WasteInformationType — Waste information.....	73
7.12	Health data types.....	74

7.12.1	Class diagram	74
7.12.2	epc: HealthDataType — Health information for the ship	75
7.12.3	epc: PersonHealthParticularsType — Health information for a person on board	77
<b>Annex A (normative) EPC Request Body</b>		<b>80</b>
<b>Annex B (normative) IMO FAL mapping</b>		<b>83</b>
<b>Annex C (informative) Example of IMO-ISO Mapping</b>		<b>95</b>
<b>Annex D (normative) Certificate codes</b>		<b>96</b>
<b>Annex E (normative) Classification society codes</b>		<b>98</b>
<b>Annex F (normative) Onboard and shore duty codes</b>		<b>100</b>
<b>Annex G (normative) Waste type codes</b>		<b>103</b>
<b>Annex H (normative) Message type codes</b>		<b>104</b>
<b>Annex I (normative) Service type codes</b>		<b>106</b>
<b>Annex J (informative) Examples of cargo and package codes</b>		<b>107</b>
<b>Annex K (informative) Common unit codes</b>		<b>108</b>
<b>Annex L (informative) UN hazard classes</b>		<b>109</b>
<b>Annex M (informative) Ship type codes</b>		<b>112</b>
<b>Annex N (informative) UNECE purpose of call codes</b>		<b>115</b>
<b>Annex O (normative) Crew and ship dutiable item code values</b>		<b>116</b>
<b>Annex P (informative) Dangerous goods marine pollutant type</b>		<b>117</b>
<b>Annex Q (normative) Code list for "Reason why ship has no valid ISSC or interim ISSC certificate"</b>		<b>118</b>
<b>Annex R (normative) Ship security measures and ship additional security measures</b>		<b>119</b>
<b>Annex S (informative) Short overview of XSD coding</b>		<b>120</b>
<b>Bibliography</b>		<b>122</b>