
International Classification for Standards

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Introduction

1 Purpose of the ICS

1.1 The ICS (International Classification for Standards) is intended to serve as a structure for catalogues of international, regional and national standards and other normative documents, and as a basis for standing-order systems for international, regional and national standards. It may also be used for classifying standards and normative documents in databases, libraries, etc.

1.2 The ICS should facilitate the harmonization of information and ordering tools such as catalogues, selective lists, bibliographies, and databases on magnetic and optical media, thus promoting the world-wide dissemination of international, regional and national standards and other normative documents.

2 Description of the ICS

2.1 For the purposes of this document, the general term "standard" is applied to all international, regional and national normative documents, such as standards, technical reports, standardized profiles, technical specifications, technical regulations, guides, codes of practice, technology trends assessments, etc. and the drafts of such documents.

2.2 The ICS is a hierarchical classification which consists of three levels.

2.3 Level 1 covers 40 fields of activity in standardization, e.g. road vehicle engineering, agriculture, metallurgy. Each field has a two-digit notation, e.g.

43 *ROAD VEHICLE ENGINEERING*

2.4 The fields are subdivided into 392 groups (level 2). The notation of a group consists of the field notation and a three-digit group number, separated by a point, e.g.

43.040 *Road vehicle systems*

2.5 144 of the 392 groups are further divided into 909 sub-groups (level 3). The notation of a sub-group consists of the group notation and a two-digit number, separated by a point, e.g.

43.040.20 *Lighting, signalling and warning devices*

2.6 A number of group and sub-group titles are followed by scope notes and/or reference notes, indicated by asterisks and printed in italics in the ICS. A scope note, as a rule, lists subjects covered by a given group/sub-group or defines the subject of a given group/sub-group. A reference note refers to a subject, related to a given group/sub-group, which is covered by another group/sub-group.

2.7 All groups divided into sub-groups contain, with a few exceptions, a sub-group which covers the complete subject of the respective group. Such general subject sub-groups have notations terminating with ".01". For example, the group

07.100 *Microbiology*

contains as a first sub-group

07.100.01 *Microbiology in general*

which shall include standards covering the subject of microbiology in general, e.g. the standard

ISO 7954:1987, *Microbiology – General guidance for the enumeration of yeasts and moulds – Colony count technique at 25 degree C*

while standards covering medical microbiology, microbiology of water or food microbiology shall be included respectively in other specific sub-groups: 07.100.10, 07.100.20 or 07.100.30.

2.8 Most of the groups divided into sub-groups contain a sub-group having the notation terminating with ".99". Such sub-groups include standards on subjects which do not correspond either to the subjects of the general sub-groups or to the subjects of the specific sub-groups of the respective groups. For example, the subject of the standard

ISO 10945:1994, *Hydraulic fluid power – Gas-loaded accumulators – Dimensions of gas ports*

does not correspond either to the subject of the sub-group

23.100.01 *Fluid power systems in general*

or to the specific subjects of the sub-groups

23.100.10 *Pumps and motors*
23.100.20 *Cylinders*
23.100.40 *Piping and couplings*
23.100.50 *Control components*
23.100.60 *Filters, seals and contamination of fluids*

In this case, it shall be included in the sub-group

23.100.99 *Other fluid power system components*

The above rule does not apply in the ICS if all standards related to a group can be included either in the general sub-group or in the specific sub-groups.

For example, the group

21.100 *Bearings*

contains the general subject sub-group

21.100.01 *Bearings in general*

and specific sub-groups

21.100.10 *Plain bearings*

21.100.20 *Rolling bearings*

The group does not contain a sub-group

21.100.99 *Other bearings*

since all bearings belong only to two types of bearings: plain bearings and rolling bearings.

3 Rules for the use of the ICS

3.1 The latest edition of the ICS with the subsequent issues of the ICS Update should be used for indexing standards and other normative documents and their drafts. Before indexing standards for the first time, the indexer should first carefully study the present rules and the ICS structure.

3.2 Standards should be classified according to their subjects. The indexer should first identify the appropriate field for a given subject, then allocate the appropriate group notation, and, further, the sub-group's notation if the group is subdivided. For example, the standard

ISO 3412:1992, *Road vehicles – Screened and waterproof spark-plugs and their connections – Types 1A and 1B*

belongs to the field

43 *Road vehicle engineering*

The appropriate group within the field is

43.060 *Internal combustion engines for road vehicles*

and the appropriate sub-group within the group is

43.060.50 *Electrical equipment. Control systems*

If the field of application of a standard is not clear from its content, indexers may take into account the scopes of the relevant technical committee, subcommittee and working group responsible for the development of the standard.

3.3 The alphabetical index of the ICS may be used as a supplementary tool for identifying the appropriate field, group, sub-group, but the notations found in the index shall be carefully verified against the systematic table. The reason is that only the systematic table contains the full information relating to a group notation, such as its title, the field to which it belongs, the subdivision into sub-groups, sometimes the scope note, and the reference note(s) showing its relationship with other group(s) or sub-group(s). Otherwise errors in indexing may occur.

3.4 It is recommended to use all levels available for classifying a given standard. For example, the standards

ISO 5358:1992, *Anaesthetic machines for use with humans*
ISO 7864:1993, *Sterile hypodermic needles for single use*
ISO 7740:1985, *Instruments for surgery – Scalpels with detachable blades – Fitting dimensions*

should be classified respectively in sub-groups 11.040.10, 11.040.25 and 11.040.30 (level 3); it is not recommended to allocate notation 11.040 (level 2) to the above standards since it may create difficulties in the exchange of ICS data between databases and will impede application of the ICS in multinational information systems.

3.5 Standards classified according to this classification may be included in more than one group or sub-group; e.g. the standard

ISO 7686:1992, *Plastics pipes and fittings – Opacity – Test method*

shall be included in the two sub-groups

23.040.20 *Plastics pipes*
23.040.45 *Plastics fittings*

while the standard

ISO 8159:1987, *Textiles – Morphology of fibres and yarns – Vocabulary*

shall be included in the three sub-groups

01.040.59 *Textile and leather technology (Vocabularies)*
59.060.01 *Textile fibres in general*
59.080.20 *Yarns*

However, it is recommended to avoid the allocation of more than four notations to one document.

3.6 Standards included in the groups

01.040 *Vocabularies*
01.060 *Quantities and units*
01.070 *Colour coding*
01.075 *Character symbols*

and the sub-groups

01.080.20 *Graphical symbols for use on specific equipment*
01.080.30 *Graphical symbols for use on mechanical engineering and construction drawings, diagrams, plans, maps and in other technical product documentation*
01.080.40 *Graphical symbols for use on electrical and electronics engineering drawings, diagrams, charts and in relevant technical product documentation*
01.080.50 *Graphical symbols for use on information technology and telecommunications technical drawings and in relevant technical product documentation*
17.140.20 *Noise emitted by machines and equipment*
17.140.30 *Noise emitted by means of transport*

shall also be included in other groups and/or sub-groups according to their subjects; e.g. the standard

ISO 1942-4:1989, *Dental vocabulary – Part 4: Dental equipment*

shall be included in the two sub-groups

01.040.11 *Health care technology (Vocabularies)*
11.060.20 *Dental equipment*

while the standard

ISO 6405-1:2004, *Earth-moving machinery – Symbols for operator controls and other displays – Part 1: Common symbols*

shall be included both in the sub-group

01.080.20 *Graphical symbols for use on specific equipment*

and in the group

53.100 *Earth-moving machinery*

3.7 A standard containing definitions which apply only for the purpose of that standard shall not be classified into the group

01.040 *Vocabularies*

3.8 Amendments, addenda and technical corrigenda to a standard shall have the same notations as the standard itself.

3.9 Standards for systems, components, spare parts and materials used for specific equipment, machines and installations should be classified in the respective groups and sub-groups containing standards for the equipment, machines and installations if the ICS does not contain groups or sub-groups specially designated for classifying the relevant systems, components, spare parts and materials. For example, standard

ISO 5696:1984, *Trailed agricultural vehicles – Brakes and braking devices – Laboratory test method*

should be included in the sub-group

65.060.10 *Agricultural tractors and trailed vehicles*

since the ICS does not contain a group/sub-group for braking systems of agricultural machinery, while the standard

ISO 4251-1:1998, *Tyres (ply rating marked series) and rims for agricultural tractors and machines – Part 1: Tyre designation and dimensions, and approved rim contours*

should be included in the sub-group

83.160.30 *Tyres for agricultural machinery*

3.10 Where a group is further subdivided into sub-groups, only the notations of the sub-groups shall be allocated to standards, e.g. the standard

ISO 4254-1:1989, *Tractors and machinery for agriculture and forestry – Technical means for ensuring safety – Part 1: General*

shall be classified under the title of the sub-group

65.060.01 *Agricultural machines and equipment in general*

and not under the title of the group

65.060 *Agricultural machines, implements and equipment*

3.11 If the subject of a standard covers two or more sub-groups within a group which contains only these sub-groups plus sub-groups with notations terminating with ".01" and/or ".99", i.e. the subject covers all of the specific sub-groups, that standard shall be classified under the sub-group which has the notation terminating with ".01", e.g. the standard

ISO 4829-1:1986, *Steel and cast iron – Determination of total silicon content – Reduced molybdosilicate spectrophotometric method – Part 1: Silicon contents between 0.05 and 1.0%*

shall be classified under the title of the sub-group

77.080.01 *Ferrous metals in general*

and not under the titles of the sub-groups

77.080.10 *Irons*
77.080.20 *Steels*

since irons and steels completely cover the ferrous metals subject.

Similarly, the standard

ISO 6632:1981 *Fruits, vegetables and derived products – Determination of volatile acidity*

shall be classified under the title of the sub-group

67.080.01 *Fruits, vegetables and derived products in general*

and not under the title of the sub-groups

67.080.10 *Fruits and derived products*
67.080.20 *Vegetables and derived products*

since

67.080 *Fruits. Vegetables*

contains only

67.080.01 *Fruits, vegetables and derived products in general*
67.080.10 *Fruits and derived products*
67.080.20 *Vegetables and derived products*

3.12 A sub-group, or a group which does not have sub-groups, may be further subdivided by the user into respectively either several units (level 4) or new sub-groups (level 3). For the purpose of distinguishing subdivisions (units or new sub-groups) from those given in the classification, new notations shall be created using a hyphen as a separator, followed by a two-digit number; e.g. the group:

53.100 *Earth-moving machinery*

may be subdivided into the following new sub-groups

- 53.100-01 *Earth-moving machinery in general*
- 53.100-10 *Tractors*
- 53.100-20 *Excavators*
- 53.100-30 *Loaders*
- 53.100-40 *Graders*
- 53.100-99 *Other earth-moving machinery*

However, such subdivisions should be used very restrictively and avoided wherever possible. The preferred solution should be to address the question to the ISO Central Secretariat which is responsible for the maintenance and development of the ICS.

3.13 A semicolon should be used for separating notations in printed documents. To provide consistency in the presentation of notations, they should be sorted in ascending numerical order, e.g. ICS notations for ISO 8159:1987 should be indicated as follows: ICS 01.040.59; 59.060.01; 59.080.20.

For data exchange, the rules set up in the second edition (1998) of the *ISONET Manual* should be used.

3.14 Fields

- 21 *MECHANICAL SYSTEMS AND COMPONENTS FOR GENERAL USE*
- 23 *FLUID SYSTEMS AND COMPONENTS FOR GENERAL USE*

and also the fields and the groups for which the scopes contain an indication that this field or group includes standards for general use, e.g.

- 13.110 *Safety of machinery*
**This group includes standards only for general use*

shall contain only standards for general use which may be applied by different industries. For example, the standard

- ISO 10317:1992, *Rolling bearings – Metric tapered roller bearings – Designation system*

which may be applied by different industries, shall be included in the sub-group

- 21.100.20 *Rolling bearings*

while standards

- ISO 6045:1987, *Shipbuilding and marine structures – Bearings for derrick goosenecks – Assemblies and components*

and

- ISO 14204:1998, *Aerospace – Airframe ball bearings, double-row, rigid, diameter series 0 – – Metric series*

which are designated for application by specific industries, shall be included respectively in the sub-groups related to those industries, namely

- 47.020.40 *Lifting and cargo handling equipment*

and

- 49.035 *Components for aerospace construction*

The standard

ISO 1167:1996, *Thermoplastic pipes for the conveyance of fluids – Resistance to internal pressure – Test method*

which is applied for general purposes and may be used by different industries, shall be included in the sub-group

23.040.20 *Plastic pipes*

while the standard

ISO 4437:1997, *Buried polyethylene (PE) pipes for the supply of gaseous fuels – Metric series – Specifications*

which is designated for specific purposes of natural gas handling, shall be included respectively in the group related to those specific purposes (from the point of view of using the product) and in the sub-group related to the relevant type of product (from the point of view of manufacturing the product), namely

75.200 *Petroleum products and natural gas handling equipment*

and

83.140.30 *Plastic pipes and fittings for non fluid use*

The standard

ISO/TR 12100-2:2003, *Safety of machinery – Basic concepts, general principles for design – Part 2: Technical principles*

shall be included in the group

13.110 *Safety of machinery*

while the standard

ISO 4254-1:1989, *Tractors and machinery for agriculture and forestry – Technical means for ensuring safety – Part 1: General*

shall not be included in the above group since it is designated for use by only one industry, the agricultural machinery engineering sector; the standard shall be included in the sub-group

65.060.01 *Agricultural machines and equipment in general*

3.15 If a group/sub-group has a reference note to another group/sub-group, the standards related to the subject indicated in the relevant reference note shall be classified in the referenced group/sub-group. For example, the sub-group

81.060.20 *Ceramic products*

contains the reference note

**Sanitary ceramic products, see 91.140.70*

therefore, standards for sanitary ceramic products shall be classified into the sub-group

and not into the sub-group

3.16 If an international standard is adopted as a regional and/or national standard, the regional and/or national standard shall have the notation(s) allocated to the international standard. Similarly, if a regional standard is adopted as a national standard, the latter shall have the notation(s) allocated to the regional standard.

3.17 In general, to provide worldwide consistency in indexing, indexers should be guided by the practices of allocation of ICS notations applied for international standards (in the first place) and regional standards.

3.18 Identified errors in indexing due to misallocation of ICS notations, transposing of figures in ICS notations, typographical errors, etc. should be notified to the organization concerned.

4 Updating of the ICS

4.1 The classification is updated according to needs. Any user may submit proposals for modifications and/or additions to the ICS. Such proposals should be sent to the ISO Central Secretariat at the following address:

1, rue de Varembe	Tel.	+ 41 22 749 01 11
Case postale 56	Fax	+ 41 22 749 01 55
CH-1211 GENEVE 20	E-mail:	central@iso.org

4.2 All proposals received will be considered and their authors will be informed on any follow-up action.

5 How to use the ICS index

5.1 The ICS index is presented in a KWIC (key-word-in-context) form. The titles of all fields/groups/sub-groups, scope notes and reference notes (when they do not repeat the titles of corresponding fields/groups/sub-groups) appear under all words (keywords) which they contain with the exception of stop-words. These are words which are not significant for search purposes. They include prepositions and such words as "and", "some", "other", "any", "device", "standard", "designation", "sampling" and so on.

5.2 The keywords (printed in bold characters) are arranged in alphabetical order in a single column down the page.

5.3 Keywords are separated from their titles by a bullet symbol (•)

5.4 Notations of fields/groups/sub-groups are given at the left hand column. According to their numbers, corresponding fields/groups/sub-groups are easily identified in the systematic table of fields, groups and sub-groups.

6 List of the ICS fields

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Systematic table of fields, groups and sub-groups

01 GENERALITIES. TERMINOLOGY. STANDARDIZATION. DOCUMENTATION

01.020 Terminology (principles and coordination)

**Including terminography*

01.040 Vocabularies

**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*

- 01.040.01 Generalities. Terminology. Standardization. Documentation (Vocabularies)
- 01.040.03 Services. Company organization, management and quality. Administration. Transport. Sociology. (Vocabularies)
- 01.040.07 Mathematics. Natural sciences (Vocabularies)
- 01.040.11 Health care technology (Vocabularies)
- 01.040.13 Environment. Health protection. Safety (Vocabularies)
- 01.040.17 Metrology and measurement. Physical phenomena (Vocabularies)
- 01.040.19 Testing (Vocabularies)
- 01.040.21 Mechanical systems and components for general use (Vocabularies)
- 01.040.23 Fluid systems and components for general use (Vocabularies)
- 01.040.25 Manufacturing engineering (Vocabularies)
- 01.040.27 Energy and heat transfer engineering (Vocabularies)
- 01.040.29 Electrical engineering (Vocabularies)
- 01.040.31 Electronics (Vocabularies)
- 01.040.33 Telecommunications. Audio and video engineering (Vocabularies)
- 01.040.35 Information technology. Office machines (Vocabularies)
- 01.040.37 Image technology (Vocabularies)
- 01.040.39 Precision mechanics. Jewellery (Vocabularies)
- 01.040.43 Road vehicle engineering (Vocabularies)
- 01.040.45 Railway engineering (Vocabularies)
- 01.040.47 Shipbuilding and marine structures (Vocabularies)
- 01.040.49 Aircraft and space vehicle engineering (Vocabularies)
- 01.040.53 Materials handling equipment (Vocabularies)
- 01.040.55 Packaging and distribution of goods (Vocabularies)
- 01.040.59 Textile and leather technology (Vocabularies)
- 01.040.61 Clothing industry (Vocabularies)
- 01.040.65 Agriculture (Vocabularies)
- 01.040.67 Food technology (Vocabularies)
- 01.040.71 Chemical technology (Vocabularies)
- 01.040.73 Mining and minerals (Vocabularies)
- 01.040.75 Petroleum and related technologies (Vocabularies)
- 01.040.77 Metallurgy (Vocabularies)
- 01.040.79 Wood technology (Vocabularies)
- 01.040.81 Glass and ceramics industries (Vocabularies)
- 01.040.83 Rubber and plastics industries (Vocabularies)
- 01.040.85 Paper technology (Vocabularies)
- 01.040.87 Paint and colour industries (Vocabularies)
- 01.040.91 Construction materials and building (Vocabularies)
- 01.040.93 Civil engineering (Vocabularies)
- 01.040.95 Military engineering (Vocabularies)
- 01.040.97 Domestic and commercial equipment. Entertainment. Sports (Vocabularies)

- 01.060 Quantities and units**
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 01.070 Colour coding**
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 01.075 Character symbols**
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 01.080 Graphical symbols**
- 01.080.01 Graphical symbols in general
- 01.080.10 Public information symbols
- 01.080.20 Graphical symbols for use on specific equipment
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 01.080.30 Graphical symbols for use on mechanical engineering and construction drawings, diagrams, plans, maps and in relevant technical product documentation
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 01.080.40 Graphical symbols for use on electrical and electronics engineering drawings, diagrams, charts and in relevant technical product documentation
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 01.080.50 Graphical symbols for use on information technology and telecommunications technical drawings and in relevant technical product documentation
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 01.080.99 Other graphical symbols
- 01.100 Technical drawings**
**Graphical symbols for use on technical drawings, see 01.080.30*
**Computer-aided design, see 35.240.10*
- 01.100.01 Technical drawings in general
- 01.100.20 Mechanical engineering drawings
- 01.100.25 Electrical and electronics engineering drawings
**Including electrical tables, diagrams and charts*
- 01.100.27 Technical drawings for telecommunications and information technology fields
- 01.100.30 Construction drawings
**Including civil engineering drawings*
- 01.100.40 Drawing equipment
- 01.100.99 Other standards related to technical drawings
- 01.110 Technical product documentation**
**Including rules for preparation of user guides, manuals, product specifications, etc.*
- 01.120 Standardization. General rules**
**Including rules for the preparation of standards catalogues and management of technical documents*
- 01.140 Information sciences. Publishing**
**Information technology applications in information, documentation and publishing, see 35.240.30*
- 01.140.10 Writing and transliteration
**Coded character sets for bibliographic information interchange, see 35.040*
- 01.140.20 Information sciences
**Including documentation, librarianship and archive systems*

- 01.140.30 Documents in administration, commerce and industry
**Technical product documentation, see 01.110*
**Banking documents, see 03.060*
**Electronic data interchange (EDI), see 35.240.60*
- 01.140.40 Publishing
**Electronic publishing, see 35.240.30*

03 SERVICES. COMPANY ORGANIZATION, MANAGEMENT AND QUALITY. ADMINISTRATION. TRANSPORT. SOCIOLOGY

03.020 Sociology. Demography

03.040 Labour. Employment

**Working environment, see 13.040.30 and 13.180*

03.060 Finances. Banking. Monetary systems. Insurance

**Including personal financial planning*

**Information technology applications in banking, see 35.240.40*

03.080 Services

**Transport, see 03.220*

**Postal services, see 03.240*

03.080.01 Services in general

03.080.10 Industrial services

**Including maintenance, cleaning, etc.*

03.080.20 Services for companies

**Including publicity, advertising, etc.*

**Staff training and staff certification, see 03.100.30*

03.080.30 Services for consumers

**Including hotels, restaurants, washing, cleaning, removals, funerals, etc.*

**Transport services and costs, see 03.220*

**Consumer information, see 97.020*

03.080.99 Other services

03.100 Company organization and management

03.100.01 Company organization and management in general

**Including legal aspects and risk management*

03.100.10 Purchasing. Procurement. Logistics

03.100.20 Trade. Commercial function. Marketing

**E-commerce, see 35.240.60*

03.100.30 Management of human resources

**Including staff training, staff responsibilities, staff qualifications and certification*

**Welders' qualifications, see 25.160.01*

03.100.40 Research and development

**Including project management, value analysis, etc.*

03.100.50 Production. Production management

03.100.60 Accountancy

03.100.99 Other standards related to company organization and management

03.120 Quality

03.120.01 Quality in general

**Including general aspects related to reliability and maintainability*

03.120.10 Quality management and quality assurance

03.120.20 Product and company certification. Conformity assessment

**Including laboratory accreditation and audit programmes and auditing*

03.120.30 Application of statistical methods

03.120.99 Other standards related to quality

- 03.140 Patents. Intellectual property**
- 03.160 Law. Administration**
**Including flags and associated symbols (emblems) of political and administrative entities, military flags, flags of organizations, etc.*
**This group includes standards for general use*
- 03.180 Education**
**E-learning, see 35.240.99*
- 03.200 Leisure. Tourism**
**Camping equipment, see 97.200.30*
- 03.220 Transport**
**Transport of dangerous goods, see 13.300*
- 03.220.01 Transport in general
- 03.220.20 Road transport
**Including road transport services*
**Road traffic control equipment and installations, see 93.080.30*
- 03.220.30 Transport by rail
**Including rail transport services*
**Rail traffic control equipment and installations, see 93.100*
- 03.220.40 Transport by water
**Including water transport services*
**Water transport control equipment and installations, see 93.140*
- 03.220.50 Air transport
**Including air transport services*
**Air transport control equipment and installations, see 93.120*
- 03.220.99 Other forms of transport
- 03.240 Postal services**
**Including postal equipment, post-boxes and letter-boxes, etc.*
-

07 MATHEMATICS. NATURAL SCIENCES

- 07.020 Mathematics**
**Application of statistical methods in quality assurance, see 03.120.30*
- 07.030 Physics. Chemistry**
**This group includes standards in the field of physics and chemistry as natural sciences*
**Applied physics, see 17*
**Chemical technology, see 71*
- 07.040 Astronomy. Geodesy. Geography**
- 07.060 Geology. Meteorology. Hydrology**
- 07.080 Biology. Botany. Zoology**
**Including biotechnology*
- 07.100 Microbiology**
- 07.100.01 Microbiology in general
- 07.100.10 Medical microbiology
**Laboratory medicine, see 11.100*
- 07.100.20 Microbiology of water
**Examination of biological properties of water, see 13.060.70*
- 07.100.30 Food microbiology
**Including microbiology of animal feeding stuffs*
**Animal feeding stuffs, see 65.120*
**General methods of tests and analysis for food products, see 67.050*
- 07.100.99 Other standards related to microbiology

11 HEALTH CARE TECHNOLOGY

11.020 Medical sciences and health care facilities in general

**Including quality and environmental management in health care technology*

**IT application in health care technology, see 35.240.80*

11.040 Medical equipment

11.040.01 Medical equipment in general

11.040.10 Anaesthetic, respiratory and reanimation equipment

**Including medical gas installations*

11.040.20 Transfusion, infusion and injection equipment

**Including blood packs*

**Syringes, needles and catheters, see 11.040.25*

11.040.25 Syringes, needles and catheters

11.040.30 Surgical instruments and materials

**Including surgical dressings, sutures, etc.*

11.040.40 Implants for surgery, prosthetics and orthotics

**Including pacemakers*

**Ophthalmic implants, see 11.040.70*

11.040.50 Radiographic equipment

**Including radiographic diagnostic and therapy equipment*

**Dental, medical and industrial radiographic films, see 37.040.25*

11.040.55 Diagnostic equipment

**Including medical monitoring equipment, medical thermometers and related materials*

11.040.60 Therapy equipment

11.040.70 Ophthalmic equipment

**Including ophthalmic implants, glasses, contact lenses and their cleaning products*

11.040.99 Other medical equipment

11.060 Dentistry

11.060.01 Dentistry in general

11.060.10 Dental materials

11.060.15 Dental implants

**Including dentures*

11.060.20 Dental equipment

**Dental radiographic films, see 37.040.25*

**Toothbrushes and dental floss, see 97.170*

11.060.25 Dental instruments

11.080 Sterilization and disinfection

11.080.01 Sterilization and disinfection in general

**Including sterilization methods, air quality of surgery rooms, etc.*

11.080.10 Sterilizing equipment

11.080.20 Disinfectants and antiseptics

**Chemicals for industrial and domestic disinfection purposes, see 71.100.35*

11.080.30 Sterilized packaging

11.080.99 Other standards related to sterilization and disinfection

11.100 Laboratory medicine

11.100.01 Laboratory medicine in general

11.100.10 In vitro diagnostic test systems

11.100.20 Biological evaluation of medical devices

**Medical microbiology, see 07.100.10*

11.100.30 Analysis of blood and urine

**Including doping control*

11.100.99 Other standards related to laboratory medicine

- 11.120 **Pharmaceutics****
- 11.120.01 Pharmaceutics in general
- 11.120.10 Medicaments
 **Including medical prescriptions and medicinal herbs*
- 11.120.20 Wound dressings and compresses
- 11.120.99 Other standards related to pharmaceutics
 **Including equipment for pharmaceutical industry*

- 11.140 **Hospital equipment****
 **Including hospital beds, surgical tables, medical garments,
 medical gloves, containers for sharp disposal, etc.*

- 11.160 **First aid****
 **Including kits, equipment, facilities and medical transport for
 first aid*

- 11.180 **Aids for disabled or handicapped persons****
 **Including aids for elderly people*
- 11.180.01 Aids for disabled and handicapped persons in general
- 11.180.10 Aids and adaptation for moving
 **Including wheelchairs, walking sticks and lifting platforms*
- 11.180.15 Aids for deaf and hearing impaired people
- 11.180.20 Aids for incontinence and ostomy
- 11.180.30 Aids for blind or partially sighted people
 **Including Braille*
 **Glasses, contact lenses and their cleaning products,
 see 11.040.70*
- 11.180.40 Aids for drinking and eating
- 11.180.99 Other standards related to aids for disabled and
 handicapped people

- 11.200 **Birth control. Mechanical contraceptives****

- 11.220 **Veterinary medicine****
 **Including equipment specific to veterinary medicine*

13 ENVIRONMENT. HEALTH PROTECTION. SAFETY

- 13.020 **Environmental protection****
- 13.020.01 Environment and environmental protection in general
- 13.020.10 Environmental management
 **Including Environmental Management Systems (EMS),
 certification and audit*
- 13.020.20 Environmental economics
 **Including sustainable development*
- 13.020.30 Environmental impact assessment
 **Including environmental risk management*
- 13.020.40 Pollution, pollution control and conservation
 **Including ecotoxicology*
- 13.020.50 Ecolabelling
- 13.020.60 Product life-cycles
- 13.020.70 Environmental projects
- 13.020.99 Other standards related to environmental protection

- 13.030 **Wastes****
 **Standards for industrial and agricultural wastes should be
 classified under sub -groups according to their type*
- 13.030.01 Wastes in general
- 13.030.10 Solid wastes
- 13.030.20 Liquid wastes. Sludge
 **Sewage water disposal and treatment, see 13.060.30*
- 13.030.30 Special wastes
 **Including radioactive wastes, hospital wastes, carcasses, and
 other hazardous wastes*

- 13.030.40 Installations and equipment for waste disposal and treatment
 - *Including street cleaning equipment, waste containers, incineration and compaction equipment, equipment for dumping of refuse, landfill sites, etc.*
 - *Waste collection vehicles, see 43.160*
 - *Waste chutes, see 91.140.70*
 - *Food waste disposal units, see 97.040.50*
- 13.030.50 Recycling
 - *Including relevant equipment*
 - *motor vehicle recycling, see 43.020*
- 13.030.99 Other standards related to wastes
 - *Including waste prevention*
- 13.040 Air quality**
- 13.040.01 Air quality in general
- 13.040.20 Ambient atmospheres
 - *Including indoor air*
- 13.040.30 Workplace atmospheres
 - *Air quality of surgery rooms, see 11.080.01*
- 13.040.35 Cleanrooms and associated controlled environments
- 13.040.40 Stationary source emissions
- 13.040.50 Transport exhaust emissions
- 13.040.99 Other standards related to air quality
- 13.060 Water quality**
 - *Including toxicity, biodegradability, protection against pollution, related installations and equipment*
 - *Standards for examination of water should be classified under sub-groups according to their type of water*
- 13.060.01 Water quality in general
- 13.060.10 Water of natural resources
- 13.060.20 Drinking water
 - *Mineral water, see 67.160.20*
 - *Chemicals for purification of water, see 71.100.80*
 - *Drinking water supply systems, see 91.140.60*
- 13.060.25 Water for industrial use
 - *Including water for commercial use: for swimming pools, fish breeding, etc.*
- 13.060.30 Sewage water
 - *Including sewage water disposal and treatment*
 - *Liquid wastes, see 13.030.20*
 - *Drainage systems, see 91.140.80*
 - *Sewage systems, see 93.030*
- 13.060.45 Examination of water in general
 - *Including sampling*
- 13.060.50 Examination of water for chemical substances
- 13.060.60 Examination of physical properties of water
- 13.060.70 Examination of biological properties of water
 - *Microbiology of water, see 07.100.20*
- 13.060.99 Other standards related to water quality
- 13.080 Soil quality. Pedology**
 - *Soil properties related to geotechnics, see 93.020*
- 13.080.01 Soil quality and pedology in general
 - *Including pollution, erosion, degradation, etc.*
- 13.080.05 Examination of soils in general
 - *Including sampling*
- 13.080.10 Chemical characteristics of soils
- 13.080.20 Physical properties of soils
- 13.080.30 Biological properties of soils
- 13.080.40 Hydrological properties of soils
- 13.080.99 Other standards related to soil quality
 - *Including agricultural aspects related to soils and re-use of soil materials*
- 13.100 Occupational safety. Industrial hygiene**
 - *Protective clothing and equipment, see 13.340*
 - *Workplace lighting, see 91.160.10*

- 13.110 Safety of machinery**
**This group includes standards for general use*
- 13.120 Domestic safety**
**Child safety, see 97.190*
**Safety of toys, see 97.200.50*
- 13.140 Noise with respect to human beings**
**Including audiometry*
**Hearing protectors, see 13.340.20*
**Acoustics and acoustic measurements, see 17.140*
- 13.160 Vibration and shock with respect to human beings**
**Vibrations, shock and vibration measurements, see 17.160*
- 13.180 Ergonomics**
- 13.200 Accident and disaster control**
**Including emergency evacuations and emergency control systems*
**Seismic and vibration protection of buildings, see 91.120.25*
- 13.220 Protection against fire**
- 13.220.01 Protection against fire in general
**Including fire safety*
- 13.220.10 Fire-fighting
**Including equipment and vehicles*
**Flameproof clothing, see 13.340.10*
- 13.220.20 Fire protection
**Including equipment*
- 13.220.40 Ignitability and burning behaviour of materials and products
- 13.220.50 Fire-resistance of building materials and elements
- 13.220.99 Other standards related to protection against fire
- 13.230 Explosion protection**
**Electrical apparatus for explosive atmospheres, see 29.260.20*
**Explosives and pyrotechnics, see 71.100.30*
- 13.240 Protection against excessive pressure**
**Including safety valves, bursting disc devices, etc.*
- 13.260 Protection against electric shock. Live working**
**Including tools for working with voltages*
- 13.280 Radiation protection**
**Including protection against radio-frequency radiation*
**Radiation measurements, see 17.240*
- 13.300 Protection against dangerous goods**
**Including performance requirements for dangerous goods, their handling, storage, transportation, marking, labelling, etc.*
**Nuclear fissile materials, see 27.120.30*
**Explosives, see 71.100.30*
- 13.310 Protection against crime**
**Including security services, security procedures, burglar alarm devices, burglary resisting materials and equipment, bullet resisting materials and equipment, anti-theft devices for vehicles, safes, strong rooms, etc.*
- 13.320 Alarm and warning systems**
**Burglar alarm and warning systems, see 13.310*
**Warning devices for road vehicles, see 43.040.20*

- 13.340 Protective equipment**
 - *Occupational safety, see 13.100*
 - 13.340.01 Protective equipment in general
 - 13.340.10 Protective clothing
 - *Including flameproof clothing*
 - 13.340.20 Head protective equipment
 - *Including helmets, eye-protectors, hearing protectors, ear muffs, teeth protectors and hoods.*
 - 13.340.30 Respiratory protective devices
 - 13.340.40 Hand and arm protection
 - *Including protective gloves, sleeves and mits*
 - *Medical gloves, see 11.140*
 - 13.340.50 Leg and foot protection
 - *Including safety boots and shoes*
 - 13.340.60 Protection against falling and slipping
 - *Including safety ropes, harnesses and fall arrestors*
 - *Mountaineering equipment, see 97.220.40*
 - 13.340.70 Lifejackets, buoyancy aids and flotation devices
 - 13.340.99 Other protective equipment

17 METROLOGY AND MEASUREMENT. PHYSICAL PHENOMENA

- 17.020 Metrology and measurement in general**
 - *Including measuring instruments in general, preferred numbers, standard measures, general aspects of reference materials, etc.*
 - *Quantities and units, see 01.060*
 - *Chemical reference materials, see 71.040.30*
- 17.040 Linear and angular measurements**
 - *Including Geometrical Product Specification (GPS)*
 - 17.040.01 Linear and angular measurements in general
 - 17.040.10 Limits and fits
 - 17.040.20 Properties of surfaces
 - 17.040.30 Measuring instruments
 - 17.040.99 Other standards related to linear and angular measurements
- 17.060 Measurement of volume, mass, density, viscosity**
 - *Including measuring instruments*
 - *Volumetric measurements of petroleum products and natural gas, see 75.180.30*
- 17.080 Measurement of time, velocity, acceleration, angular velocity**
 - *Including measuring instruments*
 - *Time-measuring instruments, see 39.040*
- 17.100 Measurement of force, weight and pressure**
 - *Including measuring and weighing instruments*
- 17.120 Measurement of fluid flow**
 - *Including measuring instruments and installations*
 - 17.120.01 Measurement of fluid flow in general
 - 17.120.10 Flow in closed conduits
 - *Gas meters in buildings, see 91.140.40*
 - *Water meters in buildings, see 91.140.60*
 - 17.120.20 Flow in open channels
 - *Including hydrometric determinations*

- 17.140 Acoustics and acoustic measurements**
**Including measuring instruments and testing equipment*
**Noise with respect to human beings, see 13.140*
**Acoustics in building, see 91.120.20*
- 17.140.01 Acoustic measurements and noise abatement in general
**Including acoustic insulation*
- 17.140.20 Noise emitted by machines and equipment
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 17.140.30 Noise emitted by means of transport
**Including road noise, railway noise, harbour noise and airport noise*
**Standards included in this group shall also be included in other groups and/or sub-groups according to their subject*
- 17.140.50 Electroacoustics
**Including sound level meters*
- 17.140.99 Other standards related to acoustics
- 17.160 Vibrations, shock and vibration measurements**
**Including measuring instruments and installations*
**Vibration and shock with respect to human beings, see 13.160*
**Balancing and balancing machines, see 21.120.40*
**Vibration protection of buildings, see 91.120.25*
- 17.180 Optics and optical measurements**
- 17.180.01 Optics and optical measurements in general
- 17.180.20 Colours and measurement of light
- 17.180.30 Optical measuring instruments
**Including spectrometers, geodetic instruments, etc.*
**Ophthalmic optics and instruments, see 11.040.70*
**Laser equipment, see 31.260*
**Fibre optics, see 33.180*
**Optical equipment, materials and components, see 37.020*
**Photographic equipment lenses, see 37.040.10*
- 17.180.99 Other standards related to optics and optical measurements
- 17.200 Thermodynamics and temperature measurements**
- 17.200.01 Thermodynamics in general
- 17.200.10 Heat. Calorimetry
- 17.200.20 Temperature-measuring instruments
**Including thermostats*
**Medical thermometers, see 11.040.55*
- 17.200.99 Other standards related to thermodynamics
- 17.220 Electricity. Magnetism. Electrical and magnetic measurements**
- 17.220.01 Electricity. Magnetism. General aspects
**Including electromagnetism*
- 17.220.20 Measurement of electrical and magnetic quantities
**Including measuring instruments, instrument transformers*
**Electric energy meters in buildings, see 91.140.50*
- 17.220.99 Other standards related to electricity and magnetism
- 17.240 Radiation measurements**
**Including dosimetry*
**Radiation protection, see 13.280*

19 TESTING

**This group includes standards for general use*
**Analytical chemistry, see 71.040*

19.020 Test conditions and procedures in general

19.040 Environmental testing

**Including testing equipment*

- 19.060 Mechanical testing**
**Including testing equipment*
**Mechanical testing of metals, see 77.040.10*
- 19.080 Electrical and electronic testing**
**Including testing equipment*
**Equipment for measuring electrical and magnetic quantities, see 17.220.20*
- 19.100 Non-destructive testing**
**Including testing equipment: industrial apparatus for X-ray and gamma radiography, penetrant flaw detectors, etc.*
**Non-destructive testing of welded joints, see 25.160.40*
**Industrial radiographic films, see 37.040.25*
**Non-destructive testing of metals, see 77.040.20*
- 19.120 Particle size analysis. Sieving**
**Including test sieves and porosimetry*
-

21 MECHANICAL SYSTEMS AND COMPONENTS FOR GENERAL USE

- 21.020 Characteristics and design of machines, apparatus, equipment**
**Including reliability, dependability, maintainability, durability, etc.*
**Safety of machinery, see 13.110*
- 21.040 Screw threads**
**Screw threads for aerospace construction, see 49.030.10*
- 21.040.01 Screw threads in general
- 21.040.10 Metric screw threads
- 21.040.20 Inch screw threads
**Including Whitworth screw threads*
**Pipe threads, see 21.040.30*
- 21.040.30 Special screw threads
**Including miniature screw threads, pipe threads, etc.*
- 21.060 Fasteners**
**Fasteners related to surgery, prosthetics and orthotics, see 11.040.40*
**Fasteners for aerospace construction, see 49.030*
- 21.060.01 Fasteners in general
- 21.060.10 Bolts, screws, studs
- 21.060.20 Nuts
- 21.060.30 Washers, locking elements
- 21.060.40 Rivets
- 21.060.50 Pins, nails
- 21.060.60 Rings, bushes, sleeves, collars
- 21.060.70 Clamps and staples
- 21.060.99 Other fasteners
- 21.080 Hinges, eyelets and other articulated joints**
- 21.100 Bearings**
- 21.100.01 Bearings in general
- 21.100.10 Plain bearings
- 21.100.20 Rolling bearings

- 21.120 Shafts and couplings**
 - 21.120.01 Shafts and couplings in general
 - 21.120.10 Shafts
 - 21.120.20 Couplings
 - 21.120.30 Keys and keyways, splines
 - 21.120.40 Balancing and balancing machines
 - 21.120.99 Other standards related to shafts and couplings
- 21.140 Seals, glands**
**Seals for pipe and hose assemblies, see 23.040.80*
- 21.160 Springs**
**Steel for springs, see 77.140.25*
- 21.180 Housings, enclosures, other machine parts**
- 21.200 Gears**
- 21.220 Flexible drives and transmissions**
 - 21.220.01 Flexible drives and transmissions in general
 - 21.220.10 Belt drives and their components
 - 21.220.20 Cable or rope drives and their components
 - 21.220.30 Chain drives and their components
 - 21.220.99 Other flexible drives and transmissions
- 21.240 Rotary-reciprocating mechanisms and their parts**
**Including pistons, piston-rings, crankshafts, etc. for general engineering*
- 21.260 Lubrication systems**
**Lubricants, see 75.100*

23 FLUID SYSTEMS AND COMPONENTS FOR GENERAL USE

**Measurement of fluid flow, see 17.120*

- 23.020 Fluid storage devices**
 - *Small containers for transportation of fluids and bulk materials, see 55.140*
 - *Storage devices for petroleum products and natural gas, see 75.200*
 - 23.020.01 Fluid storage devices in general
 - 23.020.10 Stationary containers and tanks
 - 23.020.20 Vessels and containers mounted on vehicles
 - *Tanker trucks, see 43.080.10*
 - *Tank wagons, see 45.060.20*
 - *Tankers, see 47.020.85*
 - *Small containers for fluids, see 55.140*
 - 23.020.30 Gas pressure vessels, gas cylinders
 - *Steam pressure vessels, see 27.060.30*
 - *Steel for pressure purposes, see 77.140.30*
 - 23.020.40 Cryogenic vessels
 - 23.020.99 Other fluid storage devices
- 23.040 Pipeline components and pipelines**
 - *Pipeline components and pipelines for petroleum products and natural gas, see 75.200*
 - 23.040.01 Pipeline components and pipelines in general
 - 23.040.10 Iron and steel pipes
 - *Steel pipes and tubes for specific use, see 77.140.75*
 - 23.040.15 Non-ferrous metal pipes
 - *Non-ferrous metal pipes and tubes for specific use, see 77.150*
 - 23.040.20 Plastics pipes
 - 23.040.40 Metal fittings

- 23.040.45 Plastics fittings
- 23.040.50 Pipes and fittings of other materials
- 23.040.60 Flanges, couplings and joints
- 23.040.70 Hoses and hose assemblies
- 23.040.80 Seals for pipe and hose assemblies
- 23.040.99 Other pipeline components

- 23.060 Valves**
- 23.060.01 Valves in general
- 23.060.10 Globe valves
- 23.060.20 Ball and plug valves
- 23.060.30 Gate valves
- 23.060.40 Pressure regulators
 - *Including pressure-reducers*
 - *Protection against excessive pressure, see 13.240*
- 23.060.50 Check valves
- 23.060.99 Other valves

- 23.080 Pumps**
 - *Pumps for fluid power systems, see 23.100.10*
 - *Vacuum pumps, see 23.160*

- 23.100 Fluid power systems**
- 23.100.01 Fluid power systems in general
- 23.100.10 Pumps and motors
- 23.100.20 Cylinders
- 23.100.40 Piping and couplings
- 23.100.50 Control components
 - *Including valves*
- 23.100.60 Filters, seals and contamination of fluids
 - *Hydraulic fluids, see 75.120*
- 23.100.99 Other fluid power system components

- 23.120 Ventilators. Fans. Air-conditioners**
 - *Marine ventilation and air-conditioning systems, see 47.020.90*
 - *Mining ventilation and air-conditioning systems, see 73.100.20*
 - *Ventilation and air-conditioning in buildings, see 91.140.30*

- 23.140 Compressors and pneumatic machines**
 - *Compressed air, see 71.100.20*

- 23.160 Vacuum technology**
 - *Including vacuum pumps*

25 MANUFACTURING ENGINEERING

**This group includes standards for general use*

- 25.020 Manufacturing forming processes**

- 25.040 Industrial automation systems**
 - *IT applications in industry, see 35.240.50*
- 25.040.01 Industrial automation systems in general
- 25.040.10 Machining centres
- 25.040.20 Numerically controlled machines
- 25.040.30 Industrial robots. Manipulators
- 25.040.40 Industrial process measurement and control
- 25.040.99 Other industrial automation systems

- 25.060 Machine tool systems**
- 25.060.01 Machine tool systems in general
- 25.060.10 Modular units and other devices
- 25.060.20 Dividing and tool-workpiece holding devices
- 25.060.99 Other machine tool systems

- 25.080 Machine tools**
**Woodworking machines, see 79.120.10*
- 25.080.01 Machine tools in general
 - 25.080.10 Lathes
 - 25.080.20 Boring and milling machines
 - 25.080.25 Planing machines
 - 25.080.30 Broaching machines
 - 25.080.40 Drilling machines
 - 25.080.50 Grinding and polishing machines
 - 25.080.60 Sawing machines
 - 25.080.99 Other machine tools
- 25.100 Cutting tools**
**Including industrial diamonds*
**Woodworking tools, see 79.120.20*
- 25.100.01 Cutting tools in general
 - 25.100.10 Turning tools
 - 25.100.20 Milling tools
 - 25.100.25 Tools for planing and broaching machines
 - 25.100.30 Drills, countersinks, reamers
 - 25.100.40 Saws
 - 25.100.50 Taps and threading dies
 - 25.100.60 Files
 - 25.100.70 Abrasives
 - 25.100.99 Other cutting tools
- 25.120 Chipless working equipment**
- 25.120.01 Chipless working equipment in general
 - 25.120.10 Forging equipment. Presses. Shears
 - 25.120.20 Rolling, extruding and drawing equipment
 - 25.120.30 Moulding equipment
 - 25.120.40 Electrochemical machines
 - 25.120.99 Other chipless working equipment
- 25.140 Hand-held tools**
**Tools for working with voltages, see 13.260*
- 25.140.01 Hand-held tools in general
 - 25.140.10 Pneumatic tools
 - 25.140.20 Electric tools
**Chain- and brush-saws, see 65.060.80*
 - 25.140.30 Hand-operated tools
**Including wrenches, screwdrivers, pliers, nippers, hammers, etc.*
 - 25.140.99 Other hand-held tools
- 25.160 Welding, brazing and soldering**
**Including gas welding, electric welding, plasma welding, electron beam welding, plasma cutting, etc.*
- 25.160.01 Welding, brazing and soldering in general
**Including welders' qualifications*
 - 25.160.10 Welding processes
**Including thermal cutting and cladding*
 - 25.160.20 Welding consumables
**Including electrodes, filler metals, gases, etc.*
 - 25.160.30 Welding equipment
**Including thermal cutting equipment*
 - 25.160.40 Welded joints and welds
**Including welding position and mechanical and non-destructive testing of welded joints*
 - 25.160.50 Brazing and soldering
**Including brazing and soldering alloys and equipment*
- 25.180 Industrial furnaces**
- 25.180.01 Industrial furnaces in general
 - 25.180.10 Electric furnaces
 - 25.180.20 Fuel furnaces

- 25.200 Heat treatment**
- 25.220 Surface treatment and coating**
 - *Including processes and equipment for surface treatment and coating*
 - *Heat treatment, see 25.200*
 - *Surface treatment and coating in aerospace industry, see 49.040*
 - *Corrosion of metals, see 77.060*
 - *Paint coating, see 87.020*
- 25.220.01 Surface treatment and coating in general
- 25.220.10 Surface preparation
 - *Including surface preparation for painting, cleaning, scouring, blasting, etc.*
- 25.220.20 Surface treatment
 - *Including anodization, conversion coating, thermal spraying, etc.*
- 25.220.40 Metallic coatings
 - *Including electrolytic depositions, cathodic coatings, autocatalytic coatings, etc.*
- 25.220.50 Enamels
- 25.220.60 Organic coatings
- 25.220.99 Other treatments and coatings

27 ENERGY AND HEAT TRANSFER ENGINEERING

- 27.010 Energy and heat transfer engineering in general**
- 27.020 Internal combustion engines**
 - *This group includes standards for general use*
 - *Internal combustion engines for current generating sets, see 29.160.40*
 - *Internal combustion engines for road vehicles, see 43.060*
 - *Marine engines, see 47.020.20*
- 27.040 Gas and steam turbines. Steam engines**
 - *Hydraulic turbines, see 27.140*
- 27.060 Burners. Boilers**
 - 27.060.01 Burners and boilers in general
 - *Burners and boilers for central heating systems, see 91.140.10*
 - 27.060.10 Liquid and solid fuel burners
 - 27.060.20 Gas fuel burners
 - 27.060.30 Boilers and heat exchangers
 - *Including steam pressure vessels*
 - *Heat exchangers for medical use, see 11.040.10*
 - *Heat exchangers for the chemical industry, see 71.120.30*
 - *Heat exchangers for the petroleum and natural gas industry, see 75.180.20*
 - *Heating appliances for buildings, see 97.100*
- 27.070 Fuel cells**
- 27.075 Hydrogen technologies**
 - *Industrial application of gases, see 71.100.20*
- 27.080 Heat pumps**
- 27.100 Power stations in general**
 - *Including thermal power plants*
 - *Nuclear power plants, see 27.120.20*
 - *Hydraulic power plants, see 27.140*
 - *Solar power stations, see 27.160*
 - *Wind turbine systems, see 27.180*

- 27.120 Nuclear energy engineering**
27.120.01 Nuclear energy in general
27.120.10 Reactor engineering
27.120.20 Nuclear power plants. Safety
**Radiation protection, see 13.280*
27.120.30 Fissile materials and nuclear fuel technology
**Including raw materials*
**Radioactive wastes, see 13.030.30*
27.120.99 Other standards related to nuclear energy
- 27.140 Hydraulic energy engineering**
**Including hydraulic turbines*
- 27.160 Solar energy engineering**
**Including photovoltaic energy systems*
- 27.180 Wind turbine energy systems**
**Including generation of electrical energy*
- 27.190 Biological sources and alternative sources of energy**
- 27.200 Refrigerating technology**
**Air-conditioners, see 23.120*
**Refrigerants, see 71.100.45*
**Household refrigerating appliances, see 97.040.30*
**Commercial refrigerating appliances, see 97.130.20*
- 27.220 Heat recovery. Thermal insulation**
**This group includes standards for general use*
**Thermal insulation of buildings, see 91.120.10*
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29 ELECTRICAL ENGINEERING

- 29.020 Electrical engineering in general**
**Including voltages, general electrical terminology, electrical documentation, electrical tables, safety, fire hazard testing, etc.*
**Electrical diagrams and charts, see 01.100.25*
**Electrical power stations, see 27.100*
**Electromagnetic compatibility, see 33.100*
- 29.030 Magnetic materials**
**Steels with special magnetic properties, see 77.140.40*
- 29.035 Insulating materials**
29.035.01 Insulating materials in general
29.035.10 Paper and board insulating materials
29.035.20 Plastics and rubber insulating materials
**Including adhesive tapes*
29.035.30 Glass and ceramic insulating materials
29.035.50 Mica based materials
29.035.60 Varnished fabrics
29.035.99 Other insulating materials
- 29.040 Insulating fluids**
29.040.01 Insulating fluids in general
29.040.10 Insulating oils
29.040.20 Insulating gases
29.040.99 Other insulating fluids
- 29.045 Semiconducting materials**
- 29.050 Superconductivity and conducting materials**

- 29.060 Electrical wires and cables**
 - 29.060.01 Electrical wires and cables in general
 - 29.060.10 Wires
 - *Including electric rods, busbars, etc.*
 - 29.060.20 Cables

- 29.080 Insulation**
 - *Insulating materials, see 29.035*
 - *Insulating fluids, see 29.040*
 - 29.080.01 Electrical insulation in general
 - 29.080.10 Insulators
 - *Including fittings and other components for insulators*
 - 29.080.20 Bushings
 - 29.080.30 Insulation systems
 - 29.080.99 Other standards related to insulation

- 29.100 Components for electrical equipment**
 - *Electronic components, see 31*
 - 29.100.01 Components for electrical equipment in general
 - 29.100.10 Magnetic components
 - 29.100.20 Electric and electromechanical components
 - 29.100.99 Other components for electrical equipment

- 29.120 Electrical accessories**
 - 29.120.01 Electrical accessories in general
 - 29.120.10 Conduits for electrical purposes
 - 29.120.20 Connecting devices
 - 29.120.30 Plugs, socket-outlets, couplers
 - 29.120.40 Switches
 - 29.120.50 Fuses and other overcurrent protection devices
 - 29.120.70 Relays
 - 29.120.99 Other electrical accessories

- 29.130 Switchgear and controlgear**
 - 29.130.01 Switchgear and controlgear in general
 - 29.130.10 High voltage switchgear and controlgear
 - *Including enclosed switchgear and controlgear*
 - 29.130.20 Low voltage switchgear and controlgear
 - *Including switchgear and controlgear assemblies*
 - 29.130.99 Other switchgear and controlgear

- 29.140 Lamps and related equipment**
 - 29.140.01 Lamps in general
 - 29.140.10 Lamp caps and holders
 - 29.140.20 Incandescent lamps
 - 29.140.30 Fluorescent lamps. Discharge lamps
 - 29.140.40 Luminaires
 - 29.140.50 Lighting installation systems
 - *Including supply track systems*
 - 29.140.99 Other standards related to lamps

- 29.160 Rotating machinery**
 - 29.160.01 Rotating machinery in general
 - 29.160.10 Components for rotating machines
 - 29.160.20 Generators
 - 29.160.30 Motors
 - 29.160.40 Generating sets
 - 29.160.99 Other standards related to rotating machinery

- 29.180 Transformers. Reactors**
 - *Instrument transformers, see 17.220.20*

- 29.200 Rectifiers. Converters. Stabilized power supply**
 - *Including semiconductor converters*

- 29.220 Galvanic cells and batteries**
29.220.01 Galvanic cells and batteries in general
29.220.10 Primary cells and batteries
29.220.20 Acid secondary cells and batteries
29.220.30 Alkaline secondary cells and batteries
29.220.99 Other cells and batteries
- 29.240 Power transmission and distribution networks**
**Electricity supply systems in buildings, see 91.140.50*
29.240.01 Power transmission and distribution networks in general
**Powerline telecommunications, see 33.040.60*
29.240.10 Substations. Surge arresters
29.240.20 Power transmission and distribution lines
29.240.30 Control equipment for electric power systems
**Measuring instruments for electrical quantities, see 17.220.20*
29.240.99 Other equipment related to power transmission and distribution networks
**Including capacitors for power networks*
- 29.260 Electrical equipment for working in special conditions**
29.260.01 Electrical equipment for working in special conditions in general
29.260.10 Electrical installations for outdoor use
29.260.20 Electrical apparatus for explosive atmospheres
29.260.99 Other electrical equipment for working in special conditions
- 29.280 Electric traction equipment**
**Including railway electric fixed installations*
**Electric road vehicles, see 43.120*
**Non-electric railway tractive stock, see 45.060.10*
-

31 ELECTRONICS

- 31.020 Electronic components in general**
**Magnetic components, see 29.100.10*
- 31.040 Resistors**
31.040.01 Resistors in general
31.040.10 Fixed resistors
31.040.20 Potentiometers, variable resistors
31.040.30 Thermistors
31.040.99 Other resistors
- 31.060 Capacitors**
31.060.01 Capacitors in general
31.060.10 Fixed capacitors
31.060.20 Ceramic and mica capacitors
31.060.30 Paper and plastics capacitors
31.060.40 Tantalum electrolytic capacitors
31.060.50 Aluminium electrolytic capacitors
31.060.60 Variable capacitors
31.060.70 Power capacitors
**Capacitors for power networks, see 29.240.99*
31.060.99 Other capacitors
- 31.080 Semiconductor devices**
**Semiconducting materials, see 29.045*
31.080.01 Semiconductor devices in general
31.080.10 Diodes
31.080.20 Thyristors
31.080.30 Transistors
31.080.99 Other semiconductor devices

- 31.100 Electronic tubes**
- 31.120 Electronic display devices**
**Including liquid crystal displays*
- 31.140 Piezoelectric devices**
- 31.160 Electric filters**
- 31.180 Printed circuits and boards**
- 31.190 Electronic component assemblies**
**Including preassembled modules*
- 31.200 Integrated circuits. Microelectronics**
**Including electronic chips, logical and analogue microstructures*
**Microprocessors, see 35.160*
- 31.220 Electromechanical components for electronic and telecommunications equipment**
 - 31.220.01 Electromechanical components in general
 - 31.220.10 Plug-and-socket devices. Connectors
 - 31.220.20 Switches
 - 31.220.99 Other electromechanical components
- 31.240 Mechanical structures for electronic equipment**
- 31.260 Optoelectronics. Laser equipment**
**Including photoelectric tubes and cells*

33 TELECOMMUNICATIONS. AUDIO AND VIDEO ENGINEERING

- 33.020 Telecommunications in general**
**Including infrastructure*
- 33.030 Telecommunication services. Applications**
**Including supplementary services, service aspects and associated legal tracability aspects*
- 33.040 Telecommunication systems**
**Including network (system) aspects*
 - 33.040.01 Telecommunication systems in general
 - 33.040.20 Transmission systems
**Including synchronization, cable systems, integrated cabling, pathways and multiplexing*
 - 33.040.30 Switching and signalling systems
**Including telecommunication call charging and billing aspects*
 - 33.040.35 Telephone networks
**Including Public Switched Telephone Networks (PSTN), Private Telecommunication Networks (PTN) and Private Integrated Service Networks (PISN)*
 - 33.040.40 Data communication networks
**Including Packet Switched Public Data Networks (PSPDN) and Ethernet*
**ISDN, see 33.080*
**OSI local, wide and metropolitan area networks, see 35.110*
**Modems, see 35.180*
 - 33.040.50 Lines, connections and circuits
**Including access networks and network elements*
 - 33.040.60 Powerline telecommunications
**Power transmission and distribution, see 29.240.01*
 - 33.040.99 Other equipment for telecommunication systems

- 33.050 Telecommunication terminal equipment**
 - 33.050.01 Telecommunication terminal equipment in general
 - 33.050.10 Telephone equipment
 - 33.050.20 Paging equipment
 - 33.050.30 Equipment for telex, teletext, telefax
**Modems, see 35.180*
 - 33.050.99 Other telecommunication terminal equipment

- 33.060 Radiocommunications**
 - 33.060.01 Radiocommunications in general
 - 33.060.20 Receiving and transmitting equipment
 - 33.060.30 Radio relay and fixed satellite communications systems
 - 33.060.40 Cabled distribution systems
 - 33.060.99 Other equipment for radiocommunications

- 33.070 Mobile services**
 - 33.070.01 Mobile services in general
 - 33.070.10 Terrestrial Trunked Radio (TETRA)
 - 33.070.20 Paging systems
**Including European Radio Message System (ERMES)*
 - 33.070.30 Digital Enhanced Cordless Telecommunications (DECT)
 - 33.070.40 Satellite
**Including Global Positioning System (GPS)*
 - 33.070.50 Global System for Mobile Communication (GSM)
 - 33.070.99 Other mobile services

- 33.080 Integrated Services Digital Network (ISDN)**

- 33.100 Electromagnetic compatibility (EMC)**
**Including radio interference*
 - 33.100.01 Electromagnetic compatibility in general
 - 33.100.10 Emission
 - 33.100.20 Immunity
 - 33.100.99 Other aspects related to EMC

- 33.120 Components and accessories for telecommunications equipment**
**Plug-and-socket devices, connectors, see 31.220.10*
**Switches, see 31.220.20*
 - 33.120.01 Components and accessories in general
 - 33.120.10 Coaxial cables. Waveguides
 - 33.120.20 Wires and symmetrical cables
 - 33.120.30 RF connectors
 - 33.120.40 Aerials
 - 33.120.99 Other components and accessories

- 33.140 Special measuring equipment for use in telecommunications**

- 33.160 Audio, video and audiovisual engineering**
 - 33.160.01 Audio, video and audiovisual systems in general
**Stage and studio equipment, see 97.200.10*
 - 33.160.10 Amplifiers
 - 33.160.20 Radio receivers
 - 33.160.25 Television receivers
 - 33.160.30 Audio systems
**Including tape recorders, records, magnetic tapes, cassettes, CDs, etc.*
 - 33.160.40 Video systems
**Including video tape recorders, cameras, cassettes, laser disks, etc.*
 - 33.160.50 Accessories
**Including headphones, loudspeakers, microphones, etc.*
 - 33.160.60 Multimedia systems and teleconferencing equipment
 - 33.160.99 Other audio, video and audiovisual equipment

- 33.170** **Television and radio broadcasting**
 *Equipment for television and radio broadcasting, see 33.160
 *Stage and studio equipment, see 97.200.10
- 33.180** **Fibre optic communications**
33.180.01 Fibre optic systems in general
33.180.10 Fibres and cables
33.180.20 Fibre optic interconnecting devices
33.180.30 Optic amplifiers
33.180.99 Other fibre optic equipment
- 33.200** **Telecontrol. Telemetry**
 *Including Supervising, Control and Data Acquisition System
 (SCADA)
-

35 **INFORMATION TECHNOLOGY. OFFICE MACHINES**

- 35.020** **Information technology (IT) in general**
 *Including general aspects of IT equipment
- 35.040** **Character sets and information coding**
 *Including coding of audio, picture, multimedia and hypermedia
 information, IT security techniques, encryption, bar coding,
 electronic signatures, etc.
- 35.060** **Languages used in information technology**
- 35.080** **Software**
 *Including software development, documentation, internet
 applications and use
- 35.100** **Open systems interconnection (OSI)**
35.100.01 Open systems interconnection in general
35.100.05 Multilayer applications
 *Including International Standardized Profiles
35.100.10 Physical layer
35.100.20 Data link layer
35.100.30 Network layer
35.100.40 Transport layer
35.100.50 Session layer
35.100.60 Presentation layer
35.100.70 Application layer
- 35.110** **Networking**
 *Including local area networks (LAN), metropolitan area
 networks (MAN), wide area networks (WAN), etc.
 *Private Integrated Services Network (PISN), see 33.040.35
 *Integrated Services Digital Network (ISDN), see 33.080
- 35.140** **Computer graphics**
- 35.160** **Microprocessor systems**
 *Including PCs, calculators, etc.
 *Integrated circuits, see 31.200
- 35.180** **IT terminal and other peripheral equipment**
 *Including modems
- 35.200** **Interface and interconnection equipment**

- 35.220 Data storage devices**
35.220.01 Data storage devices in general
35.220.10 Paper cards and tapes
35.220.20 Magnetic storage devices in general
35.220.21 Magnetic disks
 **Including flexible disks, diskettes, disk packs, disk cartridges, etc.*
35.220.22 Magnetic tapes
35.220.23 Cassettes and cartridges for magnetic tapes
35.220.30 Optical storage devices
 **Including CD and magneto-optical devices (MO)*
35.220.99 Other data storage devices
- 35.240 Applications of information technology**
35.240.01 Application of information technology in general
35.240.10 Computer-aided design (CAD)
35.240.15 Identification cards and related devices
 **Including application of cards for banking, trade, telecommunications, transport, etc.*
35.240.20 IT applications in office work
 **Including text processing systems, text communication, text presentation, Office Document Architecture (ODA), etc.*
35.240.30 IT applications in information, documentation and publishing
 **Including Standard Generalized Markup Language (SGML), automatic translation machines, etc.*
35.240.40 IT applications in banking
 **Including automatic banking facilities*
 **Identification cards for banking purposes, see 35.240.15*
35.240.50 IT applications in industry
 **Including design automation*
35.240.60 IT applications in transport and trade
 **Including EDIFACT and e-commerce*
35.240.70 IT applications in science
 **Including digital geographic information*
35.240.80 IT applications in health care technology
 **Including computer tomography*
35.240.99 IT applications in other fields
 **Including e-learning*
- 35.260 Office machines**
 **Including typewriters, dictation equipment, addressing machines, letter opening machines, letter folding machines, postal franking machines, their ribbons and other accessories, etc.*
 **Telephones, see 33.050.10*
 **Telex and telefax, see 33.050.30*
 **Copying machines, see 37.100.10*
 **Wrapping and packaging equipment, see 55.200*
 **Paper based stationery, see 85.080*
 **Office furniture, see 97.140*
 **Non-paper based stationery, see 97.180*

37 IMAGE TECHNOLOGY

- 37.020 Optical equipment**
 **Including microscopes, telescopes, binoculars, optical materials, optical components and optical systems*
 **Ophthalmic equipment, see 11.040.70*
 **Optical measuring instruments, see 17.180.30*
 **Photographic equipment lenses, see 37.040.10*

- 37.040 Photography**
**Photographic studios, see 97.200.10*
- 37.040.01 Photography in general
 - 37.040.10 Photographic equipment. Projectors
 - 37.040.20 Photographic paper, films and plates. Cartridges
 - 37.040.25 Radiographic films
**Including dental, medical and industrial radiographic films*
 - 37.040.30 Photographic chemicals
 - 37.040.99 Other standards related to photography
- 37.060 Cinematography**
**Cinematographic studios, see 97.200.10*
- 37.060.01 Cinematography in general
 - 37.060.10 Motion picture equipment
 - 37.060.20 Motion picture films. Cartridges
 - 37.060.99 Other standards related to cinematography
- 37.080 Document imaging applications**
**Including micrographic, electronic and optical applications*
**Optical storage devices, see 35.220.30*
- 37.100 Graphic technology**
- 37.100.01 Graphic technology in general
**Including proof corrections*
 - 37.100.10 Reproduction equipment
**Including printing, copying and duplicating machines, bookbinding equipment, etc.*
 - 37.100.20 Materials for graphic technology
**Inks, see 87.080*
 - 37.100.99 Other standards related to graphic technology

39 PRECISION MECHANICS. JEWELLERY

- 39.020 Precision mechanics**
**Including microsystems*
- 39.040 Horology**
- 39.040.01 Horology in general
 - 39.040.10 Watches
 - 39.040.20 Clocks
 - 39.040.99 Other time-measuring instruments
- 39.060 Jewellery**
**Including precious metals, precious and semi-precious stones*
**Industrial diamonds, see 25.100*

43 ROAD VEHICLES ENGINEERING

- 43.020 Road vehicles in general**
**Including testing and recycling of road vehicles*
**Road transport, see 03.220.20*
**Transport exhaust emissions, see 13.040.50*

- 43.040 Road vehicle systems**
**Electric road vehicle systems, see 43.120*
**Motorcycle and moped systems, see 43.140*
**Cycle systems, see 43.150*
- 43.040.01 Road vehicle systems in general
43.040.10 Electrical and electronic equipment
43.040.15 Car informatics. On board computer systems
**Including navigation systems, car radio, etc.*
43.040.20 Lighting, signalling and warning devices
43.040.30 Indicating and control devices
43.040.40 Braking systems
43.040.50 Transmissions, suspensions
**Including clutches, gearboxes, power-steering systems, cardan shafts, differentials, wheels, rims, etc.*
**Tyres for road vehicles, see 83.160.10*
43.040.60 Bodies and body components
**Including vehicle frame and structure, heating devices, air-conditioning systems for passenger/driver compartments, roof load carriers, etc.*
**Loading compartments, see 43.080.10*
43.040.65 Glazing and wiper systems
**Including cleaning, defrosting and demisting devices, mirrors, etc.*
43.040.70 Couplings
**Including towing attachments and fifth wheel assemblies*
43.040.80 Crash protection and restraint systems
**Including airbags, safety belts, traffic accident issues and safety enhancement matters*
43.040.99 Other road vehicle systems
- 43.060 Internal combustion engines for road vehicles**
**Standards for internal combustion engines for general use, see 27.020*
- 43.060.01 Internal combustion engines for road vehicles in general
43.060.10 Engine block and internal components
43.060.20 Pressure charging and air/exhaust gas ducting systems
43.060.30 Cooling systems. Lubricating systems
**Antifreezes, see 71.100.45*
**Lubricants, see 75.100*
43.060.40 Fuel systems
43.060.50 Electrical and electronic equipment. Control systems
**Including ignition systems and starter motors*
43.060.99 Other components and systems of internal combustion engines
- 43.080 Commercial vehicles**
**Road vehicle systems, see 43.040*
**Tyres for road vehicles, see 83.160.10*
- 43.080.01 Commercial vehicles in general
43.080.10 Trucks and trailers
**Including tanker trucks and loading compartments*
**Industrial trucks, see 53.060*
43.080.20 Buses
43.080.99 Other commercial vehicles
- 43.100 Passenger cars. Caravans and light trailers**
**Road vehicle systems, see 43.040*
**Tyres for road vehicles, see 83.160.10*
**Camping equipment, see 97.200.30*
- 43.120 Electric road vehicles**
**Including their components and systems*
**Tyres for road vehicles, see 83.160.10*
- 43.140 Motorcycles and mopeds**
**Including their components and systems*
**Tyres for road vehicles, see 83.160.10*

- 43.150 Cycles**
**Including their components and systems*
**Tyres for road vehicles, see 83.160.10*
- 43.160 Special purpose vehicles**
**Including waste collection vehicles and components and systems for special purpose vehicles*
**Fire-fighting vehicles, see 13.220.10*
**Mobile cranes, see 53.020.20*
**Earth-moving machinery, see 53.100*
**Agricultural tractors and trailed vehicles, see 65.060.10*
- 43.180 Diagnostic, maintenance and test equipment**
**Including repairing facilities*
**Petrol stations, see 75.200*
-

45 RAILWAY ENGINEERING

- 45.020 Railway engineering in general**
**Railway traffic, see 03.220.30*
**Construction of railways, see 93.100*
- 45.040 Materials and components for railway engineering**
- 45.060 Railway rolling stock**
**Including materials, components, electric and electronic equipment for railway rolling stock*
- 45.060.01 Railway rolling stock in general
- 45.060.10 Tractive stock
**Electric traction equipment, see 29.280*
- 45.060.20 Trailing stock
**Including tank wagons*
- 45.080 Rails and railway components**
**Including track components*
- 45.100 Cableway equipment**
**Including ropeway equipment*
- 45.120 Equipment for railway/cableway construction and maintenance**
-

47 SHIPBUILDING AND MARINE STRUCTURES

- 47.020 Shipbuilding and marine structures in general**
**Including offshore structures, except offshore structures for petroleum and natural gas industries, and seabed mining*
**Water transport, see 03.220.40*
**Offshore structures for seabed mining, see 73.100.30*
**Offshore structures for petroleum and natural gas industries, see 75.180.10*
- 47.020.01 General standards related to shipbuilding and marine structures
- 47.020.05 Materials and components for shipbuilding
- 47.020.10 Hulls and their structure elements
- 47.020.20 Marine engines and propulsion systems
**Standards for internal combustion engines for general use, see 27.020*
- 47.020.30 Piping systems
- 47.020.40 Lifting and cargo handling equipment
- 47.020.50 Deck equipment and installations

- 47.020.60 Electrical equipment of ships and of marine structures
- 47.020.70 Navigation and control equipment
 - *Radiocommunications equipment, see 33.060*
- 47.020.80 Accommodation spaces
- 47.020.85 Cargo spaces
 - *Including tanks and tankers*
- 47.020.90 Marine ventilation, air conditioning and heating systems
- 47.020.99 Other standards related to shipbuilding and marine structures

47.040 Seagoing vessels
**Including their systems and components*

47.060 Inland navigation vessels
**Including their systems and components*

47.080 Small craft
**Including small craft systems and components, and life-saving appliances*
**Personal flotation devices (life jackets), see 13.340.70*

49 AIRCRAFT AND SPACE VEHICLE ENGINEERING

49.020 Aircraft and space vehicles in general
**Including aircraft performance, flight dynamics, etc.*
**Air transport, see 03.220.50*

49.025 Materials for aerospace construction

- 49.025.01 Materials for aerospace construction in general
- 49.025.05 Ferrous alloys in general
- 49.025.10 Steels
- 49.025.15 Non-ferrous alloys in general
- 49.025.20 Aluminium
- 49.025.30 Titanium
- 49.025.40 Rubber and plastics
- 49.025.50 Adhesives
- 49.025.60 Textiles
 - *Including textile glass and coated fabrics*
- 49.025.99 Other materials

49.030 Fasteners for aerospace construction
**Fasteners for general use, see 21.060*

- 49.030.01 Fasteners in general
- 49.030.10 Screw threads
 - *Screw threads for general use, see 21.040*
- 49.030.20 Bolts, screws, studs
- 49.030.30 Nuts
- 49.030.40 Pins, nails
- 49.030.50 Washers and other locking elements
- 49.030.60 Rivets
- 49.030.99 Other fasteners

49.035 Components for aerospace construction
**Tyres for aircraft, see 83.160.20*

49.040 Coatings and related processes used in aerospace industry
**Coatings for general use, see 25.220*

49.045 Structure and structure elements

49.050 Aerospace engines and propulsion systems
**Including fuel systems*

- 49.060 Aerospace electric equipment and systems**
**Including Avionics*
- 49.080 Aerospace fluid systems and components**
- 49.090 On-board equipment and instruments**
**Including navigation instruments and telecommunications equipment*
- 49.095 Passenger and cabin equipment**
- 49.100 Ground service and maintenance equipment**
- 49.120 Cargo equipment**
**Air mode containers, pallets and nets, see 55.180.30*
- 49.140 Space systems and operations**
**Including space data and information transfer systems, and ground support equipment for launch site operations*

53 MATERIALS HANDLING EQUIPMENT

- 53.020 Lifting equipment**
**Lifting equipment for shipbuilding, see 47.020.40*
**Lifts and escalators, see 91.140.90*
- 53.020.01 Lifting appliances in general
**Lifting platforms for disabled people, see 11.180.10*
- 53.020.20 Cranes
**Including mobile cranes, tower cranes, jib cranes, bridge cranes, etc.*
- 53.020.30 Accessories for lifting equipment
**Including lifting hooks, shackles, link chains, wire ropes, etc.*
**Wire ropes and link chains for general use, see 77.140.65*
- 53.020.99 Other lifting equipment
**Including elevating work platforms*

- 53.040 Continuous handling equipment**
- 53.040.01 Continuous handling equipment in general
- 53.040.10 Conveyors
- 53.040.20 Components for conveyors
**Including conveyor belts, chains, chain wheels, etc.*
- 53.040.30 Pneumatic transport and its components
- 53.040.99 Other continuous handling equipment

- 53.060 Industrial trucks**
**Including fork-lift trucks, sliding platforms, etc.*
**Trucks and trailers, see 43.080.10*

- 53.080 Storage equipment**
**Including loading devices, shelves, etc.*
**Storing and warehousing, see 55.220*
**Installations for storage of agricultural produce, see 65.040.20*
**Shelving for shops, see 97.130.10*

- 53.100 Earth-moving machinery**
**Including tractors, excavators, loaders, graders, etc.*

- 53.120 Equipment for manual handling**
**Including shovels, spades, crowbars, picks, etc.*

55 PACKAGING AND DISTRIBUTION OF GOODS

- 55.020 Packaging and distribution of goods in general**
- 55.040 Packaging materials and accessories**
**Including wrappers, paper, films, foils, cords, sealing devices, cushioning, etc.*
**Adhesive tapes for general purposes, see 83.180*
- 55.060 Spools. Bobbins**
**Including holders, supports, etc. for externally wound or mounted material*
**Photographic and cinematographic film rolls, cores, spools, reels, etc., see 37.040.20*
**Photographic film rolls, cores, spools, reels, etc., see 37.060.20*
**Cones, tubes, beams, etc. for textile materials, see 59.120.20*
- 55.080 Sacks. Bags**
**Including sachets, envelopes*
- 55.100 Bottles. Pots. Jars**
**Small containers for liquids and their closures*
- 55.120 Cans. Tins. Tubes**
**Light gauge metal and plastics containers*
- 55.130 Aerosol containers**
- 55.140 Barrels. Drums. Canisters**
**Containers mainly for transportation of fluids, including also casks, pails, large tin cans for shipping materials, etc.*
**Fluid storage devices, see 23.020*
- 55.160 Cases. Boxes. Crates**
**Containers for solid goods or objects and bulk materials*
- 55.180 Freight distribution of goods**
55.180.01 Freight distribution of goods in general
55.180.10 General purpose containers
55.180.20 General purpose pallets
55.180.30 Air mode containers, pallets and nets
55.180.40 Complete, filled transport packages
**Including reusable packages and unit loads*
55.180.99 Other standards related to freight distribution of goods
**Including intermediate bulk containers*
- 55.200 Packaging machinery**
**Including labelling, marking, branding, filling, sealing machines, etc.*
- 55.220 Storing. Warehousing**
**Storage equipment, see 53.080*
- 55.230 Distribution and vending machines**
**Including distribution of tickets, food, beverages, tobacco products, etc.*

59 TEXTILE AND LEATHER TECHNOLOGY

59.020 Processes of the textile industry

59.040 Textile auxiliary materials

**Including feathers and down*

**Surface active agents, see 71.100.40*

59.060 Textile fibres

59.060.01 Textile fibres in general
**Including mixtures of fibres*

59.060.10 Natural fibres

59.060.20 Man-made fibres

59.060.30 Mineral and metal fibres

59.060.99 Other textile fibres

59.080 Products of the textile industry

**Materials for the reinforcement of composites, see 59.100*

**Fishing nets, see 65.150*

**Upholstery, see 97.140*

**Home textiles and linen, see 97.160*

59.080.01 Textiles in general
**Including colour fastness of textiles*

59.080.20 Yarns
**Including plied yarns, textured yarns, threads*

59.080.30 Textile fabrics
**Including nonwovens, felts, lace, etc.*

59.080.40 Coated fabrics

59.080.50 Ropes
**Including strings, straps, bands*
**Wire ropes for lifting, see 53.020.30*
**Steel wire ropes, see 77.140.65*

59.080.60 Textile floor coverings
**Including carpets, rugs, floor mats, etc.*
**Non-textile floor coverings, see 97.150*

59.080.70 Geotextiles
**Including geosynthetics*

59.080.99 Other products of the textile industry

59.100 Materials for the reinforcement of composites

59.100.01 Materials for the reinforcement of composites in general

59.100.10 Textile glass materials

59.100.20 Carbon materials

59.100.30 Aramide materials

59.100.99 Other materials for the reinforcement of composites

59.120 Textile machinery

59.120.01 Textile machinery in general

59.120.10 Spinning, twisting and texturing machines
**Including machines and equipment for manufacturing man-made filaments and fibres and for preparing fibres for spinning*

59.120.20 Winding machines and equipment
**Including machines and equipment for reeling, balling, warping, sizing, beaming, etc. of yarns*

59.120.30 Looms. Weaving machines

59.120.40 Knitting machines
**Including household knitting machines*

59.120.50 Dyeing and finishing equipment
**Laundry appliances, see 97.060*

59.120.99 Other textile machinery

- 59.140 Leather technology**
**Including fur and imitation leather*
**Footwear, see 61.060*
**Sewing machines and machines for footwear production, see 61.080*
- 59.140.01 Leather technology in general
59.140.10 Processes and auxiliary materials
59.140.20 Raw skins, hides and pelts
59.140.30 Leather and furs
59.140.35 Leather products
**Including trunks, suitcases, handbags, purses, wallets, dog-collars, etc. made of materials other than leather*
**Products of the clothing industry, see 61*
- 59.140.40 Machines and equipment for leather and fur production
59.140.99 Other standards related to leather technology
-

61 CLOTHING INDUSTRY

- 61.020 Clothes**
**Including underwear, nightwear, knitwear, military clothing, hosiery, etc. and their labelling and size coding schemes*
**Medical garments, see 11.140*
**Protective clothing, see 13.340.10*
- 61.040 Headgear. Clothing accessories. Fastening of clothing**
**Including ties, gloves, scarves, handkerchiefs, belts, braces, buttons, zip-fasteners, umbrellas, etc.*
**Protective headgear, see 13.340.20*
**Protective gloves, see 13.340.40*
- 61.060 Footwear**
**Including shoelaces*
**Protective footwear, see 13.340.50*
- 61.080 Sewing machines and other equipment for the clothing industry**
**Including household sewing machines*
**Washing machines, driers, ironing and pressing appliances, see 97.060*
-

65 AGRICULTURE

- 65.020 Farming and forestry**
**Pedology, soil analysis, see 13.080*
**Logging, see 79.020*
- 65.020.01 Farming and forestry in general
65.020.20 Plant growing
**Including horticulture, floriculture, seeds, plant diseases*
- 65.020.30 Animal husbandry and breeding
**Including sanitary inspection*
**Veterinary medicine, see 11.220*
- 65.020.40 Landscaping and silviculture
65.020.99 Other standards related to farming and forestry

- 65.040 Farm buildings, structures and installations**
- 65.040.01 Farm buildings and installations in general
 - 65.040.10 Livestock buildings, installations and equipment
**Including milking machines*
 - 65.040.20 Buildings and installations for processing and storage of agricultural produce
**Including slaughterhouses and related equipment*
 - 65.040.30 Greenhouses and other installations
 - 65.040.99 Other standards related to farm buildings and installations
- 65.060 Agricultural machines, implements and equipment**
**Tyres for agricultural machinery, see 83.160.30*
- 65.060.01 Agricultural machines and equipment in general
 - 65.060.10 Agricultural tractors and trailed vehicles
 - 65.060.20 Soil-working equipment
 - 65.060.25 Equipment for storage, preparation and distribution of fertilizers
 - 65.060.30 Sowing and planting equipment
 - 65.060.35 Irrigation and drainage equipment
 - 65.060.40 Plant care equipment
 - 65.060.50 Harvesting equipment
 - 65.060.60 Viticultural and wine-making equipment
 - 65.060.70 Horticultural equipment
**Including lawnmowers, equipment for olive cultivation and olive production*
 - 65.060.80 Forestry equipment
**Including chain- and brush-saws*
 - 65.060.99 Other agricultural machines and equipment
- 65.080 Fertilizers**
**Including soil conditioners and culture medium*
- 65.100 Pesticides and other agrochemicals**
- 65.100.01 Pesticides and other agrochemicals in general
 - 65.100.10 Insecticides
**Wood-protecting chemicals, see 71.100.50*
 - 65.100.20 Herbicides
 - 65.100.30 Fungicides
**Wood-protecting chemicals, see 71.100.50*
 - 65.100.99 Other pesticides and agrochemicals
- 65.120 Animal feeding stuffs**
**Microbiology of animal feeding stuffs, see 07.100.30*
- 65.140 Beekeeping**
**Including equipment and installations for beekeeping*
**Honey, see 67.180.10*
- 65.145 Hunting**
**Including equipment and installations for hunting*
- 65.150 Fishing and fish breeding**
**Including hunting of marine mammals and reptiles, collection and breeding of aquatic molluscs and other marine products, equipment and installations for fishing and fish breeding, etc.*
**Water for fish breeding, see 13.060.25*
**Fish and fishery products, see 67.120.30*
- 65.160 Tobacco, tobacco products and related equipment**

67 FOOD TECHNOLOGY

- 67.020 Processes in the food industry**
**Including food hygiene and food safety*
- 67.040 Food products in general**
- 67.050 General methods of tests and analysis for food products**
**Food microbiology, see 07.100.30*
**Sensory analysis, see 67.240*
- 67.060 Cereals, pulses and derived products**
**Including grains, corn, flours, baked products, etc.*
- 67.080 Fruits. Vegetables**
**Including canned, dried and quick-frozen fruits and vegetables*
**Fruit and vegetable juices and nectars, see 67.160.20*
- 67.080.01 Fruits, vegetables and derived products in general
- 67.080.10 Fruits and derived products
**Including nuts*
- 67.080.20 Vegetables and derived products
**Including tomato concentrates, ketchup, etc.*
- 67.100 Milk and milk products**
- 67.100.01 Milk and milk products in general
- 67.100.10 Milk and processed milk products
**Including dried milk, condensed milk and evaporated milk*
- 67.100.20 Butter
- 67.100.30 Cheese
**Including cottage cheese, whey cheese*
- 67.100.40 Ice cream and ice confectionery
**Including sorbets*
- 67.100.99 Other milk products
- 67.120 Meat, meat products and other animal produce**
**Including frozen products*
- 67.120.01 Animal produce in general
- 67.120.10 Meat and meat products
- 67.120.20 Poultry and eggs
- 67.120.30 Fish and fishery products
**Including aquatic molluscs and other marine products*
- 67.120.99 Other animal produce
- 67.140 Tea. Coffee. Cocoa**
- 67.140.10 Tea
**Including herb teas*
- 67.140.20 Coffee and coffee substitutes
- 67.140.30 Cocoa
- 67.160 Beverages**
- 67.160.01 Beverages in general
- 67.160.10 Alcoholic beverages
**Including beer, wine, spirits, etc.*
- 67.160.20 Non-alcoholic beverages
**Including juices, nectars, mineral waters, lemonades, root beer, cola drinks, etc.*
**Tea, coffee, cocoa, see 67.140*
- 67.180 Sugar. Sugar products. Starch**
- 67.180.10 Sugar and sugar products
**Including molasses, sweets, sugar confectionary, honey, etc.*
- 67.180.20 Starch and derived products
**Including glucose syrups, etc.*

- 67.190 Chocolate**
- 67.200 Edible oils and fats. Oilseeds**
67.200.10 Animal and vegetable fats and oils
**Butter, see 67.100.20*
67.200.20 Oilseeds
- 67.220 Spices and condiments. Food additives**
67.220.10 Spices and condiments
67.220.20 Food additives
**Including salt, vinegar, food preservation additives, etc.*
- 67.230 Prepackaged and prepared foods**
**Including baby food*
- 67.240 Sensory analysis**
- 67.250 Materials and articles in contact with foodstuffs**
**Including catering containers, and materials and articles in contact with drinking water*
- 67.260 Plants and equipment for the food industry**
**Refrigerating equipment, see 27.200*
**Cold rooms, see 97.130.20*
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71 CHEMICAL TECHNOLOGY

- 71.020 Production in the chemical industry**
**Including plant layout and services, process design and control, processing operations, security measures, etc.*
- 71.040 Analytical chemistry**
**This group includes standards for general use*
- 71.040.01 Analytical chemistry in general
71.040.10 Chemical laboratories. Laboratory equipment
**Including hydrometers, alcoholometers, etc.*
**Apparatus for measurement of volume, mass, density, viscosity, see 17.060*
**Spectroscopes, see 17.180.30*
**Temperature-measuring instruments, see 17.200.20*
**Laboratory ware, see 71.040.20*
- 71.040.20 Laboratory ware and related apparatus
71.040.30 Chemical reagents
**Including reference materials*
- 71.040.40 Chemical analysis
**Including analysis of gases and surface chemical analysis*
- 71.040.50 Physicochemical methods of analysis
**Including spectrophotometric and chromatographic analysis*
- 71.040.99 Other standards related to analytical chemistry
- 71.060 Inorganic chemicals**
- 71.060.01 Inorganic chemicals in general
71.060.10 Chemical elements
71.060.20 Oxides
**Including dioxides, peroxides, etc.*
- 71.060.30 Acids
71.060.40 Bases
71.060.50 Salts
71.060.99 Other inorganic chemicals

- 71.080 Organic chemicals**
71.080.01 Organic chemicals in general
71.080.10 Aliphatic hydrocarbons
71.080.15 Aromatic hydrocarbons
71.080.20 Halogenated hydrocarbons
71.080.30 Organic nitrogen compounds
71.080.40 Organic acids
71.080.50 Anhydrides
71.080.60 Alcohols. Ethers
71.080.70 Esters
71.080.80 Aldehydes and ketones
71.080.90 Phenols
71.080.99 Other organic chemicals
- 71.100 Products of the chemical industry**
**Photographic chemicals, see 37.040.30*
**Raw materials for rubber and plastics, see 83.040*
**Paints and varnishes, see 87.040*
**Inks, see 87.080*
71.100.01 Products of the chemical industry in general
71.100.10 Materials for aluminium production
71.100.20 Gases for industrial application
**Including compressed air and hydrogen*
**Hydrogen technologies, see 27.075*
**Liquefied petroleum gases, see 75.160.30*
71.100.30 Explosives. Pyrotechnics and fireworks
71.100.35 Chemicals for industrial and domestic disinfection purposes
**Medical disinfectants and antiseptics, see 11.080.20*
71.100.40 Surface active agents
71.100.45 Refrigerants and antifreezes
71.100.50 Wood-protecting chemicals
71.100.55 Silicones
71.100.60 Essential oils
71.100.70 Cosmetics. Toiletries
71.100.80 Chemicals for purification of water
71.100.99 Other products of the chemical industry
- 71.120 Equipment for the chemical industry**
**Transport of dangerous chemicals, see 13.300*
71.120.01 Equipment for the chemical industry in general
71.120.10 Reaction vessels and their components
71.120.20 Columns
71.120.30 Heat exchangers
71.120.99 Other equipment for the chemical industry
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73 MINING AND MINERALS

- 73.020 Mining and quarrying**
**Including exploration, opening-up, development, working of mineral deposits, drilling, construction of mines, mining operations, processing of minerals, etc.*
- 73.040 Coals**
**Including lignites*
**Coal products, see 75.160.10*
- 73.060 Metalliferous minerals and their concentrates**
**Uranium-containing minerals, see 27.120.30*
73.060.01 Metalliferous minerals in general
73.060.10 Iron ores
73.060.20 Manganese ores
73.060.30 Chromium ores
73.060.40 Aluminium ores
73.060.99 Other metalliferous minerals

- 73.080 Non-metalliferous minerals**
**Including mica, fluorspar, etc.*
**Industrial diamonds, see 25.100*
**Precious and semi-precious stones, see 39.060*
- 73.100 Mining equipment**
**Electrical apparatus for explosive atmospheres, see 29.260.20*
- 73.100.01 Mining equipment in general
 73.100.10 Tunnelling and tubing equipment
 73.100.20 Ventilation, air-conditioning and illumination equipment
 73.100.30 Equipment for drilling and mine excavation
**Including equipment for seabed mining*
**Drilling equipment for the petroleum industry, see 75.180.10*
- 73.100.40 Haulage and hoisting equipment
 73.100.99 Other mining equipment
- 73.120 Equipment for processing of minerals**
**Including equipment for milling, sizing, separation, flotation, concentration, etc.*

75 PETROLEUM AND RELATED TECHNOLOGIES

- 75.020 Extraction and processing of petroleum and natural gas**
- 75.040 Crude petroleum**
- 75.060 Natural gas**
- 75.080 Petroleum products in general**
- 75.100 Lubricants, industrial oils and related products**
**Including mineral oils, fluids for metal working and for temporary protection against corrosion*
**Lubrication systems, see 21.260*
**Insulating oils, see 29.035.40*
- 75.120 Hydraulic fluids**
**Fluid power systems, see 23.100*
- 75.140 Waxes, bituminous materials and other petroleum products**
**Asphalts for building, see 91.100.50*
**Asphalts for road construction, see 93.080.20*
- 75.160 Fuels**
- 75.160.01 Fuels in general
 75.160.10 Solid fuels
**Including coal products, coke, peat, wood, derivatives of coal pyrolysis, etc.*
**Coals, see 73.040*
- 75.160.20 Liquid fuels
**Including gasoline, diesel, kerosene, etc.*
- 75.160.30 Gaseous fuels
**Including liquefied petroleum gases*
**Hydrogen, see 71.100.20*
**Natural gas, see 75.060*
- 75.180 Equipment for petroleum and natural gas industries**
- 75.180.01 Equipment for petroleum and natural gas industries in general
 75.180.10 Exploratory, drilling and extraction equipment
**Including offshore structures*
- 75.180.20 Processing equipment
 75.180.30 Volumetric equipment and measurements
 75.180.99 Other equipment for petroleum and natural gas industries

- 75.200 Petroleum products and natural gas handling equipment**
**Including petroleum and natural gas storage devices, distribution systems, pipelines, petrol stations, dispensing devices, etc.*
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77 METALLURGY

77.020 Production of metals

77.040 Testing of metals

- 77.040.01 Testing of metals in general
77.040.10 Mechanical testing of metals
**Mechanical testing in general, see 19.060*
**Mechanical testing of welded joints, see 25.160.40*
77.040.20 Non-destructive testing of metals
**Non-destructive testing in general, see 19.100*
**Non-destructive testing of welded joints, see 25.160.40*
77.040.30 Chemical analysis of metals
**Chemical analysis in general, see 71.040.40*
**Chemical analysis of ferrous metals, see 77.080*
**Chemical analysis of ferroalloys, see 77.100*
**Chemical analysis of non-ferrous metals, see 77.120*
**Chemical analysis of sintered metals and hard metals, see 77.160*
77.040.99 Other methods of testing of metals

77.060 Corrosion of metals

**Surface treatment and coating, see 25.220*

77.080 Ferrous metals

**Including classification, designation, sampling, chemical analysis, etc.*
**Dimensions and quality grades of iron and steel products, see 77.140*

- 77.080.01 Ferrous metals in general
77.080.10 Irons
77.080.20 Steels

77.100 Ferroalloys

**Including classification, designation, sampling, chemical analysis, etc.*

77.120 Non-ferrous metals

**Including classification, designation, sampling, chemical analysis, etc.*
**Precious metals for dentistry, see 11.060.10*
**Precious metals for jewellery, see 39.060*
**Dimensions and quality grades of non-ferrous metal products, see 77.150*

- 77.120.01 Non-ferrous metals in general
77.120.10 Aluminium and aluminium alloys
77.120.20 Magnesium and magnesium alloys
77.120.30 Copper and copper alloys
77.120.40 Nickel, chromium and their alloys
77.120.50 Titanium and titanium alloys
77.120.60 Lead, zinc, tin and their alloys
77.120.70 Cadmium, cobalt and their alloys
77.120.99 Other non-ferrous metals and their alloys

- 77.140 Iron and steel products**
**Standards containing quality grades and form of products should be classified in both types of relevant sub-groups*
**Steel products for aerospace construction, see 49.025.10*
- 77.140.01 Iron and steel products in general
77.140.10 Heat-treatable steels
77.140.15 Steels for reinforcement of concrete
77.140.20 Stainless steels
**Including alloyed steels, corrosion-resistant steels, heat-resisting steels, etc.*
- 77.140.25 Spring steels
77.140.30 Steels for pressure purposes
**Steels for pressure pipes and tubes for specific use, see 77.140.75*
- 77.140.35 Tool steels
77.140.40 Steels with special magnetic properties
77.140.45 Non-alloyed steels
77.140.50 Flat steel products and semi-products
**Including plate, sheet and strip*
**Steel strips for springs, see 77.140.25*
- 77.140.60 Steel bars and rods
77.140.65 Steel wire, wire ropes and link chains
**Lifting link chains and wire ropes, see 53.020.30*
**Steel wire for springs, see 77.140.25*
- 77.140.70 Steel profiles
**Including sections*
- 77.140.75 Steel pipes and tubes for specific use
**Including hollow steel bars and sections for construction*
**Steel pipes for conducting fluids, see 23.040.10*
- 77.140.80 Iron and steel castings
77.140.85 Iron and steel forgings
77.140.99 Other iron and steel products
- 77.150 Products of non-ferrous metals**
**Including products of non-ferrous metal alloys*
**Products of non-ferrous metals for aerospace construction, see 49.025*
- 77.150.01 Products of non-ferrous metals in general
77.150.10 Aluminium products
77.150.20 Magnesium products
77.150.30 Copper products
77.150.40 Nickel and chromium products
77.150.50 Titanium products
77.150.60 Lead, zinc and tin products
77.150.70 Cadmium and cobalt products
77.150.99 Other products of non-ferrous metals
- 77.160 Powder metallurgy**
**Including sintered metal materials and hardmetals*
- 77.180 Equipment for the metallurgical industry**

79 WOOD TECHNOLOGY

- 79.020 Wood technology processes**
**Including logging and wood treatment*
**Wood-protecting chemicals, see 71.100.50*
- 79.040 Wood, sawlogs and sawn timber**

- 79.060 Wood-based panels**
79.060.01 Wood-based panels in general
79.060.10 Plywood
79.060.20 Fibre and particle boards
79.060.99 Other wood-based panels
- 79.080 Semi-manufactures of timber**
**Including parquet, wood paving, handles, etc.*
- 79.100 Cork and cork products**
- 79.120 Woodworking equipment**
79.120.01 Woodworking equipment in general
79.120.10 Woodworking machines
**Chain- and brush-saws, see 65.060.80*
79.120.20 Woodworking tools
79.120.99 Other woodworking equipment
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81 GLASS AND CERAMICS INDUSTRIES

- 81.020 Processes in the glass and ceramics industries**
- 81.040 Glass**
81.040.01 Glass in general
81.040.10 Raw materials and raw glass
81.040.20 Glass in building
81.040.30 Glass products
**Bottles, pots, jars, see 55.100*
**Laboratory glassware, see 71.040.20*
- 81.060 Ceramics**
**Including glass-ceramics*
81.060.01 Ceramics in general
81.060.10 Raw materials
81.060.20 Ceramic products
**Ceramic tiles, see 91.100.23*
**Ceramic building products, see 91.100.25*
**Sanitary ceramic products, see 91.140.70*
81.060.30 Advanced ceramics
81.060.99 Other standards related to ceramics
- 81.080 Refractories**
**Including ceramic refractories*
- 81.100 Equipment for the glass and ceramics industries**
-

83 RUBBER AND PLASTIC INDUSTRIES

- 83.020 Manufacturing processes in the rubber and plastics industries**
- 83.040 Raw materials for rubber and plastics**
83.040.01 Raw materials for rubber and plastics in general
83.040.10 Latex and raw rubber
83.040.20 Rubber compounding ingredients
**Including carbon black, kaolin clay, etc.*
83.040.30 Auxiliary materials and additives for plastics
**Including fillers, extenders, hardeners, pigments, plasticizers, etc.*

- 83.060 Rubber**
**Raw rubber, see 83.040.10*
- 83.080 Plastics**
 83.080.01 Plastics in general
 83.080.10 Thermosetting materials
**Including ebonite*
**Silicones, see 71.100.55*
 83.080.20 Thermoplastic materials
- 83.100 Cellular materials**
- 83.120 Reinforced plastics**
**Materials for the reinforcement of plastics, see 59.100*
- 83.140 Rubber and plastics products**
**Moulding or extrusion products should be classified according to specific products*
**Transmission belts, see 21.220.10*
**Conveyor belts, see 53.040.20*
**Rubber and plastics coated fabrics, see 59.080.40*
**Footwear, see 61.060*
**Tyres, see 83.160*
- 83.140.01 Rubber and plastics products in general
 83.140.10 Films and sheets
**Including plates*
 83.140.20 Laminated sheets
 83.140.30 Plastics pipes and fittings for non fluid use
**Plastics pipes, fittings and valves for general use, see 23.040.20, 23.040.45 and 23.060*
 83.140.40 Hoses
**Hoses for general use, see 23.040.70*
 83.140.50 Seals
**Seals for general use, see 21.140 and 23.040.80*
 83.140.99 Other rubber and plastics products
- 83.160 Tyres**
**Including tubes and valves*
- 83.160.01 Tyres in general
 83.160.10 Road vehicle tyres
**Including cycle tyres, and tyre retreading and repair processes*
 83.160.20 Aircraft tyres
 83.160.30 Tyres for agricultural machinery
 83.160.99 Other tyres
- 83.180 Adhesives**
**Including adhesive tapes*
**Adhesive tapes for electrical insulation purposes, see 29.035.20*
- 83.200 Equipment for the rubber and plastics industries**

85 PAPER TECHNOLOGY

- 85.020 Paper production processes**
**Including paper recycling*
- 85.040 Pulps**
- 85.060 Paper and board**

- 85.080 Paper products**
**Including paper based stationery*
**Other forms of stationery (non-paper based),*
see 35.260 and 97.180
- 85.080.01 Paper products in general
85.080.10 Office paper
85.080.20 Tissue paper
85.080.30 Cardboard
**Paper for packaging, see 55.040*
85.080.99 Other paper products
- 85.100 Equipment for the paper industry**
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87 PAINT AND COLOUR INDUSTRIES

- 87.020 Paint coating processes**
**Surface preparation for painting, see 25.220.10*
- 87.040 Paints and varnishes**
**Including coating powders, paint coatings and protective paint systems*
- 87.060 Paint ingredients**
87.060.01 Paint ingredients in general
87.060.10 Pigments and extenders
87.060.20 Binders
87.060.30 Solvents
87.060.99 Other paint ingredients
- 87.080 Inks. Printing inks**
**Materials for graphic technology, see 37.100.20*
- 87.100 Paint coating equipment**
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91 CONSTRUCTION MATERIALS AND BUILDING

- 91.010 Construction industry**
91.010.01 Construction industry in general
91.010.10 Legal aspects
91.010.20 Contractual aspects
91.010.30 Technical aspects
**Including tolerances, modular coordination, etc.*
**Construction drawings, see 01.100.30*
91.010.99 Other aspects
- 91.020 Physical planning. Town planning**
- 91.040 Buildings**
91.040.01 Buildings in general
**Including building environment design*
**Building materials, see 91.100*
91.040.10 Public buildings
**Including ecclesiastical buildings and hospitals*
91.040.20 Buildings for commerce and industry
91.040.30 Residential buildings
91.040.99 Other buildings

- 91.060 Elements of buildings**
**Foundations, see 93.020*
- 91.060.01 Elements of buildings in general
- 91.060.10 Walls. Partitions. Façades
- 91.060.20 Roofs
**Including related elements (gutters, etc.)*
- 91.060.30 Ceilings. Floors. Stairs
**Including screeds, ramps, etc.*
- 91.060.40 Chimneys, shafts, ducts
**Including flues and flue pipes*
- 91.060.50 Doors and windows
**Including doorsets, their components, blinds, shutters*
**Door and window hardware, see 91.190*
- 91.060.99 Other elements of buildings
- 91.080 Structures of buildings**
**Including design, loading on and calculation of structures*
- 91.080.01 Structures of buildings in general
- 91.080.10 Metal structures
- 91.080.20 Timber structures
- 91.080.30 Masonry
- 91.080.40 Concrete structures
**Including the repair and protection of concrete products and structures*
- 91.080.99 Other structures
- 91.090 External structures**
**Including fences, gates, arches, sheds, garages, etc.*
- 91.100 Construction materials**
**Iron and steel products, see 77.140*
**Products of non-ferrous metals, see 77.150*
**Sawn timber, see 79.040*
**Wood-based panels, see 79.060*
**Glass, see 81.040.20*
**Plastics products, see 83.140*
- 91.100.01 Construction materials in general
- 91.100.10 Cement. Gypsum. Lime. Mortar
- 91.100.15 Mineral materials and products
**Including earth, sands, clay, slates, stones, etc.*
- 91.100.23 Ceramic tiles
- 91.100.25 Terracotta building products
**Including roofing tiles, bricks, etc.*
- 91.100.30 Concrete and concrete products
**Including admixtures*
- 91.100.40 Products in fibre-reinforced cement
- 91.100.50 Binders. Sealing materials
**Including geomembranes, asphalts for buildings, etc.*
- 91.100.60 Thermal and sound insulating materials
- 91.100.99 Other construction materials
- 91.120 Protection of and in buildings**
**Emergencies in buildings, see 13.200*
**Fire protection, see 13.220.20*
**Fire resistance of building materials and elements, see 13.220.50*
**Alarm and warning systems, see 13.320*
- 91.120.01 Protection of and in buildings in general
- 91.120.10 Thermal insulation of buildings
**Thermal insulation in general, see 27.220*
**Thermal insulating materials, see 91.100.60*
- 91.120.20 Acoustics in building. Sound insulation
**Acoustic measurements and noise abatement in general, see 17.140.01*
**Sound insulating materials, see 91.100.60*
- 91.120.25 Seismic and vibration protection
**Vibrations and vibration measurements, see 17.160*

- 91.120.30 Waterproofing
 - *Sealing materials, see 91.100.50*
- 91.120.40 Lightning protection
- 91.120.99 Other standards related to protection of and in buildings

- 91.140 Installations in buildings**
 - *Burners and boilers for industrial purposes, see 27.060*
 - *Heat pumps, see 27.080*
- 91.140.01 Installations in buildings in general
- 91.140.10 Central heating systems
 - *Including burners and boilers for central heating systems*
 - *Heating appliances, see 97.100*
- 91.140.30 Ventilation and air-conditioning systems
 - *Including ventilation ducts*
 - *Ventilators and air-conditioners, see 23.120*
- 91.140.40 Gas supply systems
 - *Including gas meters in buildings*
- 91.140.50 Electricity supply systems
 - *Including electric energy meters in buildings, emergency electrical supplies, etc.*
- 91.140.60 Water supply systems
 - *Including water meters in buildings*
 - *External water conveyance systems, see 93.025*
- 91.140.65 Water heating equipment
- 91.140.70 Sanitary installations
 - *Including bidets, kitchen sinks, baths, waste chutes, etc.*
- 91.140.80 Drainage systems
 - *Sewage water disposal and treatment, see 13.060.30*
 - *Drainage systems for rainwater, see 91.060.20*
 - *External sewage systems, see 93.030*
- 91.140.90 Lifts. Escalators
- 91.140.99 Other installations in buildings

- 91.160 Lighting**
 - *Including oil and gas lamps*
 - *Theatre, stage and studio lighting equipment, see 97.200.10*
- 91.160.01 Lighting in general
- 91.160.10 Interior lighting
 - *Including workplace lighting, emergency and safety lighting*
- 91.160.20 Exterior building lighting
 - *Including flood lighting*
 - *Street lighting and related equipment, see 93.080.40*

- 91.180 Interior finishing**
 - *Paint coating processes, see 87.020*

- 91.190 Building accessories**
 - *Including locks, buzzers, bells, bolts, door and window hardware, etc.*

- 91.200 Construction technology**
 - *Including measuring methods, construction sites, demolition of structures, etc.*

- 91.220 Construction equipment**
 - *Including scaffolding, mixers for concrete and mortar, etc.*
 - *Lifting equipment, see 53.020*
 - *Earth-moving machinery, see 53.100*

93 CIVIL ENGINEERING

- 93.010 Civil engineering in general**
**Construction drawings, see 01.100.30*
- 93.020 Earthworks. Excavations. Foundation construction. Underground works**
**Including geotechnics*
**Earth-moving machinery, see 53.100*
- 93.025 External water conveyance systems**
**Including buried and above ground installations*
**Internal water supply systems, see 91.140.60*
- 93.030 External sewage systems**
**Sewage water disposal and treatment, see 13.060.30*
**Internal drainage systems, see 91.140.80*
- 93.040 Bridge construction**
- 93.060 Tunnel construction**
- 93.080 Road engineering**
- 93.080.01 Road engineering in general
- 93.080.10 Road construction
**Including road maintenance equipment and road construction equipment*
- 93.080.20 Road construction materials
**Including asphalts, road pavements, etc.*
- 93.080.30 Road equipment and installations
**Including road traffic warning and control systems, devices and installations (speed controls, traffic signal installations, vehicle loop detectors, pavement markers, manholes, etc.)*
- 93.080.40 Street lighting and related equipment
- 93.080.99 Other standards related to road engineering
- 93.100 Construction of railways**
**Including the construction of tramways, funicular railways, cableways, rail traffic control equipment and installations, etc.*
**Rails and railway components, including track, see 45.080*
**Equipment for railway/cableway construction and maintenance, see 45.120*
- 93.110 Construction of ropeway**
**Ropeway equipment, see 45.100*
**Equipment for ropeway construction and maintenance, see 45.120*
- 93.120 Construction of airports**
**Including air transport control equipment and installations*
- 93.140 Construction of waterways, ports and dykes**
**Including river embankments, water transport control equipment and installations, etc.*
- 93.160 Hydraulic construction**
**Hydraulic energy equipment, see 27.140*

95 MILITARY ENGINEERING

95.020 Military engineering. Military affairs. Weapons
**Military clothing, see 61.020*

97 DOMESTIC AND COMMERCIAL EQUIPMENT. ENTERTAINMENT. SPORTS

97.020 Home economics in general
**Including consumer information*
**Washing, cleaning and removal services, see 03.080.30*
**Ventilators, air-conditioners, see 23.120*
**Hand-held electric tools, see 25.140.20*
**Household electronic appliances, see 33.160*
**Clocks and watches, see 39.040*
**Household sewing machines, see 61.080*

97.030 Domestic electrical appliances in general
**Including water-bed heaters and electric blankets*

97.040 Kitchen equipment

97.040.01 Kitchen equipment in general

97.040.10 Kitchen furniture
**Kitchen sinks, see 91.140.70*

97.040.20 Cooking ranges, working tables, ovens and similar
appliances
**Including microwave ovens and stove hoods*

97.040.30 Domestic refrigerating appliances
**Refrigerating technology, see 27.200*
**Refrigerated display cabinets and cold rooms, see 97.130.20*

97.040.40 Dishwashers

97.040.50 Small kitchen appliances
**Including food waste disposal units*

97.040.60 Cookware, cutlery and flatware
**Including table cutlery and table ware*

97.040.99 Other kitchen equipment

97.060 Laundry appliances

**Including washing-machines, dry-cleaners, driers, ironing and
pressing appliances, etc.*

97.080 Cleaning appliances

**Including vacuum cleaners, floor-cleaning machines, floor
polishers, steam cleaners, pressure cleaners, hand operated
cleaners, etc.*

97.100 Domestic, commercial and industrial heating appliances

**Including thermal storage room heating appliances*

**Burners and boilers, see 27.060*

**Central heating systems, see 91.140.10*

97.100.01 Heating appliances in general

97.100.10 Electric heaters

97.100.20 Gas heaters

97.100.30 Solid fuel heaters

97.100.40 Liquid fuel heaters

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- 97.130 Shop fittings**
- 97.130.01 Shop fittings in general
- 97.130.10 Shelving
**Shelves for storage purposes, see 53.080*
- 97.130.20 Commercial refrigerating appliances
**Including refrigerated display cabinets, cold rooms, etc.*
- 97.130.30 Trolleys for supermarket purposes
**Including baskets*
- 97.130.99 Other shop fittings
- 97.140 Furniture**
**Including upholstery, mattresses, office furniture, school furniture, etc.*
- 97.145 Ladders**
- 97.150 Non-textile floor coverings**
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- 97.160 Home textiles. Linen**
**Including duvets, blankets, bedding*
**Electric blankets, see 97.030*
- 97.170 Body care equipment**
**Including hair-driers, razors, shavers, toothbrushes, massage appliances, radiation skin treatment appliances, etc.*
- 97.180 Miscellaneous domestic and commercial equipment**
**Including scissors, aquarium equipment, articles for domestic animals, battery chargers, mops, insect electrocutors, lighters, matches, paper clips, pens, pencils, etc.*
- 97.190 Equipment for children**
**Including child safety requirements for other household equipment*
**Children's furniture, see 97.140*
**Playgrounds, see 97.200.40*
**Toys, see 97.200.50*
- 97.195 Items of art and handicrafts**
**Including equipment and materials for creating items of art and handicrafts*
- 97.200 Equipment for entertainment**
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**Including amusement rides and devices*
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97.220 Sports equipment and facilities

**Motorcycles, see 43.140*

**Cycles, see 43.150*

97.220.01 Sports equipment and facilities in general

97.220.10 Sports facilities

**Including swimming-pools, spas, solaria, sports fields, running-tracks, spectator facilities for sports, etc.*

97.220.20 Winter sports equipment

**Including ice hockey, snowboard, and ski equipment*

97.220.30 Indoor sports equipment

**Including equipment for gymnastics, volleyball, basketball, handball, home sports trainers, etc.*

97.220.40 Outdoor and water sports equipment

**Including equipment for mountaineering, football, tennis, swimming, diving, etc.*

**Personal flotation devices (life jackets), see 13.340.70*

**Small craft, see 47.080*

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99 (No title)

**This field is reserved for internal miscellaneous purposes*

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