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ZENTRALVERBAND  
SANITÄR  
HEIZUNG KLIMA

## **Data Quality Guideline of the HVAC Industry**

Version 8.0

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**Industry – Wholesale – Trade**



## **Preamble**

The objective of this Data Quality Guideline is to improve product data quality even further. In particular, new developments and associated new requirements on product master data need to be considered.

Any new Guideline is published on 1 April of a year, with a transition period of six months. A new DQG comes into effect immediately upon publication, and implementation is to commence without delay.

During the transition period, testing is done in accordance with two DQG versions. Special cases may be determined depending on complexity.

## **Introduction**

The continuous improvement of the quality of electronic product data represents the basis of any process optimization. This applies for instance to the handling of electronic order processes or the connection of different software systems. The market partners of the HVAC industry have shown a lot of commitment in this field over many years so that processes have been undergoing continuous improvement.

Achieving a higher product data quality is the common goal of all distribution levels and also encompasses the involvement of all market partners of the HVAC industry. In order to further optimize the standardized electronic data exchange – and in particular the quality of the product master data – in the future, harmonizing the standards and regulations existing in the field and documenting the partners' individual requirements are issues important to the industry, trade and crafts. This is intended to provide common ground for all those involved for the next steps to be taken while working towards improved data quality.

This document contains the definition and specification of product master data quality within the HVAC industry. All contents are first described in general terms. In addition, this document comprises four Annexes that complement the contents with aspects from the partners' distribution-level point of view.

This way, a compilation of all requirements on data quality is generated, in which all qualifying subareas are described in detail.

### Annex overview

Annex 1: Definition of Data Contents and Data Quality Principles

Annex 2: Data Quality Requirements of the DG Haustechnik

Annex 3: Data Quality Requirements of the ZVSHK

Annex 4: Code lists

The Data Quality Guideline as well as the associated Annexes are extended and updated on a regular basis. By signing the Annexes, the industry partners declare themselves in favour of the joint activities aimed at improving product data quality. The requirements listed contain content-related aspects regarding texts, media data, logistic data, etc. as well as deadline requirements regarding data provision.

The continuous development of requirements is accompanied by different expert groups and professional committees. The industry partners involved would like to say thank you for this work, especially to the Working Group Master Data Standardization. With the aid of this committee work, the continuous updating of the topic and related further process optimizations and cost-cutting measures can be advanced.

The *ARGE Neue Medien*, the *DG Haustechnik* and the *Zentralverband Sanitär Heizung Klima* are responsible for the content and hence to be contacted in case of queries.

The role of the industry in this context mainly consists in creating the data. The trade and the crafts function primarily as initiators for data content optimization. The *ARGE Neue Medien* is committed to taking care of its member companies directly and makes data quality management tools available through its platforms.

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## **Version history**

### **Data Quality Guideline of the HVAC industry as of 10 January 2021**

#### **Chapter 1    Assortment**

Enhancement of the A-products definition for variant manufacturers

#### **Chapter 10   Spare parts**

Enhancement of the definition for the provision of spare parts and exploded views

### **Data Quality Guideline of the HVAC industry as of 12 February 2020**

#### **Overview of the changes and supplements to DQR 5.2 Data Quality Guideline of the HVAC industry**

#### **Chapter 1    Assortment**

Textual adaptations

#### **Chapter 2    Up-to-dateness**

Textual adaptations

## 1 Assortment

Article master data map the entire assortment. All orderable products including spare parts are mandatory in the article master data. For variant manufacturers, this means all A-products including associated spare parts and product sets. A-products are products, which represent the major part of the sales. They are responsible for at least 80 % of the turnover.

The product typing of special individual products, such as services, customizations or calculation products, facilitates a more precise description of the quality requirement.

A discontinued product is a product that will be deleted from the assortment in the future. These products are to be labelled as discontinued, and a discontinuation date (anticipated date from which said product will not be available anymore) should be given.

## 2 Up-to-dateness

For all market partners in the industry, the up-to-dateness of data sets is paramount. Reliable statements can only be made if they are based on up-to-date information.

Hence, any changes made to an article stock, in particular regarding new products or price alignments, need to be made available in good time. This applies explicitly also at consistent adaptations of the prices. The provision of e.g. surcharges does not replace the supply of adapted master data **on no account**. The digital product data form the binding basis for any business transaction between the market partners. Therefore, any changes made to an article stock are to be transmitted to the institution that is processing these data no later than six weeks before general market validity (start of validity). Exception: error corrections and promotion prices.

## 3 Article number

The unambiguous allocation of data is just as important as their completeness and up-to-dateness. For this purpose, it is important that the article numbers used in the master data have the same structure as those used in print media (e.g. catalogues or brochures). Hence, the article number should always correspond to the number printed on the products. With newly introduced article number systems, attention should be paid, to the extent possible, to not using spaces, special characters and leading zeros.

With the exception of special article types, every product comes with a GTIN. This number serves for the manufacturer-independent identification of products or packaging units. A GTIN is recommended for each packaging unit.

## **4 Product texts**

In master data processing, different types of text can be distinguished. The following product texts can be provided in this context:

- Short article summary
- Article summary
- Marketing text
- Application note
- Short texts
- Dimension texts
- Long texts
- Specification texts

### **Short texts**

The short text is required for the description and hence also for the identification of a product. This applies not only to one's own system in initial processing, but above all to the further use of the short text in the downstream business process and to the transmission to other systems. For this reason, the focus should be on designing the short text in such a way that it can be integrated in a dealer's ERP system in its original form and without any editing. As a next step, the dealer will adopt the short texts for their customers from the craft sector, who in turn will then use them for their end customers, e.g. for quotations or invoices.

This means that the short text has to provide an unambiguous and legible description of the product. Hence, marketing aspects, for instance, do not belong in a short text. Text duplicates should be avoided, in particular with products and spare parts. Therefore, to ensure unambiguousness, short texts regarding spare parts may contain the article number of the associated product.

For recommendations and regulations regarding the structuring of short texts, please refer to the relevant Annexes. In the event that company guidelines prevent compliance with such regulations, the competent expert committee in which all parties involved are represented shall find a solution to achieve the required data quality.

### **Long texts and dimension texts**

Long texts serve to describe a product or a group of similar products in detail. Dimension texts refer to the specific version and describe e.g. technical details or special product characteristics.

### **Specification texts**

The specification text represents a combination of short text, long text, and dimension text. Specification texts serve for the initiation of business; for instance, specifications/bills of quantities are compiled on this basis. For this reason, the texts should be unambiguous and only include essential product information.

## 5 Attributes

Each product is different and possesses individual characteristics. For the purpose of differentiating a product unambiguously and, if necessary, managing it further, for instance in price lists, online- and ERP systems, catalogues or shop systems, attributes can be provided. Attributes are characteristics and specifications that describe a product in more detail or identify it. They may refer to the ETIM classification system or be assigned by the supplier individually.

## 6 Prices

In order to satisfy the requirement of good master data quality, the plant price as per the latest price list or “price on request” needs to be stated for every article. In addition, the “recommended retail price” (RRP) can be transmitted for the end customer’s information.

The alternative indication of the “price on request” information may be provided together with defined attributes. This applies for instance to customizations or services.

## 7 Groups

For the allocation of products to groups, orientation on the structure of existing media, e.g. printed catalogues, is recommended.

The allocation to and labelling of groups is oriented on the assortment in question and unambiguous as regards content. All products are allocated to a commodity group and to a product group, which are given different designations. Against the backdrop of consistent information transfer in the course of the electronic process chain, the aspects of plausibility and usefulness are of particular importance.

A commodity group provides the initial rough categorization of the product and allocates it to a certain manufacturer-specific group, based on the “use” (e.g. radiator, valve). The commodity group designations should be unambiguous and plausible. The groups should be assigned meaningful names. Unused commodity groups should be deleted.

Accordingly, a product group provides a finer categorization, allocating the product to a manufacturer-specific group, under market-relevant aspects. For instance, brand- or series names may be used here. The product group designations should be unambiguous and plausible, too. Unused product groups should be deleted.

By means of the discount group and the bonus group, the product is allocated to a condition framework. In this area, too, unnecessary groups should be deleted.

## 8 Logistics

Product master data are required for order management and accounting, but also for stock- and materials management and transportation. Business processes can only run smoothly if these data are up to date, correct and complete at all times. This is particularly true for logistics, where e.g. optimal storage location management and delivery route management are based on the gross mass/dimensions of the product in question.

For this reason, a complete data set needs to include logistic data information on products and spare parts. Packaging dimensions and weights are relevant for every product.

A product set has its own article number and consists of several individually orderable products. If, however, a product consists of several components that are not individually orderable, it constitutes a product and not a product group. If any component of the product set is replaced, a new product set with a new article number should be created.

Hazardous goods need to be labelled as such. Hazardous goods in particular require that further information is provided.

A goods number and the country of origin are particularly required in cross-border trade.

## 9 Media

### Image data

All products and spare parts of the assortment should include an image; if necessary, a representative image may be provided. The product-related image should visualize the product in question on the one hand in web quality, and on the other hand in print quality. Images in web quality and format are e.g. used in shop systems. Print quality is required in the making of catalogues, brochures or ads, etc.

When creating new product data, attention has to be paid to providing binding information to the market partners on the delivery date of any missing information. Especially with new articles, images are extremely important for the market partners.

### Documents

Beside images, media data also include supplementary documents. These are very important for the market partners, for instance in the context of installation or maintenance. Therefore, assembly- and maintenance instructions represent valuable additional information in electronic systems. Examples include PDF documents or videos.

## 10 Spare parts

All spare parts in the product portfolio of an industrial company should be labelled as “spare part”. A historical product is a product of a manufacturer that is not available anymore, for which spare parts can still be ordered though. These spare parts are ideally included in a spare parts list. Every short text has to be unambiguous, i.e. it must be possible to identify the product with the aid of said short text.

In order to facilitate a plausible and structured identification of the spare part at a later date, it is necessary to allocate all spare part products to a commodity group and to a product group. A relevant discount group should also be stated. All products representing spare parts for a product or a historical product should be included in a product-related spare parts list. This spare parts list should be given an unambiguous name. Said spare parts list shall include all spare parts for the product with the corresponding factory article numbers and position numbers as used in the relevant exploded-view drawing.

A product or a historical product with spare parts list may be allocated a corresponding exploded-view drawing and a line drawing or a colour image. An orderable product and a historical product may have the same article number in the database, but will be distinguished by the “year of manufacture from” attribute.

In order to support the wholesale and the crafts with the determination of spare parts, the provision of spare part data and exploded views is required. This includes spare part lists as well. The information can be provided by means of data being compliant with DQR, or via standardised electronical services. In DQR 7 the provision is optional. In prospective versions the DQR will be mandatory.

## 11 Particularities

For a variety of products, there are special requirements on their labelling or distribution and hence as well on the provision of the associated product master data. These requirements are also considered in data quality management, by using certain master data processing mechanisms for their electronic presentation. For instance, certain products are subject to legal aspects (e.g. HAZMAT, Construction Products Regulation [CPR]) or directives (e.g. Eco-Design Directive). In such cases, the current framework conditions and legal situations are complied with by making amendments or alterations to the relevant Annexes, if necessary.

## **Annexes**

Annex 1: Definition of Data Contents and Data Quality Principles

Annex 2: Data Quality Requirements of the DG Haustechnik

Annex 3: Data Quality Requirements of the ZVSHK

Annex 4: Code lists of the permitted values