



Stoffenmanager® XML-standard documentation  
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Stoffenmanager®

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## Content

<b>1</b>	<b>The import module.....</b>	<b>3</b>
1.1	Before you start.....	3
1.2	What can Stoffenmanager® import? .....	3
<b>2</b>	<b>The import file.....</b>	<b>6</b>
2.1	XML-file format.....	6
2.2	Attributes of components.....	14
2.3	Elements of components .....	14
2.4	Attributes of limit values.....	15
2.5	Attributes of products.....	15
2.6	Elements of products.....	16
2.7	Elements of locations.....	17
2.8	Elements of workplace instruction card.....	18
2.9	Elements of First-aid-instructions.....	18
2.10	Elements of safety instructions .....	19
2.11	Attributes of text elements of safety and First-Aid instructions.....	19
2.12	Elements of own product fields.....	19
2.13	Attributes of safety and First-Aid instructions.....	19
2.14	Attributes of personal protection equipment (ppe) .....	19
2.15	Attributes of hazard pictograms (hazardClassification) .....	20
2.16	Attributes of component-product link.....	20
2.17	Attributes of safety phrases .....	20
2.18	Elements for ATEX (explosion safety) .....	21
2.19	Elements for PGS (storage of hazardous products/substances).....	22
<b>3</b>	<b>Deprecated attributes and elements .....</b>	<b>23</b>
3.1	Attributes .....	23
3.2	Elements.....	23
<b>4</b>	<b>Frequently asked questions .....</b>	<b>24</b>
<b>5</b>	<b>Annex I: Intrinsic emission table for solid products.....</b>	<b>25</b>
<b>6</b>	<b>Annex II: Extensive example.....</b>	<b>26</b>

# 1 The import module

Since version 5.0 premium users can import product data into Stoffenmanager®. This is done by uploading an XML<sup>1</sup> file fitting the import standards of Stoffenmanager®.

## 1.1 Before you start

Importing large quantities of data is a complex process. Before data is being accepted by Stoffenmanager®, it has to meet a number of strict criteria. Data must be structured correctly and the content must be valid. Keep in mind that creating an XML-file fit for upload and import into Stoffenmanager® can be time consuming.

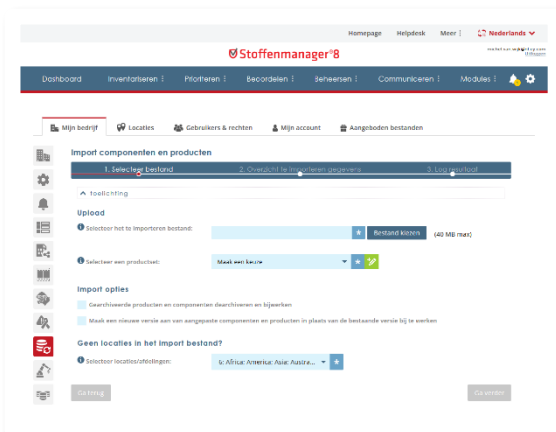


Fig 1. Screenshot import module

## 1.2 What can Stoffenmanager® import?

Stoffenmanager® can import products with its accompanying components. Additionally Stoffenmanager® will import supplier data in case the supplier is not yet registered in Stoffenmanager® (the import will not update existing supplier info).

### 1.2.1 Products and components

Stoffenmanager® uses definitions of characteristics of products and components which may differ from definitions you use or comply to in other (software)tools. A component is a pure substance characterised by s.a. CAS-number and vapour pressure (in Pa); for example Acetone or Acrylamide. A product consists out of one or more components, hazard & precaution statements and workplace instruction information. It resembles the actual substance/product a person works with from an occupational health perspective; for instance a certain Coating.

Be aware that product and component data from other originating databases/systems has to be converted to meet the conventions applicable in Stoffenmanager®. The export file must comply to the strict definitions described in this document. Stoffenmanager® will enforce them during the online import process.

### 1.2.2 Suppliers and locations

In Stoffenmanager® every product is linked to a supplier and a location. This information is stored separately in Stoffenmanager®. You only once have to provide this information for the product. The product is linked to the information in Stoffenmanager®, and in case of updating imports this link information is kept from the previous import.

When you provide a name of a supplier, that already exists, with a product, the product will be linked to the existing supplier in Stoffenmanager®. If it not yet exists a new supplier will be inserted and the product linked to it. The name of the supplier is the identifying data for this match and link process. Because Stoffenmanager® can only match on the exact name it is important that the name is used everywhere in a consistent manner. Be aware that Stoffenmanager® is case sensitive on this matter and specific on points, commas and spaces. 'Chemicals Inc.' and 'Chemicals inc' for instance will be processed as being different names.

<sup>1</sup> For more information on XML see: <http://en.wikipedia.org/wiki/XML>

Just like for suppliers Stoffenmanager® will link on or more existing locations to the product based on the provided location name. If a provided location name does not exist in Stoffenmanager® it is not created however. This is not done because Locations in Stoffenmanager® have a hierarchical structure and when importing Stoffenmanager® cannot make solid assumptions on the location information and the place in that hierarchy. You must provide the correct location names in Stoffenmanager® manually prior to import.

In case the location provided in the import file is not available in Stoffenmanager®, the import process will fall back on the location you selected in step 1 of the import dialogue.

### 1.2.3 How is information imported?

An XML-file is imported as a specific set of data. Every data set can subsequently being accessed (for WiC or Risk assessments) or being over written. In Stoffenmanager® a default data set is present; *the Stoffenmanager® set*. This data set consists all products that are created manually in Stoffenmanager®. You can import set to this product set too, but we advise not to do so. It is safer to create a separate product set under Management-Manage Products Sets in Stoffenmanager® and select this one in the import dialogue. The default product set of Stoffenmanager® is a critical system set. If you select this set in the import dialogue Stoffenmanager® will notify you that you are about to overwrite the base product set of the system. You should decide yourself on what product set structure you want to use to support possible different source systems for import, or to distinguish specific sub-sets coming from your source system.



#### Example

The user exports a selection of products to XML making use of toxicological substance register software of brand X. The XML-file produced by that software module can be imported by the user in a product set named 'Software X products'. When exporting renewed product information a next time from X, the user again importert the file into the set 'Software X producten' or decide to make a new product set in Stoffenmanager® and import the data into the new product set.

When you import into an existing product set containing products from a prior import, these products will be overwritten by the import procedure. The set is being updated with new or changed data. Products that do not exist in the newly imported set but do exist in Stoffenmanager® will remain in the set in Stoffenmanager® and will not be deleted by the import procedure. To be able to match the existing products for update it is necessary that the ID in the XML file is the same as in the previous version of the import.

### 1.2.4 Rights for Reading and Writing

Since Stoffenmanager® version 5.1 it is possible to make product sets 'read only' or 'read & write'. 'Read only' means that the products imported in this product set cannot be changed manually in Stoffenmanager®. You can use this feature if you primarily use another product database to manage the relevant product information and Stoffenmanager® is only used by you for making exposure assessments.

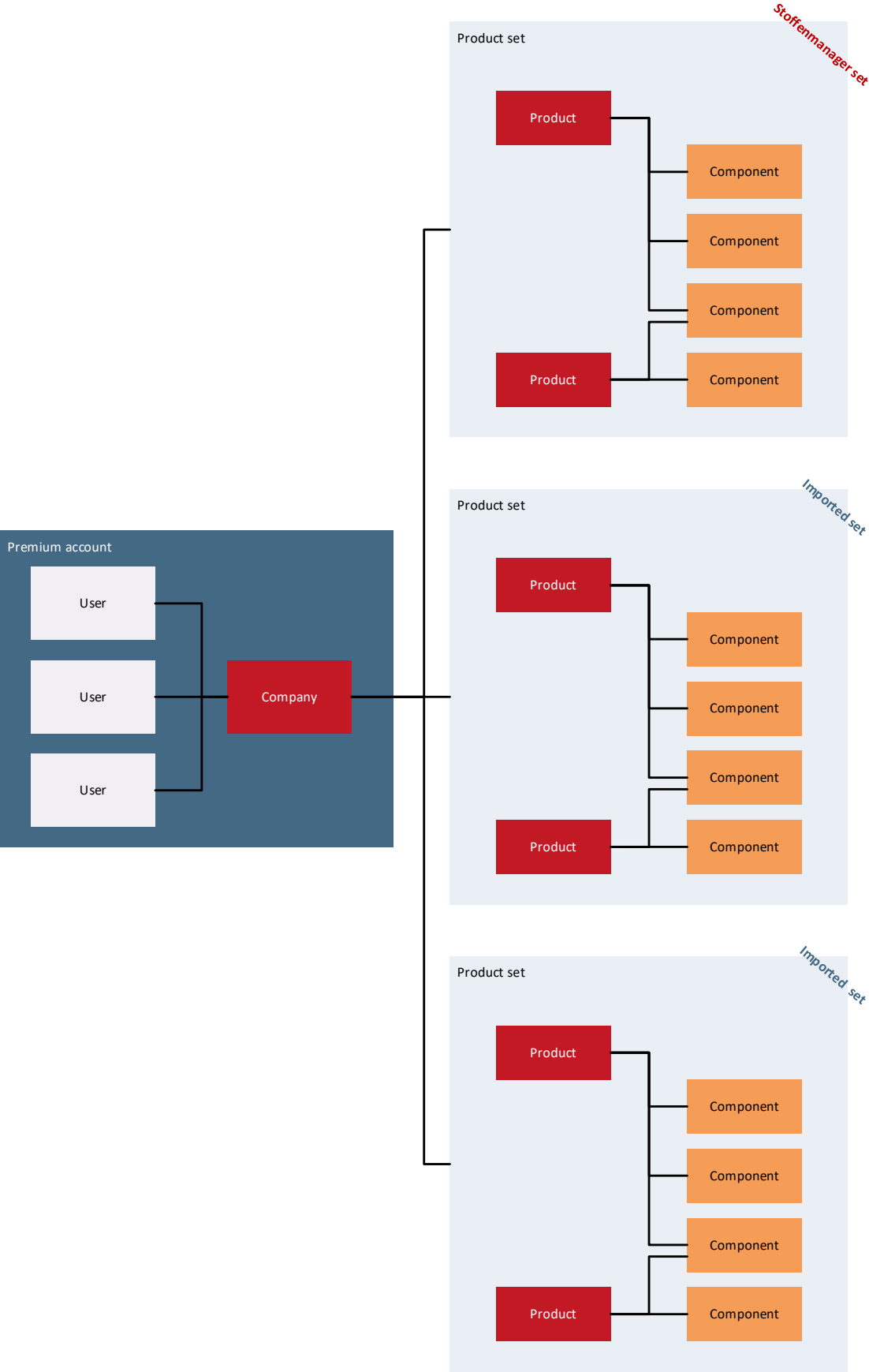


Fig 2. Schematical explanation of product sets

## 2 The import file

### 2.1 XML-file format

#### 2.1.1 Why XML?

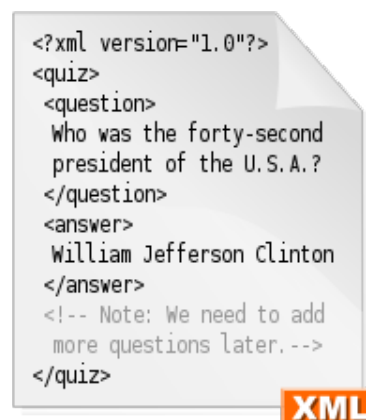
Stoffenmanager® uses the XML-format to import data from external sources. This format is chosen for its common and universal character and the structure of Stoffenmanager® containing several hierarchical structures. A product can for instance contain several components and have several hazard statements. Using XML the relation between a product and its components and hazard statements is easily supported and the hierarchy is visible and clear in the file itself.

An additional benefit of XML is that prior to importing (and exporting), the structure and to some degree the content can be verified using an XSD definition. More information on this topic, validation and XSD, can be found at:

[http://www.w3schools.com/schema/schema\\_howto.asp](http://www.w3schools.com/schema/schema_howto.asp)

To support your export efforts and the possibility to verify your file before importing into Stoffenmanager® an XSD-file is available in Stoffenmanager® at

<https://stoffenmanager.com/Authorized/Import/XsdDownloadProxy.aspx>. Most common XML editors and online tools support the use of XSD to verify the XML-file you have created.



```
<?xml version="1.0"?>
<quiz>
  <question>
    Who was the forty-second
    president of the U.S.A.?
  </question>
  <answer>
    William Jefferson Clinton
  </answer>
  <!-- Note: We need to add
  more questions later. -->
</quiz>
```

XML

Fig 3. An example XML document



Tip: store your XSD-file in the same folder as the import file or link your XSD-file to your XML-exportfile before you start testing the import in Stoffenmanager® for the first time. Most XML-tools offer this link option and activate supporting features for creation of valid import files. Most common mistakes in creating the XML-file will be prevented with help of these features and the option of verifying against the XSD, without doing this validation when importing in Stoffenmanager®.

#### 2.1.1.1 Base concepts in XML

In this document a couple of base concepts in XML are used in the examples and explanation of the required XML format or Stoffenmanager®. These concepts are explained in this paragraph. Below the structure of an XML file is shown with an explanation per concept.

```
<?xml version="1.0" encoding="utf-8"?>
<importproducts
  xmlns:xml="http://www.w3.org/XML/1998/namespace"
  <!-- Notice: Example is extract from Acetone, see:
  http://www.sciencelab.com/msds.php?msdsId=9927062 -->
  <components>
    <component id="AL3150000"
      casnumber="67-64-1"
      molecularweight="296"
      physicalform="liquid"
      margintype="margintype" vapourpressurepascal="2400"
      marginalvaluemgm3="59.41" >
      <name><![CDATA[AL3150000]]></name>
    </component>
  </components>
</products>
<product id="SLA3502" physicalform="liquid" vapourpressurepascal="2400">
  <name>Acetone</name>
  <locations>
```

XML declaration

XML namespace declaration

Comment (free text)

Attribute

CDATA delimiter

Element opening

```

    <location>Department A</location>
  </locations>
  <wic>
    <hazardClassifications>
      <hazardClassification type="wms" id="explosive"/>
    </hazardClassifications>

    <signalTerm type="danger" />

    <generalVentilation recommended="false" />
    <sourceVentilation recommended="true" />

    <ppes>
      <ppe typeId="Eye-resp--face-protection" id="Safety-goggles"/>
      <ppe typeId="Respiratory-protection" id="Gasfilter-BE"/>
    </ppes>

    <firstAidPhrases>
      <firstAidPhrase id="First-Aid-Eye-contact">
        <text xml:lang="en">
          Check for and remove any contact lenses. Immediately flush eyes with running
water for at least 15 minutes, keeping eyelids
          open. Cold water may be used. Get medical attention.</text>
        <text xml:lang="nl">
          Controleer en verwijder contactlenzen. Spoel de ogen onmiddellijk met
stromend water gedurende tenminste 15 minuten en houd de oogleden
          open. Koud water kan worden gebruikt. Raadpleeg een arts.
        </text>
      </firstAidPhrase>
    </firstAidPhrases>
  </wic>
</product>
</products>
</importproducts>

```

Element closing

XML language attribute

### XML declaration

The first line is always in an XML-file declaring its format. The declaration specifies, among other things, which text format is used in the file. The declaration in this example is the most common used.

### XML namespace declaration

The XML namespace declaration is a special attribute, enabling the possibility to use attributes and elements origination from an external namespace. Detailed information on elements and attributes will be explained below too.

### Comment

Comment is free text which will be ignored by the Stoffenmanager® import. Comments are always placed between '<!--' and '-->'.

### Attribute

An attribute is a value on an element. An attribute consists of a name and a value, separated by an equal sign '='. The value of an attribute always is placed between double quotes.

The name of an attribute can optionally contain a pointer to the namespace where it belongs to. An example of such type of attribute is `xml:lang="en"`. This attribute with the name 'lang' originates from the 'xml' name space.

### Leaving out attributes

The value of an attribute is a text between double quotes. In case this documentation mentions that an attribute is not mandatory, you can omit the whole attribute, both name and value. You can only give the value

an empty content if that can be applicable for the attribute (the XSD should give insight on that possibility). Also take a look at chapter 2.1.6 on the extension of product fields in Stoffenmanager®.

#### *XML language attribute*

For certain elements in the import file it is possible to use an XML language attribute.

#### **Element**

An element consists of information between a start tag and end tag. A start tag is a name between arrowheads, for instance: `<products>`. An end tag is the same name between arrowheads with a forward slash in front of the name; matching example `</products>`.

An element can contain attributes after the name in the start tag, for instance: `<generalVentilation recommended="false" />`. This is an element with the name 'generalVentilation' with an attribute named 'recommended'. In this example the element is closed directly and does not contain a value for the element ( / in the start tag)

An element can itself contain elements too, and those elements again too (nested elements).

Some elements can contain text content. XML has a restriction on certain signs in text. For that reason it is recommended to enclose the text content in a 'CDATA' delimiter.

#### **CDATA delimiter**

A CDATA delimiter enables the use of special signs in an XML file. For instance:

`<name><![CDATA[AL3150000]]></name>`. This is an element with the name 'name' containing the text 'AL315000'.

#### *2.1.1.2 Two-step check during import*

Stoffenmanager® checks the data in the XML-file two times during the import process. The first check matches the content of the file against the earlier mentioned XSD-file. The XSD contains the controls primarily focussed on the structure of the XML-file. Since Stoffenmanager® 5.1 also some content related controls are implemented by use if the XSD check, for instance the correct hazard and safety statements.

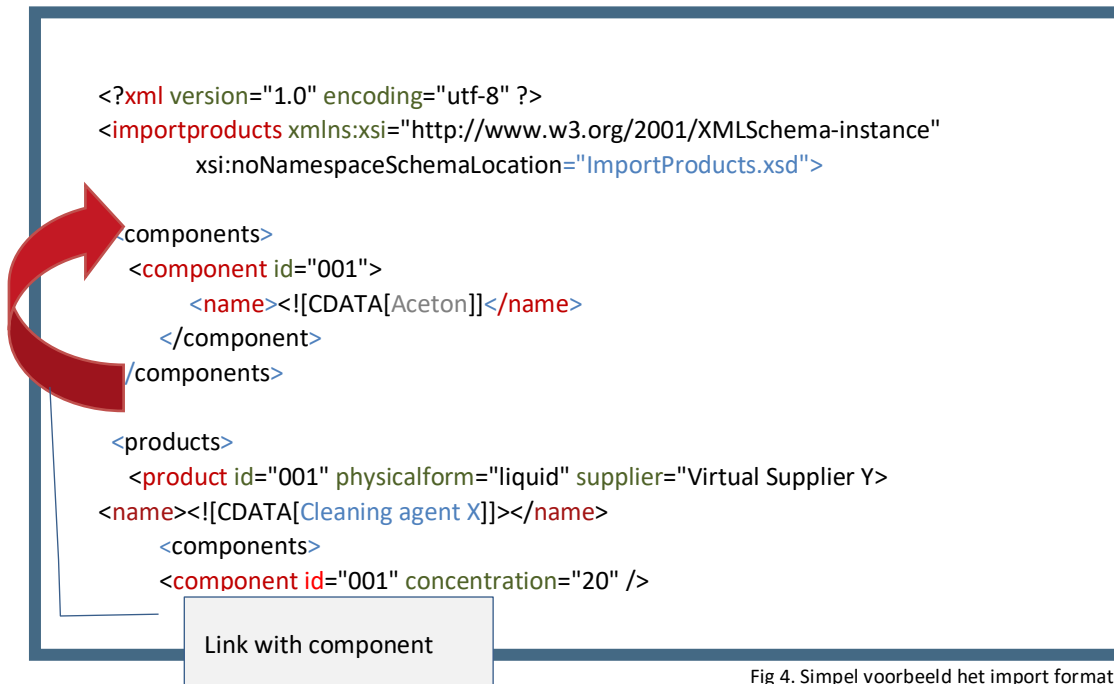
After the XSD-check a second check is performed to validate your data presented in the uploaded import file against the database structure and content of Stoffenmanager®. These checks are primarily linked to your personal data set in Stoffenmanager® and cannot be verified by the XSD check for that reason. Imported data that jeopardize the integrity of your data in Stoffenmanager® is refused by the system in blocked for import.

When you define and create an import file for the first time, be aware if this two-step check process. The number off errors you are confronted with can build up again when you have passed the first check process and enter the second one.



### 2.1.2 The structure of the XML-file briefly explained

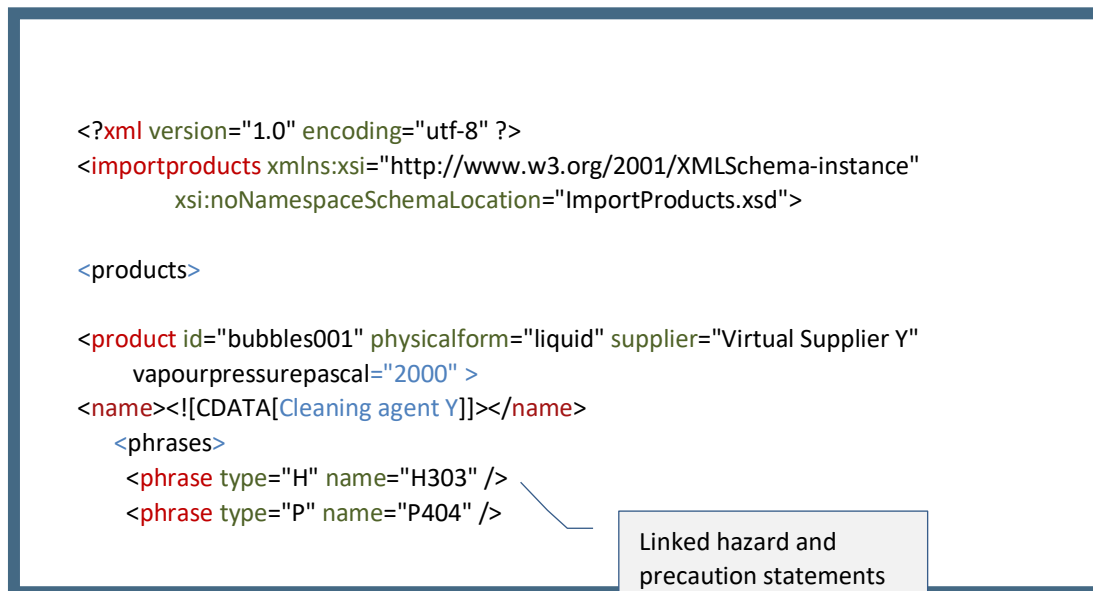
The base structure of the XML-file is like stated below:



```
<?xml version="1.0" encoding="utf-8" ?>
<importproducts xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="ImportProducts.xsd">
  <components>
    <component id="001">
      <name><![CDATA[Aceton]]</name>
    </component>
  </components>
  <products>
    <product id="001" physicalform="liquid" supplier="Virtual Supplier Y">
      <name><![CDATA[Cleaning agent X]]</name>
      <components>
        <component id="001" concentration="20" />
      </components>
    </product>
  </products>
</importproducts>
```

Link with component

Fig 4. Simpel voorbeeld het import format.



```
<?xml version="1.0" encoding="utf-8" ?>
<importproducts xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="ImportProducts.xsd">
  <products>
    <product id="bubbles001" physicalform="liquid" supplier="Virtual Supplier Y"
      vapourpressurepascal="2000" >
      <name><![CDATA[Cleaning agent Y]]</name>
      <phrases>
        <phrase type="H" name="H303" />
        <phrase type="P" name="P404" />
      </phrases>
    </product>
  </products>
</importproducts>
```

Linked hazard and precaution statements

Fig 5. Simple example of the import format with H and P statements.

The heading node `<importproducts>` contains two mandatory elements `<products>` and `<components>`. `<components>` are used to import the *independent* components. `<products>` are used to import the products with their referencing components as product composition and the hazard and precaution statements.

Components can be linked to products with a reference in de product declaration. Be aware that the component being referenced must exist in the independent listing of components in the XML-file in case it is not yet known in the dataset of your company in Stoffenmanager®. In the product composition must be stated what the concentration is of the component in the product. The value must fall between 0 and 100 (max 100 is allowed).

An elaborate example of a valid XML-file you can find in Annex II.

### 2.1.3 Adding Hazard statements to a product

For every product H & P or R & S statements can be specified and added the import file. A product can have several linked hazard statements. Every statement must be specified in a separate `<phrases>` node within the product. The statements must be known in Stoffenmanager® and are being matched by name. Not existing or incorrect stated statements are not imported.

Stoffenmanager® uses fixed sets for H, P, R & S statements. These sets are universal throughout Stoffenmanager® and every statement you mention in your import file must be known in the Stoffenmanager® sets. You will not be able to import different hazard statement or combined ones not available in Stoffenmanager®. You must use the exact notation as in Stoffenmanager®, so no spaces and the notation is case sensitive; for instance H350i and H360Df must be applied exactly similar in the name attribute of the phrase node (`<phrase type="H" name="H350i" />`). You can use the links below to check all available statements and the notation used in Stoffenmanager®.



Hint: When you find an H-statement in your MSDS (software) that Stoffenmanager® does not support, please contact your supplier. Stoffenmanager® tries to follow the official statements stated in the directives. It can be the case that the provided info in the MSDS (software) contains flaws. In case the particular H-statement indeed officially exists and Stoffenmanager® rejects it during import, please contact Stoffenmanager® helpdesk with the

All available H-statements:

<https://stoffenmanager.com/Authorized/CompanyData/PhrasesExplained.aspx?Phrase=H>

All available P-statements:

<https://stoffenmanager.com/Authorized/CompanyData/PhrasesExplained.aspx?Phrase=P>

All available R- statements:

<https://stoffenmanager.com/Authorized/CompanyData/PhrasesExplained.aspx?Phrase=R>

All available S- statements:

<https://stoffenmanager.com/Authorized/CompanyData/PhrasesExplained.aspx?Phrase=S>

### 2.1.4 Adding WIC-information to a product

Since version 5.1 it is possible to import WIC (workplace instruction card) data for a product. You can specify which hazard categories are applicable for a product, which ventilation measures should be applied, which personal protection equipment (PPE) is prescribed and the applicable first-aid and safety and prevention instructions. All WIK-item are optional.

For hazard categories, personal protection equipment, first-aid - , safety - and prevention instructions you have to add specific import identification codes. These codes are specific so Stoffenmanager® can match your content based on them.

A complete list of available identification codes you can find on URL:

<https://stoffenmanager.com/Authorized/Import/IdentifierDocumentation.aspx>

Per 'type object' you can find the name used by Stoffenmanager® and the import identification code you must use in the import file.

By using the correct code you can for instance add a hazard symbol to your product. It is not possible to add your own icons or PPE's to Stoffenmanager® using the import functionality.

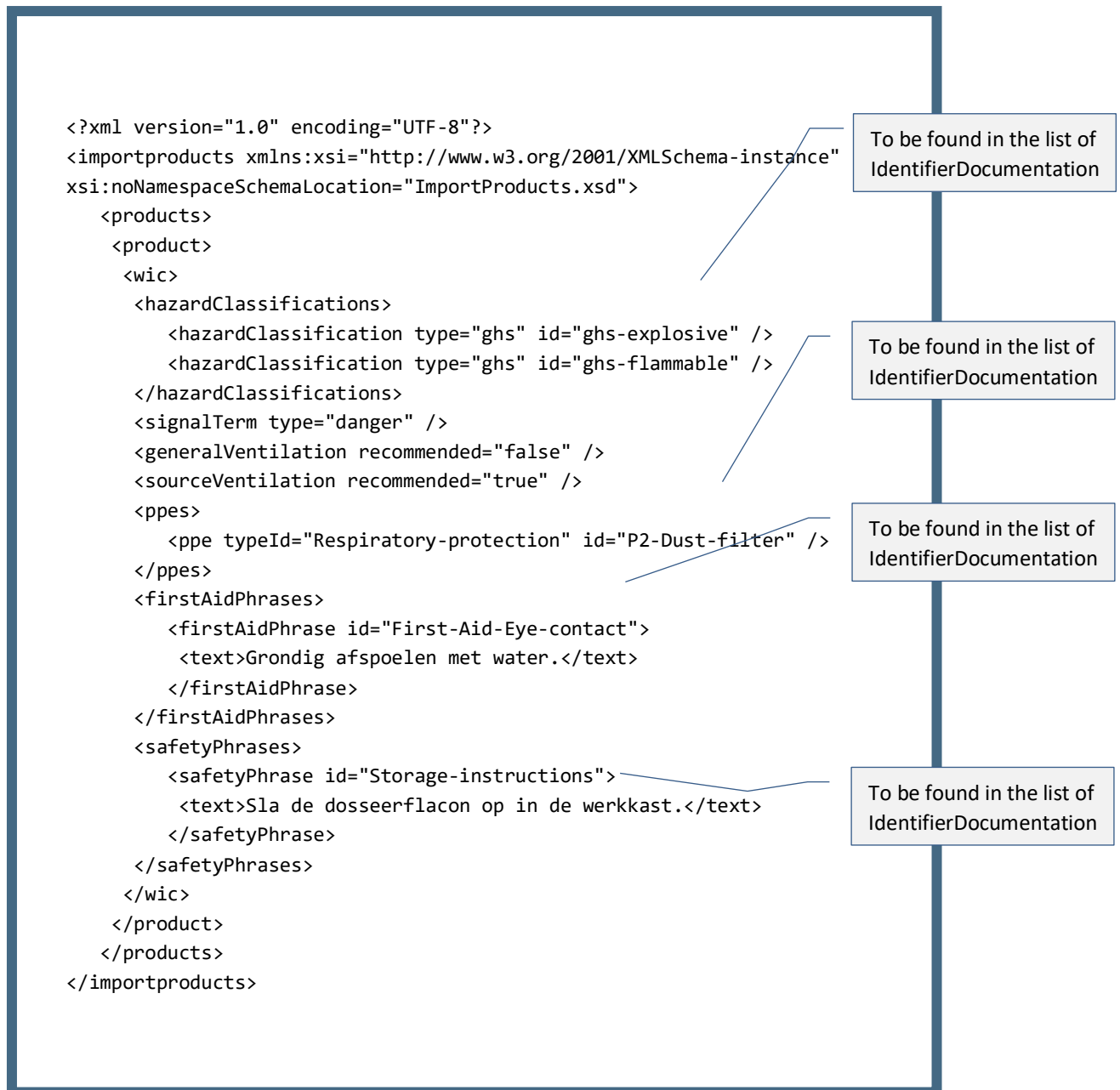


Fig 6. Example of WIC info linked to a product.

#### 2.1.4.1 Adding WIC information language specific

It is possible to add WIC-information for different languages available in Stoffenmanager®. Adjust your XML file by changing the head element, *importproducts*, so that the attribute contains the following information:

```
xmlns:xml="http://www.w3.org/XML/1998/namespace"
```

Now you can specify a language with the "xml:lang" for WIC-sentences, *firstAidPhrase* and *safetyPhrase*. Place the attribute on the 'text' element. You can only use the languages that are used in Stoffenmanager®. In case you don't use the "xml:lang" attribute, all text content for the WIC that is imported is processed as being

Dutch content. This is done to support previous versions of the import specifications when xml:lang was not yet supported by the import process.

The xml:lang attribut<sup>2</sup> accepts a two character language code – known as the ISO 639-1 code. In case you use a different language code, not a two character one, the import file will not be accepted during the validation. Check [ISO 639 specification](#) for the list of available language codes.

An example of localised WIK-sentences:

```
<firstAidPhrases>
  <firstAidPhrase id="First-Aid-Eye-contact">
    <text xml:lang="en">Clean-up using water.</text>
    <text xml:lang="nl">Maak schoon met water.</text>
  </firstAidPhrase>
</firstAidPhrases>
<safetyPhrases>
  <safetyPhrase id="Storage-instructions">
    <text xml:lang="en">Store the dosing bottle in a broom cupboard.</text>
    <text xml:lang="nl">Sla de dosseerflacon op in de werkkast.</text>
  </safetyPhrase>
</safetyPhrases>
```

#### 2.1.5 Localisation factors

The import processes figures according to English notation. So the point is decimal separator. No other localization factors are relevant in the import.

#### 2.1.6 Complementing or ignoring fields in Stoffenmanager®

During the import standard all fields of products or components are being overwritten. Also the fields that are not supplied with the import XML file. The intention is to make the source data leading; in the source the product data is managed and from there transferred to Stoffenmanager®.

It is possible to instruct Stoffenmanager® so that during import some specific fields only will be imported in case they are supplied with the XML. It is also possible to instruct the import to ignore certain fields during import. To do so add the following code in the head of the file, behind the <importProducts ...> tag:

```
<header>
  <dataSettings>
    <component>
      <attribute name="vapourpressurepascal" not-defined-behaviour="keepExisting" />
    </component>
    <product>
      <element name="components" not-defined-behaviour="keepExisting" />
      <element name="supplier" behaviour="ignore" />
    </product>
  </dataSettings>
</header>
```

---

<sup>2</sup> Officiële specificatie van 'xml:lang': <https://www.w3.org/International/articles/language-tags/>

The example above specifies the import module in Stoffenmanager® the following:

- Preserve for the “component” the vapour pressure as stated in Stoffenmanager®, unless in the XML-file a vapourpressurepascal attribute is being offered.
- Preserve for the “product” the composition in components as stated in Stoffenmanager®, unless in the XML-file a components element is provided.
- Ignore the supplier element during import.

In the current version this feature is only available for a specific set of fields:

- Components
  - Attributes:
    - molecularweight
    - vapourpressurepascal
    - vapourpressuretemperature
    - vapourpressuresource
    - boilingpoint
    - casnumber
    - ec-number
    - reach-registration-number
- Products
  - Attributes:
    - vapourpressurepascal
    - vapourpressuretemperature
    - intrinsicemission
  - Elements:
    - vibdate
    - components
    - phrases
    - supplier

The following fields can always be complemented in Stoffenmanager® by means of an import:

- Product
  - Atex: In case the complete ATEX element is not inserted in the import file.
  - PGS: In case the complete PGS element is not inserted in the import file.
  - WIC: In case the complete WIC element is not inserted in the import file.
  - Own product fields: In case not inserted in the import file the field will not be cleared of altered.



In case you want to complement fields in Stoffenmanager® by adding the above stated information in your import file, please import your information in a read/wright product set. In case you don't want to complement fields in Stoffenmanager®, define your product set as read only to prevent your users of changing the product details and perhaps losing crucial data managed in your source system.

## 2.2 Attributes of components

Example: <component id="204"/>.

Attribute	Description	Mandatory?
<b>id</b>	Unique identification code for the component. Shown as YourComponentID (YCID) in the application.	Yes
<b>casnumber</b>	The "Chemical Abstracts Service" number under which the component is registered. It must be formatted correctly, for instance 1234567-89-5. <sup>3</sup> The number must be unique. In case you don't want or can't specify the number, don't provide the attribute or use "00000-00-0".	No
<b>marginalvaluemgm3</b>	The margin value in milligrams per cubic meter.	No
<b>marginaltype</b>	The margin value type, for instance TWA-8 h, TWA-15 min, DNEL or TLV.	No
<b>molecularweight</b>	The molecular weight of the component.	No
<b>physicalform</b>	The physical form, this can be solid or liquid. In case this attribute is not specified or put on 'both', the component can be used in a product in both the physical forms.	No
<b>vapourpressurepascal</b>	The vapour pressure in Pascal. This value is not mandatory, but for calculation of exposure to liquids Stoffenmanager® needs it. In case of a solid product, the intrinsic emission on product level is used for calculations, not values on component level.	No
<b>vapourpressuretemperature</b>	The temperature in Celsius the vapour pressure was measured with. * If there is no temperature given, 20 degrees will be used as a default value.	No*
<b>boilingpoint</b>	Boiling point in °C. Cannot contain ranges, only numbers with or without decimals.	No
<b>ec-number</b>	European community number of the substance. Must conform to the format xxx-xxx-x	No
<b>reach-registration-number</b>	REACH registration number of the substance. Must conform to the format xx-xxxxxxxx-xx-xxxx	No
<b>vapourpressuresource</b>	In this field you can specify the source of the vapour pressure. This can be any string of a maximum length of 512 characters.	No

## 2.3 Elements of components

Example: <component><name>Example</name></component>.

Element	Description	Mandatory?
<b>name</b>	Name of the component.	Yes
<b>limitValue</b>	Contains information regarding a limit value of the component. Refer to "attributes of limit values". This element may occur multiple times to supply multiple limit values.	No

<sup>3</sup> Voor meer informatie over CAS nummers zie: [http://en.wikipedia.org/wiki/CAS\\_registry\\_number](http://en.wikipedia.org/wiki/CAS_registry_number)

## 2.4 Attributes of limit values

Example: `<limitValue type="TGG-8h" value="200" source="DNEL ECHA" country="eu" id="limit-001" />`.

Attribute	Description	Mandatory?
<b>id</b>	<p>Unique identification code for the limit value.</p> <p>If this attribute has been supplied the import module is able to add, update and delete limit values while still allowing an user in Stoffenmanager® to manage his own limit values on top of the imported limit values.</p> <p>If this attribute has not been supplied, the order of the limit values in the XML file will be used. We recommend to supply this attribute in the import file so you have more control over deletions of limit values.</p>	No
<b>type</b>	The type of limit value. Only certain fixed values are allowed in this attribute, which you can find in the online table <sup>4</sup> under XML element "limitValue", XML attribute "type".	Yes
<b>value</b>	The limit value as mg/m <sup>3</sup> .	Yes
<b>source</b>	The source for the limit value. This is free text field.	No
<b>country</b>	The area of legislation the limit value is applicable for, like the European Union or your own company. Only certain fixed values are allowed in this attribute, which you can find in the online table <sup>4</sup> under XML element "limitValue", XML attribute "country".	No
<b>isDefault</b>	Whether or not the limit value is marked as default. Default limit values are used for new and upgraded risk assessments. Note that you can only mark one limit value within a component as default.	No

### 2.4.1 How does the import handle the older `marginalvaluemgm3/marginaltype` attributes?

Previously the import file only allowed one limit value to be supplied using the `marginalvaluemgm3/marginaltype` attributes. These attributes are now obsolete and shouldn't be used anymore.

To support older import files the import module will try to interpret what the actual fixed limit value type is. The raw value of the "marginaltype" attribute will be imported as the "source" of the limit value.

It is not allowed to mix the use of the obsolete attributes with the new syntax for limit values.

## 2.5 Attributes of products

Example: `<product id="204"/>`.

Attribute	Description	Mandatory?
<b>id</b>	Unique identification code for the product (possibly originating from your source system). Shown as YourProductID (YPID) in the application.	Yes

<sup>4</sup> <https://stoffenmanager.com/Authorized/Import/IdentifierDocumentation.aspx>

<b>physicalform</b>	The physical form/aggregation state of the product: this can be either solid, liquid or gas. The values are available in the XSD as the enums solid, liquid or gas.	Yes
	Notice: You won't be able to create risk assessments with gaseous products.	
<b>intrinsicemission</b>	The emission factor for solids. In case of liquids or gaseous products the emission factor is determined based on the vapour pressure. For solids Stoffenmanager® uses a fixed set of possible emissions (see annex I). The emission of solid product being imported should match one of the entries in this table.  When this attribute is not specified for solids you will not be able to make an exposure assessment for tasks using this product. When editing the imported product without emission, you are forced to enter it manually in the system.  This attribute cannot be specified for liquids or gaseous products.	No
<b>vapourpressurepascal</b>	The vapour pressure for liquid or gaseous products in Pascal.  In case of a liquid and this attribute not specified you will not be able to make a risk assessment using the product. When you edit the product manually in Stoffenmanager® you will be forced to enter a vapour pressure before you can save the product.  This attribute cannot be specified for solid products.	No
<b>vapourpressuretemperature</b>	The temperature in Celsius the vapour pressure was measured with. * If there is no temperature given, 20 degrees will be used as a default value.	No*
<b>boilingpoint</b>	Boiling point in °C. Cannot contain ranges, only numbers with or without decimals.	No
<b>isCentralAvailable</b>	In case this attribute is added and set 'true' the product will be stored in de digital product depot.	No
<b>uniqueformulaidentifier</b>	The Unique Formula Identifier (UFI) of the product.	No

## 2.6 Elements of products

Example: <product><name>Example</name></product> .

Element	Description	Mandatory?
<b>name</b>	Name of the product	Yes
<b>supplier</b>	Name of the supplier. In case this name matches a name in your existing supplier set in Stoffenmanager® the product will be linked to the existing supplier. If not a new supplier will be created in your set and the product will be linked to it. In case the supplier is not available in the import file you will be forced to choose one when editing the product manually in Stoffenmanager®.	No



<b>locations</b>	In Stoffenmanager® locations where a product is kept/used can be created. This field references to your locations in Stoffenmanager®. By applying the exact same name for the location in the import file as is used in Stoffenmanager®, the product will be linked to this location.	No
<b>wic</b>	Grouping element for all information related to the workplace instruction card for the product.	No
<b>vibdate</b>	The VIB-date is the date stated on the MSDS of the product. It should match the format 'YYYY-MM-DD'. 'YYYY' will be interpreted as year, 'MM' as month and 'DD' for day. October 18 <sup>th</sup> 2013 will be '2013-10-18' for instance.	No
<b>customFields</b>	Grouping element for custom product fields that you can configure in Stoffenmanager® prior to your import. See paragraph 2.14 for details.	No
<b>sds</b>	Container element for SDS files for various languages	No

## 2.7 Elements of sds

Example: `<sds><file xml:lang="nl" format="base64" compression="gzip"><![CDATA[JVBERi0xLgoxIDAgb2JqPDwvS2lkc1s8PC9QYXJlbnQgMSAwIFIVUmVzb3VyY2VzPDw+Pi9Db250ZW50cyAyIDAgUj4+XT4+ZW5kb2JqIDIgMCMCBvYmo8PD4+c3RyZWFTckJULyA5IFRmKEh1bGxvIFdvcmxkKScgRVQKZW5kc3RyZWFTcmVuZG9iaib0cmFpbGVyPDwvUm9vdDw8L1BhZ2VzID EgMCMCSPj4+Pg==]]></file></sds>`

Element	Description	Mandatory?
<b>file</b>	One of multiple of these elements define the SDS files, one per language defined via the <code>xml:lang</code> attribute.  The contents of the file tag is a payload, transformed via a binary-to-text algorithm.	No

## 2.8 Attributes of file elements of SDS

Example: `<file xml:lang="en" format="base64" compression="none" xsi:nil="true"/>`.

Attribute	Description	Mandatory?
<b>xml:lang</b>	Specifies the language of the text applied inside the element. For more information, see paragraph 2.1.4.1.	Yes
<b>xsi:nil</b>	Specifies there is no SDS file for the specified language. If there is already an SDS attached in Stoffenmanager, it will be removed.	No
<b>format</b>	The binary-to-text encoding algorithm used for the SDS file. Supported options: base64, base85 (ascii85 variant)	Yes
<b>compression</b>	Compression applied to the binary payload of the file tag. Supported options: none (No compression) and gzip (Gzip compression, not to be confused with zip)	Yes

## 2.9 Elements of locations

Example: `<locations><location>Rotterdam (NL)</location><location>Antwerpen (BE)</location></locations>`.

Element	Description	Mandatory?
<b>location</b>	Name of the location to which the product will be linked during import. The element can be provided multiple times per product.	No

## 2.10 Elements of workplace instruction card

Example: `<wic><signalTerm>Example</signalTerm></wic>`.

Element	Description	Mandatory?
<b>hazardClassifications</b>	Grouping element in which nested elements of type 'hazardClassification' are placed. These describe the hazard pictograms for the product.	No
<b>signalTerm</b>	States the hazard signal term. The attribute 'type' can be: 'danger', 'warning', or 'none'.	No
<b>ppes</b>	Grouping element in which nested elements of type 'ppe' are placed. These describe the personal protection equipment prescribed for the product and displayed on the workplace instruction card.	No
<b>firstAidPhrases</b>	Grouping element for first-aid-instructions. Contains nested elements of type 'firstAidPhrase'. Every first-aid-instruction can only be stated single time per product.	No
<b>safetyPhrases</b>	Grouping element for safety instructions. Contains elements of type 'safetyPhrase'. Every safety instruction can only be stated single time per product.	No
<b>generalVentilation</b>	(Room) ventilation recommended or not. Make use of the attribute recommended="true" or "recommended="false".	No
<b>sourceVentilation</b>	Exhaust ventilation recommended or not. Make use of the attribute recommended="true" or "recommended="false".	No

## 2.11 Elements of First-aid-instructions

Example: `<firstAidPhrases><text> Example</text></firstAidPhrases>`.

Element	Description	Mandatory?
<b>text</b>	Instruction text for the first-aid-instructions.	Yes

## 2.12 Elements of safety instructions

Example: <safetyPhrases><text> Example</text></safetyPhrases>.

Element	Description	Mandatory?
<b>Text</b>	Contains de instruction text for the safety instructions.	Yes

## 2.13 Attributes of text elements of safety and First-Aid instructions

Example: <text xml:lang="en"/>.

Attribute	Description	Mandatory?
<b>xml:lang</b>	Specifies the language of the text applied inside the element. For more information, see paragraph 2.1.4.1.	No

## 2.14 Elements of own product fields

This chapter describes how custom product fields can be added in the import (inside the 'customFields' element).

Example: <field name="CRM-number"></field>.

Element	Description	Mandatory?
<b>Field</b>	Contains the instruction text for the custom field.  Give the attribute "name" as value the name of the custom field the way you have configured it in Stoffenmanager®. Beware: use exact the same label of the custom field as configured in Stoffenmanager®; it is case sensitive!  Beware 2: When you change the name of the custom field in Stoffenmanager® you will have to change your import file and probably the export procedure in your source system.	Yes

## 2.15 Attributes of safety and First-Aid instructions

Example: <firstAidPhrase id="First-Aid-Eye-contact"/>.

Attribute	Description	Mandatory?
<b>Id</b>	Unique identification of first-aid-instruction or safety instruction. How to find these is described in chapter 2.1.4.	Yes

## 2.16 Attributes of personal protection equipment (ppe)

Example: <ppe id= "P2-Dust-filter" typeId="Respiratory-protection" />.

Attribute	Description	Mandatory?
<b>typeld</b>	Unique identification of the type of personal protection equipment. How to find these is described in chapter 2.1.4. For example the type 'Respiratory protection' has typeld respiratory-protection.	Yes
<b>Id</b>	Unique identification of the personal protection equipment. How to find these is described in chapter 2.1.4. For instance a	Yes

P2-Dust-filter. Be aware: you can specify only one equipment per type.

---

### 2.17 Attributes of hazard pictograms (hazardClassification)

Example: <hazardclassification id="ghs-explosive" type="GHS" />.

Attribute	Description	Mandatory?
<b>Type</b>	Type hazard symbol (GHS or WMS)	Yes
<b>Id</b>	Unique identification of the hazard symbol. How to find these is described in chapter 2.1.4.	Yes

---

### 2.18 Attributes of component-product link

Example: <component id="204"/>.

Attribute	Description	Mandatory?
<b>Id</b>	Unique identification code for the component matching the id stated in the component element itself in the XML file.	Yes
<b>Concentration</b>	The concentration of the component in the composition of the product. Number 0 to 100 with a maximum precision of thirteen decimals.	Yes

---

### 2.19 Attributes of safety phrases

Example: <safetyPhrases id="Storage-instructions"/>.

Attribute	Description	Mandatory?
<b>Id</b>	The id of the safety phrase.	Yes
<b>Text</b>	The text you want to apply to the specific instruction. You can use the xml:lang attribute to allocate the text to the aimed language in Stoffenmanager®.	Yes

---

## 2.20 Elements for ATEX (explosion safety)

Example: <atex><flashingPoint>36</flashingPoint></atex>. De K-class cannot be applied in the import file, but will be determined during import based on the flashpoint and the boiling point, when both applied. If the K-class cannot be determined during import this will be notified in the process. The product will not be fit for use in the ATEX-module.

Element	Description	Product Type	Mandatory?
<b>flashPoint</b>	Flashpoint in °C. Cannot contain ranges, only numbers with or without decimals. In case not provided the product will not be ATEX-ready.	Liquid	Yes, for liquid
<b>boilingPoint *</b>	Boiling point in °C. Cannot contain ranges, only numbers with or without decimals.	Liquid	No
<b>leIV</b>	Lower explosion limit (LEL) in volume %. Can contain ranges and will be stored as text in Stoffenmanager®.	Liquid, Solid	No
<b>uelV</b>	Upper explosion limit (UEL) in volume %. Can contain ranges and will be stored as text in Stoffenmanager®.	Liquid	No
<b>Mot</b>	Minimal ignition temperature / Lower explosion limit (LEL) in °C (temperature).	Liquid, Solid	
<b>Moe</b>	Minimal ignition energy in mJ (milli joule). Can contain ranges and will be stored as text in Stoffenmanager®.	Liquid, Solid	No
<b>specificConductivity</b>	Specific conductivity in pS/m in case of liquids, in Ohm.m in case of solids. Can contain ranges and will be stored as text in Stoffenmanager®.	Liquid, Solid	No
<b>selfignitionPoint</b>	Self-ignition point in °C. Can contain ranges and will be stored as text in Stoffenmanager®.	Liquid	No
<b>dustClassification</b>	Dust class: 1, 2 or 3 (based on Kst-value: 1: 0-200 bar.m/s, 2:200-300 bar.m/s , 3: >200 bar.m/s). In case not applied the product will not be ATEX-ready.	Solid	Yes, for solids
<b>kstValue</b>	Kst-value in bar.m/s on which dust(explosion)-class is being determined.	Solid	No
<b>layerIgnitionTemperature</b>	Glim temperature in °C	Liquid, Solid	No

\* This attribute/element is deprecated. See [Deprecated attributes and elements](#) for more information.

## 2.21 Elements for PGS (storage of hazardous products/substances)

Example: <pgs><adrClass>200</adrClass></pgs>.

Element	Description	Mandatory?
<b>adrClass</b>	ADR-class; options: 1, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 2, 2.1, 2.2, 2.3, 2.4, 2.5, 3, 3.1, 3.2, 3.3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, 7, 7.1, 7.1.1, 7.1.2, 7.1.3, 7.1.4, 8, 8.1, 8.2, 8.3, 9, 9.1. In case not applied the product will not be PGS-ready.	Yes
<b>flashPoint</b>	Flashpoint in °C. Cannot contain ranges, only numbers with or without decimals. In case not provided the product will not be PGS-ready.	Yes
<b>unNumber</b>	UN-number; this is free text not being validated.	No
<b>classificationCode</b>	Classification code; is a letter combination in capitals with options A (suffocating), C (corrosive), D (explosive substance not in a explosive state), F (flammable), I (infectious, contagious), O (oxidizing), P (organic peroxide), S (capable of self-ignition), SR (self-decomposing), T (toxic), W (produces flammable gas in contact with water), M (various danger, different than previous), <b>followed</b> by a number.	No
<b>transportationName</b>	Transportation name and/or technical name; text.	No
<b>modelNumberHazardLabels</b>	Model numbers hazard labels; free text.	No
<b>packingGroup</b>	Packing group; text with options: I , II, III.	No

## 3 Deprecated attributes and elements

Due to changes within Stoffenmanager®, it is possible that certain attributes and elements are deprecated and have to be imported in a different way. These attributes and elements are described in this chapter.

### 3.1 Attributes

There are no deprecated attributes at this time.

### 3.2 Elements

#### 3.2.1 ATEX (explosion safety)

Element	Description
<b>boilingpoint</b>	The boiling point was previously part of the ATEX module (see <a href="#">Elements for ATEX (explosion safety)</a> ). The boiling point has since become part of the general product information. Importing the boiling point is now possible with the <b>boilingpoint</b> attribute for products (see <a href="#">Attributes of products</a> ).

## 4 Frequently asked questions

1

**What are the consequences for existing risk assessments when product data are overwritten by executing an import?**

The effect of importing and thereby updating product is not different from updating products manually in Stoffenmanager®. The risk assessment has to be opened, recalculated and stored again.

2

**What happens with a product with a CMR-classification that is overwritten by the import with characteristics making it lose the CMR-classification?**

This is the responsibility of the user and the .. user of the origination product database. Stoffenmanager® does not allow to drop products having an CMR-classification, but does not block a user – from a practical point of view – to change the product in a way it losses the CMR-classification. This is the same approach as in manually editing products in Stoffenmanager®. This opening gives the user the possibility to get rid of wrong – perhaps caused by mistaken input – product data in the user product set.

3

**On which location will a product be placed in case no location was specified in the import file?**

It will be placed at the highest location in the location tree. In case you only selected the Digital Product Depot during the import dialogue the product will be place there (in the DPD).

4

**Is it possible to import additional information on a product?**

In the current version of the import it is not possible to import details on for instance suppliers (like address, contact information) or other information not directly linked to products. At the moment there are no plans to extend the import on this matter.

5

**Can EUH-statements be imported similar to hazard statements?**

Yes, all statements available on <https://stoffenmanager.com/Authorized/CompanyData/PhrasesExplained.aspx?Phrase=H> can be imported. EUH-statements have a type 'H' for the import.

6

**Can combined H-statements be imported for products?**

This can only be done if the combined statements are known in Stoffenmanager® (see: <https://stoffenmanager.com/Authorized/CompanyData/PhrasesExplained.aspx?Phrase=H>). It is not possible to import 'custom' combinations that are available in your source system but are not in the Stoffenmanager® list. These combined statements you will have to filter in your export or write an algorithm to map them to known statements in Stoffenmanager®.



## 5 Annex I: Intrinsic emission table for solid products

Name	Emission	Description
<b>Objects</b>	0	Solids as objects like blocks, chunks or slabs.
<b>Solid granules/grains/flakes</b>	0,01	For instance plastic granules, grains with a wax coating or bound fibres (e.g. cotton). No dispersion possible.
<b>Granules/grains/flakes</b>	0,03	Granules/grains/flakes that can fall apart (like washing-powder, sugar or fertilizer grains).
<b>Coarse dust</b>	0,1	A cloud of dust is generated in the air, but the dust settles quickly (e.g. sand, carbon black (coarse), calcium stearate, unbound fibres).
<b>Fine dust</b>	0,3	A cloud of dust is generated in the air and stays visible for a while (like flour dust or talcum powder).
<b>Extremely dusty products</b>	1	A cloud of dust is formed in the air and stays visible for a long time.

## 6 Annex II: Extensive example

```

<importproducts xmlns:xml="http://www.w3.org/XML/1998/namespace">
  <!-- Notice: Example is extract from Acetone, see:
  http://www.sciencelab.com/msds.php?msdsId=9927062 -->
  <!-- Opmerking: Dit voorbeeld is uitgewerkt uit aceton, zie:
  http://www.sciencelab.com/msds.php?msdsId=9927062 -->
  <components>
    <component id="AL3150000" casnumber="67-64-1" molecularweight="296"
    physicalform="liquid" marginaltype="margintype" vapourpressurepascal="2400"
    vapourpressuretemperature="20" boilingpoint="56" marginalvaluemgm3="59.41">
      <name>
        <![CDATA[AL3150000]]>
      </name>
    </component>
  </components>
  <products>
    <product id="SLA3501" physicalform="solid" intrinsicemission="1">
      <name>
        <![CDATA[Acetone2]]>
      </name>
      <locations>
        <location>
          <![CDATA[Afdeling A3]]>
        </location>
      </locations>
      <supplier>
        <![CDATA[leverancier]]>
      </supplier>
      <vibdate>2013-05-21</vibdate>
      <components>
        <component id="AL3150000" concentration="100" />
      </components>
      <phrases>
      </phrases>
    </product>
    <product id="SLA3502" physicalform="liquid" vapourpressurepascal="2400"
    vapourpressuretemperature="20" boilingpoint="56">
      <name>
        <![CDATA[Acetone]]>
      </name>
      <locations>
        <location>
          <![CDATA[Afdeling A]]>
        </location>
      </locations>
      <supplier>
        <![CDATA[leverancier]]>
      </supplier>
      <vibdate>2013-05-21</vibdate>
      <components>
        <component id="AL3150000" concentration="100" />
      </components>
      <phrases>
      </phrases>
      <wic>
        <hazardClassifications>
          <hazardClassification type="wms" id="explosive" />
        </hazardClassifications>
        <signalTerm type="danger" />
        <generalVentilation recommended="false" />
        <sourceVentilation recommended="true" />
        <ppes>
          <ppe typeId="Eye-resp--face-protection" id="Safety-goggles" />
          <ppe typeId="Respiratory-protection" id="Gasfilter-BE" />
        </ppes>
        <firstAidPhrases>
          <firstAidPhrase id="First-Aid-Eye-contact">
            <text xml:lang="en">
              Check for and remove any contact lenses. Immediately flush eyes
              with running water for at least 15 minutes, keeping eyelids
              open. Cold water may be used. Get medical attention.</text>
            </text>
          </firstAidPhrase>
        </firstAidPhrases>
      </wic>
    </product>
  </products>
</importproducts>

```

```

    <text xml:lang="nl">
        Controleer en verwijder contactlenzen. Spoel de ogen onmiddellijk
met stromend water gedurende tenminste 15 minuten en houd de oogleden
        open. Koud water kan worden gebruikt. Raadpleeg een arts.
    </text>
</firstAidPhrase>
<firstAidPhrase id="First-Aid-Skin-contact">
    <text xml:lang="en">
        In case of contact, immediately flush skin with plenty of water.
Cover the irritated skin with an emollient. Remove contaminated
        clothing and shoes. Cold water may be used. Wash clothing before
reuse. Thoroughly clean shoes before reuse. Get medical
        attention. In case of serious skin contact: Wash with a
disinfectant soap and cover the contaminated skin with an anti-bacterial cream.
        Seek medical attention.
    </text>
    <text xml:lang="nl">
        In geval van contact, huid onmiddellijk spoelen met veel water.
Bedeck de geïrriteerde huid met een verzachtend middel. Verwijder besmette
        kleding en schoenen. Koud water kan worden gebruikt. Was kleding
alvorens ze opnieuw te gebruiken. Maak schoenen grondig schoon voor hergebruik. medische hulp
        aandacht. In geval van ernstige huidcontact: Wassen met een
desinfecterende zeep en hebben betrekking op de verontreinigde huid met een anti-bacteriële
        crème.
        Raadpleeg een arts.
    </text>
</firstAidPhrase>
<firstAidPhrase id="First-Aid-Inhalation">
    <text xml:lang="en">
        If inhaled, remove to fresh air. If not breathing, give artificial
respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
        In case of serious inhalation: Evacuate the victim to a safe area
as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If
        breathing is difficult,
        administer oxygen. If the victim is not breathing, perform mouth-
to-mouth resuscitation. Seek medical attention.
    </text>
</firstAidPhrase>
<firstAidPhrase id="First-Aid-Swallowing">
    <text xml:lang="en">
        Do NOT induce vomiting unless directed to do so by medical
personnel. Never give anything by mouth to an unconscious
        person. Loosen tight clothing such as a collar, tie, belt or
waistband. Get medical attention if symptoms appear.
    </text>
</firstAidPhrase>
</firstAidPhrases>
<safetyPhrases>
    <safetyPhrase id="Cleaning-instructions">
        <text xml:lang="en">
            Flammable liquid. Keep away from heat. Keep away from sources of
ignition. Stop leak if without risk. Absorb with DRY earth, sand or other
            non-combustible material. Do not touch spilled material. Prevent
entry into sewers, basements or confined areas; dike if needed. Be careful that the product
            is not present at a concentration level above TLV. Check TLV on
the MSDS and with local authorities.
        </text>
    </safetyPhrase>
    <safetyPhrase id="Environmental-measures">
        <text xml:lang="en">
            Keep locked up.. Keep away from heat. Keep away from sources of
ignition. Ground all equipment containing material. Do not ingest.
            Do not breathe gas/fumes/ vapor/spray. Wear suitable protective
clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If
            ingested,
            seek medical advice immediately and show the container or the
label. (...)
        </text>
    </safetyPhrase>
    <safetyPhrase id="Storage-instructions">
        <text xml:lang="en">
            Store in a segregated and approved area (flammables area) . Keep
container in a cool, well-ventilated area. Keep container tightly closed and sealed until
            ready for use. Keep away from direct sunlight and heat and avoid
all possible sources of ignition (spark or flame).
        </text>
    </safetyPhrase>

```

```
<safetyPhrase id="Environmental-risks">
  <text xml:lang="en">
    Risks of explosion of the product in presence of mechanical
impact: Not available. Slightly explosive in presence of open
    flames and sparks, of oxidizing materials, of acids.
  </text>
</safetyPhrase>
<safetyPhrase id="Extinguishing-agents">
  <text xml:lang="en">
    Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use
DRY chemical powder. LARGE FIRE: Use alcohol foam,
    water spray or fog.
  </text>
</safetyPhrase>
</safetyPhrases>
</wic>
</product>
</products>
</importproducts>
```