

API documentation

Adrescheck Autocomplete v1

Summary

The ACI API provides a method to quickly return possible addresses based on partial address data. Next, it allows you to validate a postal address. Both for all countries of the world. A successful query will return a list of matching addresses.

HTTP base url

GET <https://api.postnl.nl/v1/address/autocomplete/>

The endpoint above requires an **apikey** in the header or as query parameter. The apikey should of course be the apikey provided by PostNL.

Autocomplete methods and input (query) parameters

GET <https://api.postnl.nl/v1/address/autocomplete/search>

A basic autocomplete call looks like:

<https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=GB&q=11%20anneter>

Fieldname	Mandatory/optional	Format	Example
countryIso	Mandatory	String [2] according to ISO 3166-1 'alpha-2', not 'numeric-3'.	GB
Uuid	Mandatory	The session unique identifier, either self-generated or requested (see below for request uuid).	38ee93b3-4ebb-4c6f-b810-cf32d5af2535
q	Mandatory	The text to actually query for. Could be empty when used in combination with the field postalCode	11 anneter
Apikey	Mandatory in header	String	The apikey provided by PostNL
postalCode	Optional	String	SW17 7HJ
cityName	Optional	String	Cookstown

Field	Optional	String – will only return values for this specific field. Possible values are [postalCode, cityName, address1, addressLine]	
excludePO	Optional (default: False)	Boolean – whether to filter out postal boxes or not	

Example search requests

- <https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=GB&q=&postalcode=SW17%207HJ>
This will return all the addresses with postal code SW17 7HJ
- <https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=GB&q=137&postalcode=SW17%207HJ>
This will return all the addresses with postal code SW17 7HJ and where '137' is part of the address. So all the addresses with house number 137
- <https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=BE&postalCode=3300&q=Getestraat%2025>
- <https://api.postnl.nl/v1/address/autocomplete/search?uuid=38ee93b3-4ebb-4c6f-b810-cf32d5af2535&countryIso=BE&postalCode=3300&q=&field=cityName>
This will return all the cities in Belgium with postalCode 3300.

Example result

For more explanation of the fields, see 'Output fields'.

```
[{"address1": "137 Trinity Road", "address2": "London, SW17 7HJ", "addressLine": "137 Trinity Road, LONDON, SW17 7HJ", "buildingName": "", "cityName": "London", "country": "", "countryIso": "gb", "floor": "", "formattedAddress": [ "137 Trinity Road", "LONDON", "SW17 7HJ", "United Kingdom" ], "houseNumber": 137, "houseNumberAddition": "", "htmlText": "137 Trinity Road, LONDON, SW17 7HJ", "id": "", "organization": "", "postalCode": "SW17 7HJ", "region": "Wandsworth", "streetName": "Trinity Road", "type": 3}, {"address1": "Flat 1, 137 Trinity Road", "address2": "London, SW17 7HJ", "addressLine": "Flat 1, 137 Trinity Road, LONDON, SW17 7HJ", "buildingName": "", "cityName": "London", "country": "", "countryIso": "gb", "floor": "Flat 1", "formattedAddress": [ "Flat 1", "137 Trinity Road", "LONDON", "SW17 7HJ", "United Kingdom" ], "houseNumber": 137, "houseNumberAddition": "", "htmlText": "Flat 1, 137 Trinity Road, LONDON, SW17 7HJ", "id": "", "organization": "", "postalCode": "SW17 7HJ", "region": "WandsworthFlat 1", "streetName": "Trinity Road", "type": 3}, {"address1": "Flat 2, 137 Trinity Road", "address2": "London, SW17 7HJ", "addressLine": "Flat 2, 137 Trinity Road, LONDON, SW17 7HJ", "buildingName": "", "cityName": "London", "country": "", "countryIso": "gb", "floor": "Flat 2", "formattedAddress": [ "Flat 2", "137 Trinity Road", "LONDON", "SW17 7HJ", "United Kingdom" ], "houseNumber": 137, "houseNumberAddition": "", "htmlText": "Flat 2, 137 Trinity Road, LONDON, SW17 7HJ", "id": "", "organization": "", "postalCode": "SW17 7HJ", "region": "WandsworthFlat 2", "streetName": "Trinity Road", "type": 3}
```

"United Kingdom"], "houseNumber": 137, "houseNumberAddition": "", "htmlText": "Flat 2, 137 Trinity Road, LONDON, SW17 7HJ", "id": "", "organization": "", "postalCode": "SW17 7HJ", "region": "WandsworthFlat 2", "streetName": "Trinity Road", "type": 3}, ...]

Using the uuid

The usage of a unique uuid is used to combine multiple calls within the same session. Only unique session are deduced from your allowed 'credits'. So multiple calls to **search** with the same uuid is seen as one call. A uuid can only be used for one day and for one country.

The uuid can be self-generated or can be retrieved by calling the following endpoint:

GET <https://api.postnl.nl/v1/address/autocomplete/token>

An example result is: {"uuid": "a7fb8c85-161a-420f-ad31-2b66c56a92a0"}

Fieldname	Mandatory/optional	Format	Example
Apikey	Mandatory in header	String	The apikey provided by PostNL
countryIso	Mandatory in query	String (2)	DE – the country for which to get the token

Output for search

The search endpoint returns a list of fields. Most fields will always be returned, sometimes extra fields will be returned, depending on the country and available details.

Fieldname	Description of attribute	Format [length]	Example
formattedAddress	The full address according to local/national formatting standards	Array of strings, dependent on country specific formatting standards	["11 Anneter Road", "COOKSTOWN", "BT80 0HZ", "UNITED KINGDOM"]
addressLine	The full address, separated by ','	String	11 Anneter Road
address1	The first part of the address, if the address needs to be presented on two lines. Contains the streetName, and optional the organization or other detailed address parts	String	

address2	The second part of the address, if the address needs to be presented on two lines. Contains the postalCode, cityName and countryName	String	COOKSTOWN, BT80 0HZ, UNITED KINGDOM
streetName	Street name of the address	String	Anneter Road
htmlText	The html-friendly representation of the address		
houseNumber	House number of the address	Number	11
houseNumberAddition	House number addition of the address	String	
postalCode	Postal code of the address	String	BT80 0HZ
cityName	City of the address	String	Cookstown
countryName	Country of the address	String	
countryIso	ISO 3166-1 alpha-2 code of the country of the address	String [2]	GB
Organization	Name of organization or company, when located on the address	String	
poBox	Whether the address is a postal box or not	Boolean	false
buildingName	Name of the building	String	
Floor	Floor that the address is located on	String	

NOTE: future improvements of the API can add output fields to give more information about addresses.

Practical example 1: filters on postalCode

Let's have a further look on how you can use AutoComplete to add a filter on postalCodes. So you're able to build the functionality visualized in the screenshot.

Step 1: autocomplete on postalCode only

To search for a list of postalcodes, you can use the following endpoint:

```
/search?uuid=<token>&countryIso=DE&q=2964&field=postalcode
```

The example response is (you get a list of more fields, but the postalCode is what you need)

```
[{..., "postalCode": "29640",...}, {..., "postalCode": "29641", }...]
```

In some cases it's even handier to use the htmlText directly, because the API will fill this field with the most-likely value you want to show to the customer.

```
[{..., "htmlText": "29640",...}, {..., "htmlText": "29641", }...]
```

Step 2: use the value of the postalCode to filter the addresses

To search for addresses with the selected postalCode 29643 (for example), you can use the same search-endpoint.

This will ask the API to return (complete) addressLines where the postalCode has value '29643' and where the addressline contains 'Auf dem'

```
/search?uuid=<token>&countryIso=DE&q=auf+dem+&field=addressline&postalcode=29643
```

The screenshot shows a web form titled "Adres" with the question "Waar wil je de artikelen bezorgd hebben?". It features a dropdown menu for "Duitsland" with a button "Ander land kiezen". Below is a "Postcode:" input field containing "2964", with a list of suggestions: "29640", "29641", "29643", "29644", "29646", and "29640". At the bottom is a search bar with the placeholder "Start met typen, dan tonen we suggesties" and a magnifying glass icon.

Postcode:

29643

The screenshot shows a search bar with "auf dem" entered. Below it is a list of address suggestions for postal code 29643: "Auf dem Hoop 3, 29643 Neuenkirchen", "Auf dem Hoop 4, 29643 Neuenkirchen", "Auf dem Hoop 5, 29643 Neuenkirchen", "Auf dem Hoop 6, 29643 Neuenkirchen", "Auf dem Hoop 7, 29643 Neuenkirchen" (highlighted in blue), and "Auf dem Hoop 8, 29643 Neuenkirchen".

In the result, you can (again) use the `htmlText` to fill the dropdown-box. You can also use the requested field `addressLine` (the values of `htmlText` and `addressLine` are the same).

Practical example 2: filters on `postalCode` and `cityName`

Step 1 – filter `cityNames` by `postalCodes`

Let's have a look where you also want a filter on `cityName`. In this additional example, we want to use the value of `postalCode` to filter on `cityNames`.

```
/search?uuid=<token>&countryIso=DE&q=&field=cityname&postalcode=29643
```

From the response, it's most convenient to use `htmlText` again. The value of `cityName` is identical to the value of `htmlText`, because you requested the `cityNames`.

Step 2 – filter `postalCode` by `CityName`

This UX should also support the case where the user starts by typing the `cityName` and wants to have a list of available `postalCodes`. To get a list of `cityNames` that contain 'Neuenkir', you can use the following endpoint:

```
/search?uuid=<token>&countryIso=DE&q=Neuenkir&field=cityname
```

The value of `cityName` can be used in the list of `postalCodes` by calling the following endpoint:

```
/search?uuid=<token>&countryIso=DE&q=&field=postalcode&cityname=Neuenkirchen
```

Step 3 – get list of `addressLines` based on a filter on `postalCode` and `cityName`:

```
/search?uuid=<token>&countryIso=DE&q=bi&field=addressline&postalcode=49586&cityname=Neuenkirchen
```

The image shows a user interface for a search application. At the top, there is a button for 'Duitsland' (Germany) and a button labeled 'Ander land kiezen' (Choose another country). Below this, there are two search scenarios. The first scenario shows a 'Postcode:' input field containing '29643' and a 'Plaats:' dropdown menu with 'Neuenkirchen' selected. The second scenario shows a 'Postcode:' input field containing 'Postcode' and a 'Plaats:' dropdown menu with 'Neuenkir' selected, and a list of suggestions below it: 'Neuenkirchen' (highlighted) and 'Neuenkirchen-Vörden'. Below each search scenario is a search bar with the placeholder text 'Start met typen, dan tonen we suggesties' and a magnifying glass icon.

Postcode: Plaats:

Im Birken 1, 49586 Neuenkirchen ✓

Im Birken 1, 49586 Neuenkirchen

Im Birken 3, 49586 Neuenkirchen

Practical Example 3 – same results as ACiv4

The latest versions of our addresscheck-Nederland and addresscheck-international API's use the queryParameters as this new Autocomplete.

Netherlands

To search for an address by postalCode, houseNumber and houseNumberAddition, you can call the /search endpoint:

```
/search?countryIso=NL&postalCode=1231AA&houseNumber=1
```

If there are more houseNumberAdditions on this address, all will be return (for this example: Rembrandtlaan 1, but also Rembrandtlaan 1 A.

```
/search?countryIso=NL&postalCode=5038GX&houseNumber=14&houseNumberAddition=7
```

Will return Dionysiusstraat 14 07, 5038GX TILBURG

International

The same queryParameters like cityName, postalCode, streetName, addressLine can be used. queryParameters like flat, stairs, floor and door won't work.

Possible HTTP status codes

HTTP status code	Explanation of the response
200	JSON response with requested data. If no address if found, an empty list is returned.

400	Error on customer-side. E.g. when not enough parameters are given.
401	Authorization error.
403	The request contains an address with a country not supported by this entry point.
500	Error on PostNL side.