

# Key Trade Data Points on the EU27 Pharmaceutical Supply Chain





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Date: July 2020

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This data report has been commissioned and funded by the European Federation of Pharmaceutical Industries and Associations (EFPIA) but is the independent research work, carried out by the European Centre for International Political Economy (ECIPE).





# Key Trade Data Points on the EU27 Pharmaceutical Supply Chain

(Source: Eurostat, 2019)1

Definitions of different pharmaceutical final and intermediate products used in this data overview:

- 1. **All pharmaceuticals (AP)** = total of all finished pharmaceutical products, active pharmaceutical ingredients, vaccines, antibiotics and semi-finished pharmaceutical products.
- 2. **Human medicinal products (HMP)** = a substance of combination of substances for human use that is intended to treat, prevent of diagnose a disease, or to restore, correct of modify physiological functions by exerting a pharmacological, immunological or metabolic action (here: all FPPs and vaccines).
- 3. **Finished pharmaceutical products (FPP)** = medicinal product that has undergone all stages of production, including packaging in its final container (here: all FPPs, including antibiotics FPPs).
- 4. **Active pharmaceutical ingredients (API)** = substance used in a finished pharmaceutical product (FPP) intended to furnish pharmacological activity or otherwise have direct effect in cure, mitigation, treatment or prevention of a disease (here: all APIs, including antibiotics APIs).
- 5. **Vaccines** = substances used to stimulate the production of antibodies and provide immunity against one or several diseases prepared from the causative agent of a disease.
- 6. Antibiotics = medicine that inhibits the growth of or destroys micro-organisms (here: both FPPs and APIs).
- 7. **Semi-finished products (SFP)** = intermediate pharmaceutical bulk products that can be used as inputs into FPPs and its intermediates.

# Content page

| 1. |    | All pharmaceuticals (AP)                   | 5        |
|----|----|--|----------|
|    | a. | Imports (in values, Euro)                  |          |
|    | b. | Exports (in values, Euro)                  |          |
|    | c. | Imports (in volumes - tonnes)              | б        |
|    | d. | Exports (in volumes - tonnes)              |          |
| 2. |    | Human Medicinal Products (HMP)             | 8        |
|    | a. | Imports (in values, Euro)                  |          |
|    | b. | Exports (in values, Euro)                  | 8        |
|    | c. | Imports (in volumes - tonnes)              | <u>S</u> |
|    | d. | Exports (in volumes - tonnes)              | 10       |
| 3. |    | Finished Pharmaceutical Products (FPP)     | 11       |
|    | a. | Imports (in values, Euro)                  | 11       |
|    | b. | Exports (in values, Euro)                  | 11       |
|    | c. | Imports (in volumes - tonnes)              | 12       |
|    | d. | Exports (in volumes - tonnes)              | 12       |
| 4. |    | Active Pharmaceutical Ingredients (APIs)   | 14       |
|    | a. | Imports (in values, Euro)                  | 14       |
|    | b. | Exports (in values, Euro)                  | 14       |
|    | c. | Imports (in volumes - tonnes)              | 15       |
|    | d. | Exports (in volumes - tonnes)              | 15       |
| 5. |    | Vaccines                                   | 17       |
|    | a. | Vaccines imports (in value terms, Euro)    | 17       |
|    | b. | Vaccines exports (in value terms, Euro)    | 17       |
|    | c. | Vaccines imports (in volume terms, tonnes) | 18       |
|    | d. | Vaccines exports (in volume terms, tonnes) | 18       |
|    |    |  |          |

<sup>1</sup> EU Eurostat data <a href="https://ec.europa.eu/eurostat/data/database">https://ec.europa.eu/eurostat/data/database</a>



| 6. | Antibiotics                      | 19 |
|----|----------------------------------|----|
| a  | a. Imports (in values, Euro)     | 19 |
|    | b. Exports (in values, Euro)     |    |
|    | c. Imports (in volumes - tonnes) |    |
|    | d. Exports (in volumes - tonnes) |    |
|    | nex 1: Table overviews           |    |
|    | nex 2: Methodology               |    |
|    | nex 3: FII CN Codes Product List |    |



# 1. All pharmaceuticals (AP)

# a. Imports (in values, Euro)

#### The EU27 imports all pharmaceuticals (APs) from many countries:

- More than 145 countries supply the EU27 with APs; the top-5 supplies 90.9%.
- Total EU27 imports of APs amounted to Euro 291 billion in 2019.

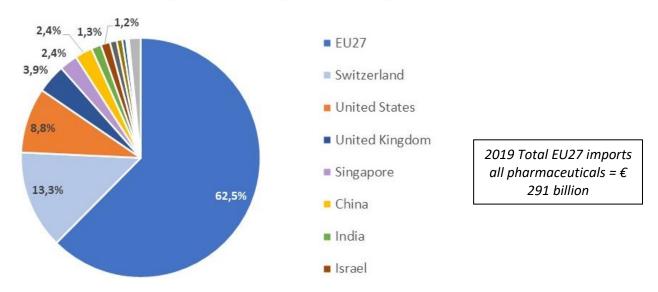
#### The majority of EU27 imports of all pharmaceuticals are from Europe itself:

- In 2019, 79.6% of EU27 imports of APs came from Europe (62.5% from EU27, 13.3% from Switzerland, 3.9% from the United Kingdom).
- In 2019, 8.8% of EU27 imports of APs came from the United States.

# China and India are *not* the largest suppliers to the EU27 of all pharmaceuticals:

• In 2019, the EU27 imported 2.4% and 1.3% of its APs from China and India respectively.

# EU27 imports of all pharmaceutical products (2019, value - %)



# b. Exports (in values, Euro)

# The EU27 exports of all pharmaceuticals to many countries:

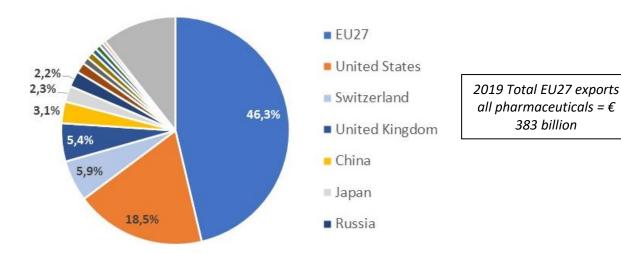
- In 2019, 186 countries are supplied by the EU27 with APs; the top-5 export destinations constitute 79.1% of EU27 exports.
- Total EU27 exports of APs amounted to Euro 383 billion in 2019.

# The EU27 exports of all pharmaceuticals go to Europe mainly, followed by the US:

- In 2019, 57.6% of EU27 exports of APs went to Europe (46.3% to EU27, 5.9% to Switzerland, 5.4% to the United Kingdom).
- In 2019, 18.5% of EU27 exports of APs went to the United States.
- In 2019, China and India received 3.1% and 0.3% of EU27 exports of APs respectively.



# EU27 exports All Pharmaceutical Products (2019, value - %)



#### c. Imports (in volumes - tonnes)

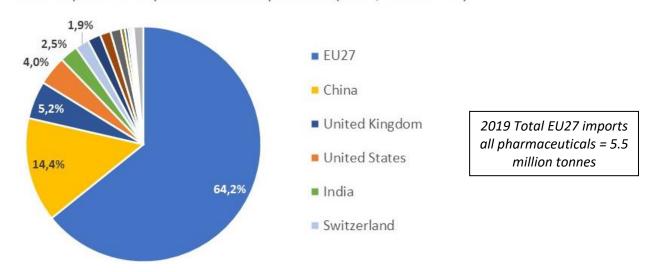
# The majority of EU27 imports of all pharmaceuticals (in volumes) are from the EU27 itself:

- In 2019, 71.3% of EU27 imports of APs (in kg) came from Europe (64.2% from the EU27, 5.2% from the United Kingdom, and 1.9% from Switzerland).
- In 2019, 4.0% of EU27 imports of APs (in kg) came from the United States.
- Total EU27 imports of APs amounted to 5.5 million tonnes in 2019.

#### China is a distant 2<sup>nd</sup> supplier of all pharmaceuticals to the EU27 after the EU itself (in volumes):

• In 2019, China and India supplied 14.4% and 2.5% of EU27 imports of APs (in kg) respectively.

# EU27 imports of all pharmaceutical products (2019, volume - %)



# d. Exports (in volumes - tonnes)

#### The majority of EU27 exports of all pharmaceuticals (in volumes) are going to the EU27 itself:

• In 2019, 69.7% of EU27 exports of APs (in kg) went to Europe (60.9% to the EU27, 6.1% to the United Kingdom, and 2.7% to Switzerland).

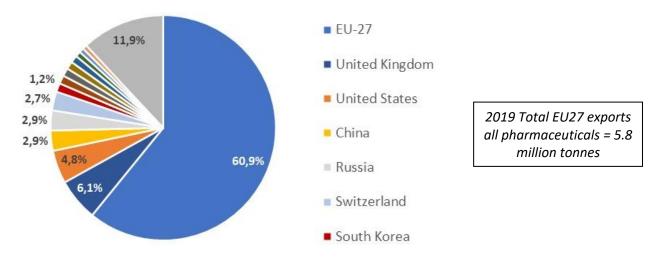


• Total EU27 exports of APs amounted to 5.8 million tonnes in 2019.

# The UK and US are the EU27's largest extra-EU export destinations for all pharmaceuticals, not China or India (in volumes):

- In 2019, 6.1% of EU27 exports of APs (in kg) went to the United Kingdom.
- In 2019, 4.8% of EU27 exports of APs (in kg) went to the United States.
- In 2019, China and India received 2.9% and 1.1% of EU27 exports of APs (in kg) respectively

# EU-27 exports of all pharmaceutical products (2019, volume - %)





# 2. Human Medicinal Products (HMP)

# a. Imports (in values, Euro)

#### The EU27 imports human medicinal products from many countries:

- The top-5 countries supply the EU27 with 96.1% of HMPs.
- Total EU27 imports of HMPs amounted to Euro 193.7 billion in 2019.

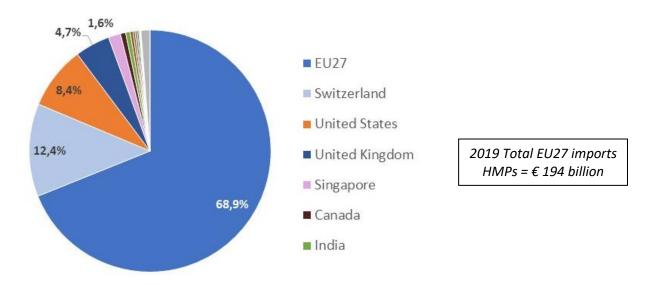
#### The majority of EU27 imports of human medicinal products are from Europe itself:

- In 2019, 86.2% of EU27 imports of HMPs came from Europe (68.9% from EU27, 12.4% from Switzerland, 4.7% from the United Kingdom, and 0.2% from Norway).
- In 2019, 8.4% of EU27 imports of HMPs came from the United States.

# China and India are not significant suppliers to the EU27 of human medicinal products:

• In 2019, the EU27 imported 0.3% and 0.6% of its HMPs from China and India respectively.

# EU27 imports Human Medicinal Products (2019, value - %)



# b. Exports (in values, Euro)

#### The EU27 exports of human medicinal products to many countries:

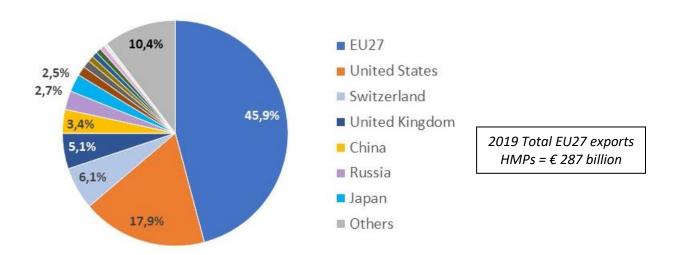
- In 2019, the top-5 export destinations constitute 78.4% of EU27 HMP exports.
- Total EU27 exports of HMPs amounted to Euro 286.9 billion in 2019.

# EU27 exports of human medicinal products go to Europe mainly, followed by the US:

- In 2019, 57 % of EU27 exports of HMPs went to Europe (45.9% to EU27, 6.1% to Switzerland, 5.1% to the United Kingdom).
- In 2019, 17.9% of EU27 exports of HMPs went to the United States.
- In 2019, China and India received 3.4% and 0.3% of EU27 exports of HMPs respectively.



# EU27 exports Human Medicinal Products (2019, value - %)



# c. Imports (in volumes - tonnes)

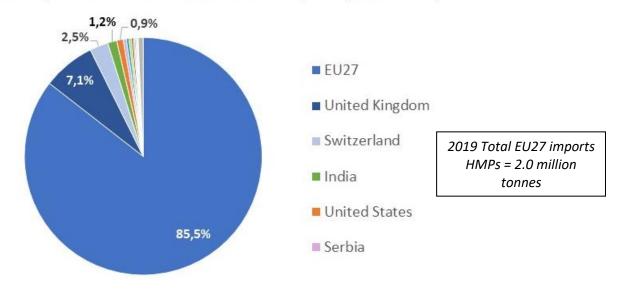
# The majority of EU27 imports of human medicinal products (in volumes) are from the EU27 itself:

- In 2019, 96.1% of EU27 imports of HMPs (in kg) came from Europe (85.5 % from the EU27, 7.1% from the United Kingdom, 2.5% from Switzerland, 0.4% from Serbia, 0.4% from Norway, 0.2% from North Macedonia).
- In 2019, 0.9% of EU27 imports of HMPs (in kg) came from the United States.
- Total EU27 imports of HMPs amounted to 2.0 million tonnes in 2019.

# China and India are not significant suppliers to the EU27 of human medicinal products (in volumes):

• In 2019, China and India supplied 0.3% and 1.2% of EU27 imports of HMPs (in kg) respectively.

# EU27 imports Human Medicinal Products (2019, volume - %)





# d. Exports (in volumes - tonnes)

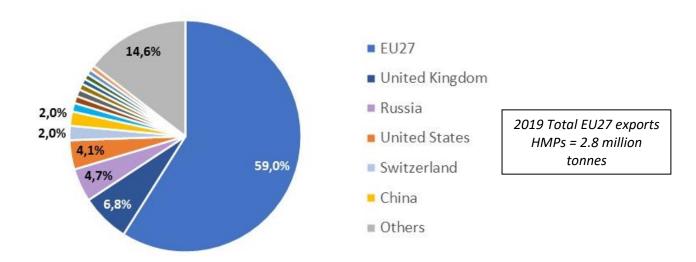
# The majority of EU27 exports of human medicinal products (in volumes) are going to the EU27 itself:

- In 2019, 68.5% of EU27 exports of HMPs (in kg) went to Europe (59.0% to the EU27, 6.8% to the United Kingdom, 2.0% to Switzerland, and 0.7% to Ukraine).
- Total EU27 exports of all pharmaceutical products amounted to 2.8 million tonnes in 2019.

#### The UK, Russia, and US are the EU27's largest extra-EU export destinations for HMPs (in volumes):

- In 2019, 6.8% of EU27 exports of HMPs (in kg) went to the United Kingdom.
- In 2019, 4.7% of EU27 export of HMPs (in kg) went to Russia.
- In 2019, 4.1% of EU27 exports of HMPS (in kg) went to the United States.
- In 2019, China and India received 2.0% and 0.3% of EU27 exports of HMPs (in kg) respectively

# EU27 exports Human Medicinal Products (2019, volume - %)





# 3. Finished Pharmaceutical Products (FPP)

#### a. Imports (in values, Euro)

#### The EU27 imports finished pharmaceutical products from many countries:

- More than 127 countries supply the EU27 with FPPs; the top-5 supplies 96.1%.
- Total EU27 imports of FPPs amounted to Euro 181 billion in 2019.

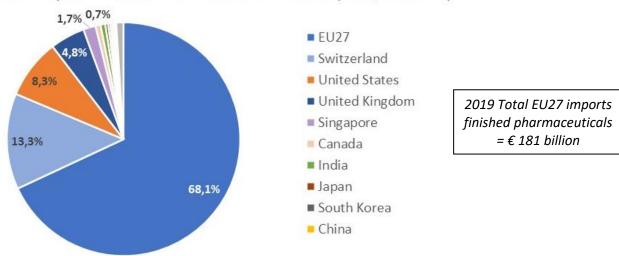
#### The majority of EU27 imports of finished pharmaceutical products come from Europe itself:

- In 2019, 86.2% of EU27 imports of FPP came from Europe (68.1% from EU27, 13.3% from Switzerland, 4.8% from the United Kingdom).
- In 2019, 8.3% of EU27 imports of FPP came from the United States.

# China and India are *not* the largest suppliers of finished pharmaceutical products to the EU27 (in values)

• In 2019, the EU27 imported 0.6% of its FPPs from India and 0.3% from China.

# EU27 imports Finished Pharmaceutical Products (2019, Value - %)



# b. Exports (in values, Euro)

# The EU27 exports finished pharmaceutical products to many countries:

- In 2019, 181 countries are supplied by the EU27 with FPP; the top-5 export destinations constitute 78.4% of EU27 exports.
- Total EU27 exports of FPPs amounted to Euro 266 billion in 2019.

#### **EU27** exports of finished pharmaceutical products:

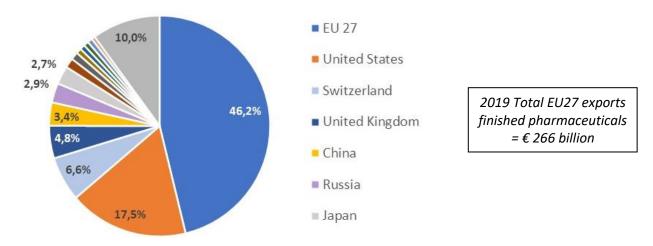
• In 2019, 57.5% of EU27 exports of FPP went to Europe (46.2% to EU27, 6.6% to Switzerland, 4.8% to the United Kingdom).

# The United States is the largest extra-EU27 export destination for finished pharmaceutical products:

- In 2019, 17.5% of EU27 exports of FPP went to the United States.
- In 2019, China and India received 3.4% and 0.2% of EU27 exports of FPP respectively.



# EU27 exports Finished Pharmaceutical Products (2019, Value - %)



# c. Imports (in volumes - tonnes)

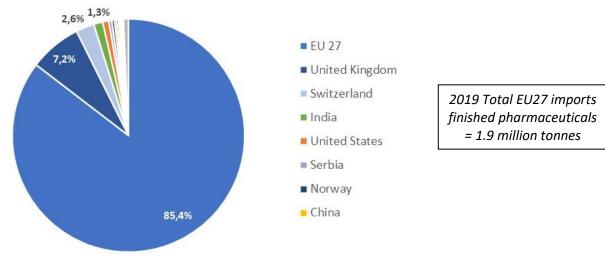
#### The majority of EU27 imports of finished pharmaceutical products (in volumes) come from the EU27 itself:

- In 2019, the top-5 countries/regions supply 97.3% of all FPPs to the EU27.
- In 2019, 95.2% of EU27 imports of FPPs (in kg) came from Europe (85.7% from the EU27, 7.2% from the United Kingdom, 2.6% from Switzerland, 0.2% from Norway and 0.1% from Serbia).
- In 2019, 0.8% of EU27 imports of FPPs (in kg) came from the United States.
- Total EU27 imports of FPPs amounted to 1.9 million tonnes in 2019.

# China and India are not significant suppliers of finished pharmaceutical products to the EU27 (in volumes):

• In 2019, China and India supplied 0.3% and 1.3% of EU27 imports of pharmaceutical products (in kg) respectively.

EU27 imports of Finished Pharmaceutical Products (2019, volume - %)



# d. Exports (in volumes - tonnes)

The majority of EU27 exports of finished pharmaceutical products are going to the EU27 itself:

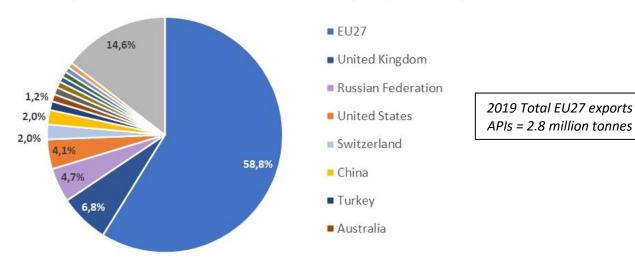


• In 2019, 67.6% of EU27 exports of FPPs (in kg) went to Europe (58.8% to the EU27; 6.8% to the United Kingdom and 2.0% to Switzerland.

# The UK and Russia are the EU27's largest extra-EU export destinations (in values):

- In 2019, 6.8% of EU27 exports of FPPs (in kg) went to the United Kingdom and 4.7% went to Russia.
- In 2019, China and India received 2.0% and 0.3% of EU27 exports of FPPs (in kg) respectively.

EU27 exports of Finished Pharmaceutical Products (2019, volume -%)





# 4. Active Pharmaceutical Ingredients (APIs)

# a. Imports (in values, Euro)

#### The EU27 imports active pharmaceutical ingredients (APIs) from many countries:

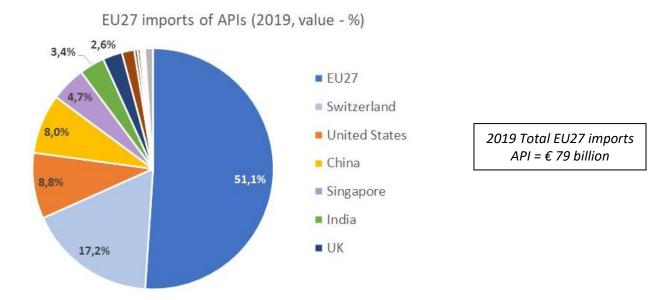
• More than 119 countries supply the EU27 with APIs; the top-5 supplies 89.8%.

#### The majority of EU27 imports of APIs (in values) are from Europe itself:

- In 2019, 70.9% of EU27 imports of APIs came from Europe (51.1% EU27, 17.2% Switzerland, 2.6% United Kingdom).
- In 2019, 8.8% of EU27 imports of APIs came from the United States.

#### China and India are not the largest suppliers to the EU27 of APIs (in values)

• In 2019, China and India constituted 8.0% and 3.4% of EU27 imports of APIs respectively.



# b. Exports (in values, Euro)

#### The EU27 exports APIs to many countries:

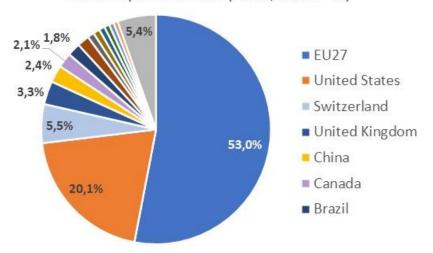
• In 2019, 146 countries are supplied by the EU27 with APIs; the top-5 export destinations constitute 84.3% of EU27 exports.

#### EU27 exports of APIs (in values) go mainly to Europe and then to the US:

- In 2019, 61.8% of EU27 exports of APIs went to Europe (53.0% EU27, 5.5% Switzerland, 3.3% United Kingdom).
- In 2019, 20.1% of EU27 exports of APIs went to the United States.
- In 2019, China and India received 2.4% and 0.9% of EU27 exports of APIs respectively.



# EU27 exports of APIs (2019, value - %)



2019 Total EU27 exports API = € 77 billion

# c. Imports (in volumes - tonnes)

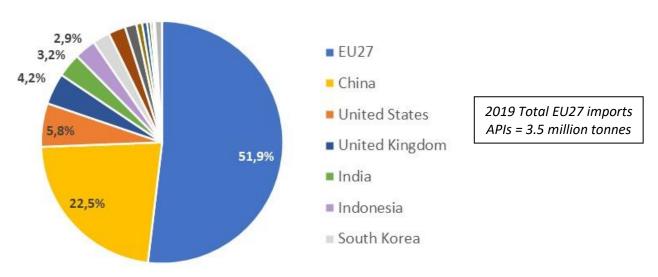
#### The majority of EU27 imports of APIs (in volumes) are from the EU27 itself:

• In 2019, 57.6% of EU27 imports of APIs (in kg) came from Europe (51.9% from the EU27; 4.2% from the United Kingdom and 1.5% from Switzerland.

#### China is 2<sup>nd</sup> largest supplier of APIs to the EU27 (in volumes), followed by the US:

- In 2019, China and India supplied 22.5% and 3.2% of EU27 imports of APIs (in kg).
- In 2019, 5.8% of EU27 imports of APIs (in kg) came from the United States.

# EU27 imports of APIs (2019, volume - %)



# d. Exports (in volumes - tonnes)

#### The majority of EU27 exports of APIs are going to the EU27 itself:

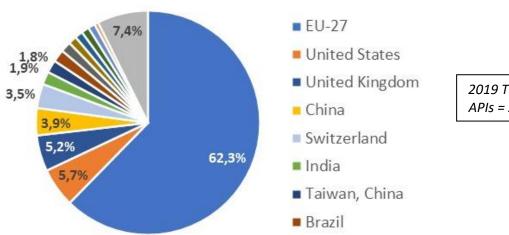
• In 2019, 71.0% of EU27 exports of APIs (in kg) went to Europe (62.3% to the EU27; 5.2% to the United Kingdom 3.5% to Switzerland.



# The UK and US are the EU27's largest extra-EU export destinations:

- In 2019, 5.7% of EU27 exports of APIs (in kg) went to the United States and 5.2% to the United Kingdom.
- In 2019, China and India received 3.9% and 1.9% of EU27 exports of APIs (in kg) respectively.

# EU27 exports of APIs (2019, volume - %)



2019 Total EU27 exports APIs = 2.8 million tonnes



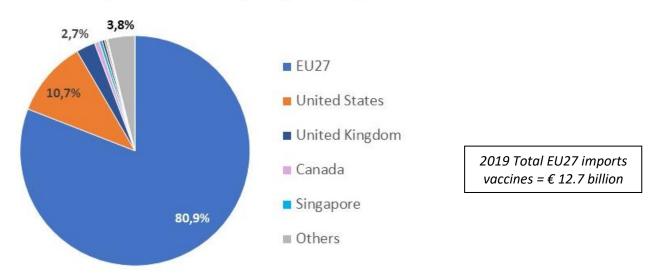
# 5. Vaccines

# a. Vaccines imports (in value terms, Euro)

The large majority of EU27 imports of vaccines in value-terms are from the EU27 itself, followed by the US:

- In 2019, 80.9% of EU27 imports of vaccines came from other EU27 countries (the EU Internal Market).
- In 2019 10.7% of EU27 imports of vaccines came from the United States.
- In 2019, 2.7% of EU27 imports of vaccines came from the United Kingdom.
- In 2019, China and India constituted less than 0.05% and 0.1% of EU27 imports of vaccines respectively.

# EU27 imports of vaccines (2019, value - %)

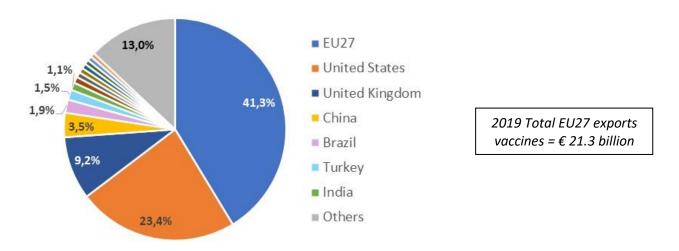


# b. Vaccines exports (in value terms, Euro)

The largest share of EU27 exports of vaccines in value-terms go to the EU27 itself, followed by the US; India and China are top-10 export destinations for EU vaccines:

- In 2019, 41.3% of EU27 exports of vaccines went to other EU27 countries (the EU Internal Market).
- In 2019 23.4% of EU27 exports of vaccines went to the United States.
- In 2019 9.2% of EU27 exports of vaccines went to the United Kingdom.
- In 2019, China and India constituted 3.5% and 1.1% respectively of EU27 vaccines exports.
- In 2019, 13.0% of EU27 vaccine exports when to 'other' countries (suggesting broad export coverage).

EU27 exports of vaccines (2019, value - %)



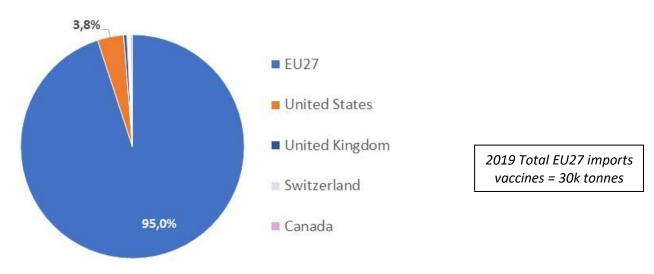


# c. Vaccines imports (in volume terms, tonnes)

The large majority of EU27 imports of vaccines in volume-terms are from the EU27 itself, followed by the US; India and China are insignificant suppliers:

- In 2019, 95.0% of EU27 imports of vaccines came from other EU27 countries (the EU Internal Market).
- In 2019 3.8% of EU27 imports of vaccines came from the United States.
- In 2019, China and India constituted less than 0.05% of EU27 imports of vaccines each.

# EU27 imports of vaccines (2019, volume - %)

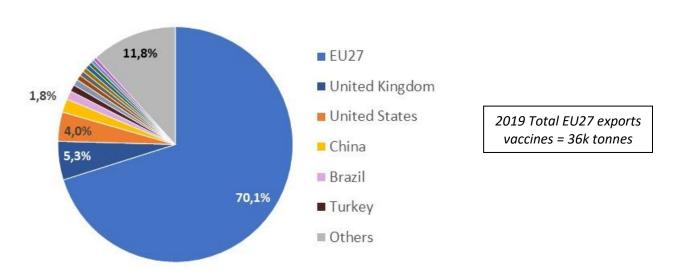


#### d. Vaccines exports (in volume terms, tonnes)

The large majority of EU27 exports of vaccines in volume-terms go to the EU27 itself, followed by the US; India and China are top-10 export destinations for EU vaccines:

- In 2019, 70.1% of EU27 exports of vaccines went to other EU27 countries (the EU Internal Market).
- In 2019 5.3% of EU27 exports of vaccines went to the United Kingdom.
- In 2019, 4.0% of EU27 exports of vaccines went to the United States.
- In 2019, China and India constituted 1.8% and 0.7% respectively of EU27 exports of vaccines.

# EU27 exports of vaccines (2019, volume - %)





#### 6. Antibiotics

# a. Imports (in values, Euro)

### The EU27 imports antibiotics from many countries:

- The top-5 suppliers supply 92.6% of all antibiotics to the EU27.
- Total EU27 imports of antibiotics amounted to Euro 9.7 billion in 2019.

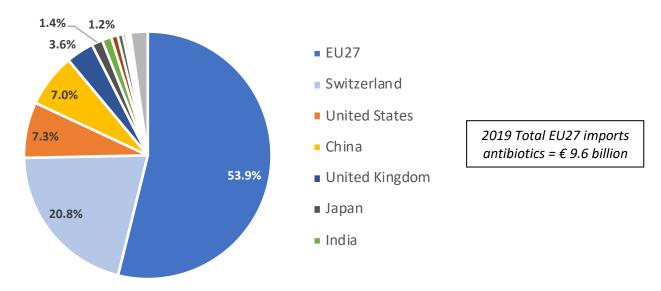
#### The majority of EU27 imports antibiotics come from Europe itself:

- In 2019, 78.3% of EU27 imports of antibiotics came from Europe (53.9% from EU27, 20.8% from Switzerland, and 3.6% from the United Kingdom).
- In 2019, 7.3% of EU27 imports of antibiotics came from the United States.

# China and India are not the largest suppliers of antibiotics to the EU27 (in values)

• In 2019, the EU27 imported 7.0% of its antibiotics from China and 1.2% from India.

# EU27 antibiotics imports (2019, value - %)



#### b. Exports (in values, Euro)

# The EU27 exports antibiotics to many countries:

- In 2019, the top-5 export destinations of the EU27 constituted 73.3% of EU27 exports.
- Total EU27 exports of antibiotics amounted to Euro 11.8 billion in 2019.

#### **EU27 exports of antibiotics:**

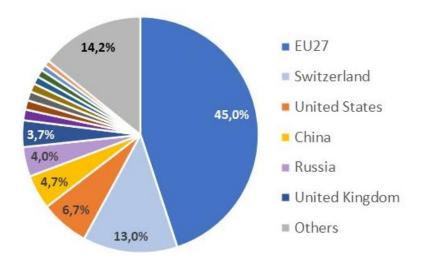
• In 2019, 61.6% of EU27 exports of antibiotics went to Europe (45.0% to EU27, 13.0% to Switzerland, 3.7% to the United Kingdom).

#### The United States is the largest extra-EU27 export destination for antibiotics:

- In 2019, 6.7% of EU27 exports of antibiotics went to the United States.
- In 2019, China and India received 4.7% and 1.2% of EU27 exports of antibiotics respectively.



# EU27 antibiotics exports (2019, value - %)



2019 Total EU27 exports antibiotics = € 11.8 billion

# c. Imports (in volumes - tonnes)

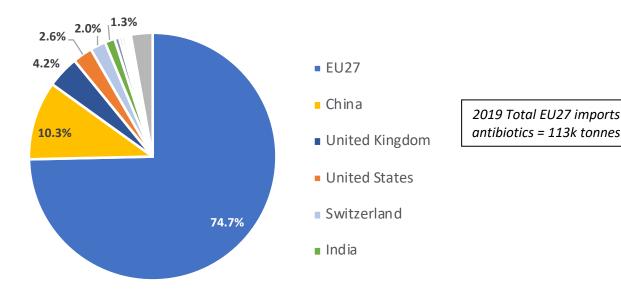
#### The majority of EU27 imports of antibiotics (in volumes) come from the EU27 itself:

- In 2019, the top-5 countries/regions supplied 93.7% of all antibiotics to the EU27.
- In 2019, 81.2% of EU27 imports of antibiotics (in kg) came from Europe (74.7% from the EU27, 4.2% from the United Kingdom, 2.0% from Switzerland, 0.2% from Norway, and 0.1% from North Macedonia).
- In 2019, 2.6% of EU27 imports of antibiotics (in kg) came from the United States.
- Total EU27 imports of antibiotics amounted to 113 thousand tonnes in 2019.

# China is 2nd largest supplier of antibiotics to the EU27 (in volumes), followed by the UK and US:

- In 2019, China and India supplied 10.3% and 1.3% of EU27 imports of antibiotics (in kg) respectively.
- In 2019, 4.2% of EU27 imports of antibiotics (in kg) came from the United Kingdom.
- In 2019, 2.6% of EU27 imports of antibiotics (in kg) came from the United States.

# EU27 antibiotics imports (2019, volume - %)





# d. Exports (in volumes - tonnes)

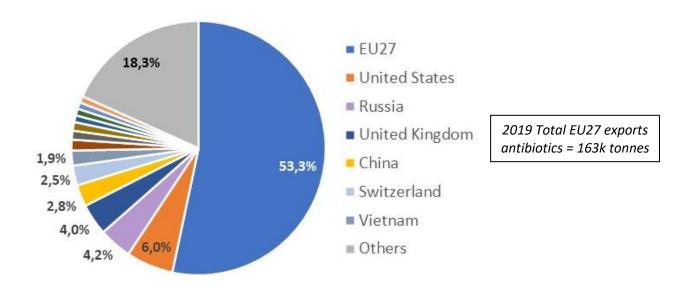
# The majority of EU27 exports of antibiotics are going to the EU27 itself:

• In 2019, 59.8% of EU27 exports of antibiotics (in kg) went to Europe (53.3% to the EU27; 4.0% to the United Kingdom and 2.5% to Switzerland.

#### The US and Russia are the EU27's largest extra-EU export destinations (in values):

- In 2019, 6.0% of EU27 exports of antibiotics (in kg) went to the United Kingdom and 4.2% went to Russia.
- In 2019, China and India received 2.8% and 0.8% of EU27 exports of antibiotics (in kg) respectively.

# EU27 antibiotics exports (2019, volume - %)





# Annex 1: Table overviews

# A. EU27 imports and exports of total pharmaceutical products

# EU27 all pharmaceutical imports (values, bln Euro) EU27 all pharmaceutical exports (values, bln Euro)

|                |                | Import (value, |           |
|----------------|----------------|----------------|-----------|
| Rank           | Country        | bln Euro)      | Share (%) |
| 1              | EU27           | 181,7          | 62,5%     |
| 2              | Switzerland    | 38,6           | 13,3%     |
| 3              | United States  | 25,6           | 8,8%      |
| 4              | United Kingdom | 11,4           | 3,9%      |
| 5              | Singapore      | 7,1            | 2,4%      |
| 6              | China          | 6,9            | 2,4%      |
| 7              | India          | 3,9            | 1,3%      |
| 8              | Israel         | 3,6            | 1,2%      |
| 9              | South Korea    | 2,7            | 0,9%      |
| 10             | Japan          | 2,2            | 0,8%      |
| 11             | Canada         | 1,5            | 0,5%      |
| 12             | Norway         | 0,7            | 0,2%      |
| 13             | Turkey         | 0,2            | 0,1%      |
| 14             | Taiwan, China  | 0,2            | 0,1%      |
| 15             | Others         | 4,6            | 1,6%      |
| Total (Euro, b | illion)        | 290,9          |           |

|                       |                | Export (value, |           |
|-----------------------|----------------|----------------|-----------|
| Rank                  | Country        | bln Euro)      | Share (%) |
| 1                     | EU27           | 177,4          | 46,3%     |
| 2                     | United States  | 70,8           | 18,5%     |
| 3                     | Switzerland    | 22,4           | 5,9%      |
| 4                     | United Kingdom | 20,7           | 5,4%      |
| 5                     | China          | 11,8           | 3,1%      |
| 6                     | Japan          | 8,7            | 2,3%      |
| 7                     | Russia         | 8,6            | 2,2%      |
| 8                     | Canada         | 5,6            | 1,4%      |
| 9                     | Brazil         | 3,7            | 1,0%      |
| 10                    | Australia      | 3,7            | 1,0%      |
| 11                    | Turkey         | 2,8            | 0,7%      |
| 12                    | South Korea    | 2,7            | 0,7%      |
| 13                    | Saudi Arabia   | 2,1            | 0,5%      |
| 14                    | Taiwan, China  | 1,6            | 0,4%      |
| 15                    | Others         | 40,6           | 10,6%     |
| Total (Euro, billion) |                | 383,2          |           |

# EU27 all pharmaceutical imports (volumes, '000 tonnes)

| Rank                     | Country        | Import<br>(volumes, '000<br>tonnes) | Share (%) |
|--------------------------|----------------|-------------------------------------|-----------|
| 1                        | EU27           | 3547,6                              | 64,2%     |
| 2                        | China          | 793,0                               | 14,4%     |
| 3                        | United Kingdom | 287,2                               | 5,2%      |
| 4                        | United States  | 221,9                               | 4,0%      |
| 5                        | India          | 139,4                               | 2,5%      |
| 6                        | Switzerland    | 104,0                               | 1,9%      |
| 7                        | Indonesia      | 99,8                                | 1,8%      |
| 8                        | South Korea    | 81,0                                | 1,5%      |
| 9                        | Argentina      | 79,5                                | 1,4%      |
| 10                       | Japan          | 29,6                                | 0,5%      |
| 11                       | Russia         | 23,8                                | 0,4%      |
| 12                       | Ukraine        | 16,2                                | 0,3%      |
| 13                       | Norway         | 15,3                                | 0,3%      |
| 14                       | Brazil         | 12,6                                | 0,2%      |
| 15                       | Others         | 73,0                                | 1,3%      |
| Total (tonnes, thousand) |                | 5523,9                              |           |

# EU27 all pharmaceutical exports (volumes, '000 tonnes)

|                          |                | Export<br>(volumes, '000 |           |
|--------------------------|----------------|--------------------------|-----------|
| Rank                     | Country        | tonnes)                  | Share (%) |
| 1                        | EU-27          | 3508,6                   | 60,9%     |
| 2                        | United Kingdom | 351,3                    | 6,1%      |
| 3                        | United States  | 274,7                    | 4,8%      |
| 4                        | China          | 166,7                    | 2,9%      |
| 5                        | Russia         | 166,5                    | 2,9%      |
| 6                        | Switzerland    | 156,1                    | 2,7%      |
| 7                        | South Korea    | 71,9                     | 1,2%      |
| 8                        | Brazil         | 69,5                     | 1,2%      |
| 9                        | Turkey         | 66,7                     | 1,2%      |
| 10                       | Taiwan, China  | 63,6                     | 1,1%      |
| 11                       | India          | 60,7                     | 1,1%      |
| 12                       | Norway         | 44,7                     | 0,8%      |
| 13                       | Japan          | 37,9                     | 0,7%      |
| 14                       | Saudi Arabia   | 37,4                     | 0,6%      |
| 15                       | Other          | 688,7                    | 11,9%     |
| Total (tonnes, thousand) |                | 5765,1                   |           |



# B. EU27 imports and exports of Finished Pharmaceutical Products (FPP)

# **EU27** imports of FPP (values, bln Euro)

|                |                | Import (value, |           |
|----------------|----------------|----------------|-----------|
| D              |                |                | Ch (0/)   |
| Rank           | Country        | bln Euro)      | Share (%) |
| 1              | EU27           | 123,2          | 68,1%     |
| 2              | Switzerland    | 24,0           | 13,3%     |
| 3              | United States  | 14,9           | 8,3%      |
| 4              | United Kingdom | 8,7            | 4,8%      |
| 5              | Singapore      | 3,1            | 1,7%      |
| 6              | Canada         | 1,3            | 0,7%      |
| 7              | India          | 1,2            | 0,6%      |
| 8              | Japan          | 0,7            | 0,4%      |
| 9              | South Korea    | 0,5            | 0,3%      |
| 10             | China          | 0,5            | 0,3%      |
| 11             | Norway         | 0,4            | 0,2%      |
| 12             | Israel         | 0,3            | 0,1%      |
| 13             | Turkey         | 0,2            | 0,1%      |
| 14             | Serbia         | 0,1            | 0,1%      |
| 15             | Others         | 1,8            | 1,0%      |
| Total (Euro, b | illion)        | 181,0          |           |

# **EU27** exports of FPP (values, bln Euro)

| Rank                  | Country        | Export (value,<br>bin Euro) | Share (%) |
|-----------------------|----------------|-----------------------------|-----------|
| 1                     | EU 27          | 122,7                       | 46,2%     |
|                       |                |                             |           |
| 2                     | United States  | 46,5                        | 17,5%     |
| 3                     | Switzerland    | 17,4                        | 6,6%      |
| 4                     | United Kingdom | 12,6                        | 4,8%      |
| 5                     | China          | 9,1                         | 3,4%      |
| 6                     | Russia         | 7,6                         | 2,9%      |
| 7                     | Japan          | 7,1                         | 2,7%      |
| 8                     | Canada         | 3,8                         | 1,4%      |
| 9                     | Australia      | 3,0                         | 1,1%      |
| 10                    | South Korea    | 2,1                         | 0,8%      |
| 11                    | Turkey         | 2,0                         | 0,7%      |
| 12                    | Brazil         | 1,9                         | 0,7%      |
| 13                    | Saudi Arabia   | 1,9                         | 0,7%      |
| 14                    | Taiwan, China  | 1,4                         | 0,5%      |
| 15                    | Others         | 26,6                        | 10,0%     |
| Total (Euro, billion) |                | 265,5                       |           |

# **EU27** imports of FPP (volumes, '000 tonnes)

|                | _               | Import<br>(volumes, '000 |           |
|----------------|-----------------|--------------------------|-----------|
| Rank           | Country         | tonnes)                  | Share (%) |
| 1              | EU 27           | 1647,9                   | 85,4%     |
| 2              | United Kingdom  | 139,7                    | 7,2%      |
| 3              | Switzerland     | 49,2                     | 2,6%      |
| 4              | India           | 24,3                     | 1,3%      |
| 5              | United States   | 16,2                     | 0,8%      |
| 6              | Serbia          | 8,2                      | 0,4%      |
| 7              | Norway          | 7,2                      | 0,4%      |
| 8              | China           | 6,1                      | 0,3%      |
| 9              | Turkey          | 5,4                      | 0,3%      |
| 10             | North Macedonia | 3,1                      | 0,2%      |
| 11             | Singapore       | 3,0                      | 0,2%      |
| 12             | Japan           | 2,6                      | 0,1%      |
| 13             | Mexico          | 2,3                      | 0,1%      |
| 14             | Israel          | 1,5                      | 0,1%      |
| 15             | Others          | 13,3                     | 0,7%      |
| Total (tonnes, | thousand)       | 1930,1                   |           |

# **EU27 exports of FPP (volumes, '000 tonnes)**

| (************************************** |                    |                          |           |
|---|--------------------|--------------------------|-----------|
|   | _                  | Export<br>(volumes, '000 | a. (a)    |
| Rank                                    | Country            | tonnes)                  | Share (%) |
| 1                                       | EU 27              | 1641,7                   | 58,8%     |
| 2                                       | United Kingdom     | 189,7                    | 6,8%      |
| 3                                       | Russian Federation | 131,5                    | 4,7%      |
| 4                                       | United States      | 113,4                    | 4,1%      |
| 5                                       | Switzerland        | 56,7                     | 2,0%      |
| 6                                       | China              | 55,2                     | 2,0%      |
| 7                                       | Turkey             | 33,7                     | 1,2%      |
| 8                                       | Australia          | 27,8                     | 1,0%      |
| 9                                       | South Korea        | 27,5                     | 1,0%      |
| 10                                      | Israel             | 24,6                     | 0,9%      |
| 11                                      | Saudi Arabia       | 21,2                     | 0,8%      |
| 12                                      | South Africa       | 21,1                     | 0,8%      |
| 13                                      | Canada             | 20,7                     | 0,7%      |
| 14                                      | Ukraine            | 20,3                     | 0,7%      |
| 15                                      | Others             | 406,2                    | 14,6%     |
| Total (tonnes, thousand)                |                    | 2791,2                   |           |

# C. EU27 imports and exports of Active Pharmaceutical Ingredients (APIs)

EU27 API imports (values, bln Euro)

|                |               | Import (value, |           |
|----------------|---------------|----------------|-----------|
| Rank           | Country       | bln Euro)      | Share (%) |
| 1              | EU27          | 40,2           | 51,1%     |
| 2              | Switzerland   | 13,6           | 17,2%     |
| 3              | United States | 7,0            | 8,8%      |
| 4              | China         | 6,3            | 8,0%      |
| 5              | Singapore     | 3,7            | 4,7%      |
| 6              | India         | 2,7            | 3,4%      |
| 7              | UK            | 2,1            | 2,6%      |
| 8              | Japan         | 1,3            | 1,7%      |
| 9              | South Korea   | 0,3            | 0,4%      |
| 10             | Norway        | 0,3            | 0,4%      |
| 11             | Argentina     | 0,2            | 0,2%      |
| 12             | Israel        | 0,1            | 0,2%      |
| 13             | Taiwan, China | 0,1            | 0,1%      |
| 14             | Brazil        | 0,1            | 0,1%      |
| 15             | Others        | 0,8            | 1,1%      |
| Total (Euro, b | illion)       | 78,7           |           |

EU27 API exports (values, bln Euro)

| OZ7 API exports (values, bin Euro) |                |                |           |
|------------------------------------|----------------|----------------|-----------|
|                                    |                | Export (value, |           |
| Rank                               | Country        | bln Euro)      | Share (%) |
| 1                                  | EU27           | 40,7           | 53,0%     |
| 2                                  | United States  | 15,4           | 20,1%     |
| 3                                  | Switzerland    | 4,2            | 5,5%      |
| 4                                  | United Kingdom | 2,5            | 3,3%      |
| 5                                  | China          | 1,9            | 2,4%      |
| 6                                  | Canada         | 1,6            | 2,1%      |
| 7                                  | Brazil         | 1,4            | 1,8%      |
| 8                                  | Japan          | 1,3            | 1,7%      |
| 9                                  | Singapore      | 0,7            | 0,9%      |
| 10                                 | India          | 0,7            | 0,9%      |
| 11                                 | Russia         | 0,6            | 0,8%      |
| 12                                 | Australia      | 0,6            | 0,7%      |
| 13                                 | South Korea    | 0,5            | 0,7%      |
| 14                                 | Turkey         | 0,5            | 0,6%      |
| 15                                 | Others         | 4,2            | 5,4%      |
| Total (Euro                        | , billion)     | 76,7           |           |



**EU27 API imports (volumes, '000 tonnes)** 

| EO27 At 1 imports (volumes, ood tollies) |                |                          |           |
|--|----------------|--------------------------|-----------|
|  |                | Import<br>(volumes, '000 |           |
| Rank                                     | Country        | tonnes)                  | Share (%) |
| 1  | EU27           | 1809,8                   | 51,9%     |
| 2  | China          | 785,4                    | 22,5%     |
| 3  | United States  | 202,5                    | 5,8%      |
| 4  | United Kingdom | 145,5                    | 4,2%      |
| 5  | India          | 111,8                    | 3,2%      |
| 6  | Indonesia      | 99,8                     | 2,9%      |
| 7  | South Korea    | 80,5                     | 2,3%      |
| 8  | Argentina      | 79,4                     | 2,3%      |
| 9  | Switzerland    | 53,7                     | 1,5%      |
| 10                                       | Japan          | 26,9                     | 0,8%      |
| 11                                       | Russia         | 23,5                     | 0,7%      |
| 12                                       | Ukraine        | 15,9                     | 0,5%      |
| 13                                       | Brazil         | 11,9                     | 0,3%      |
| 14                                       | Norway         | 8,0                      | 0,2%      |
| 15                                       | Others         | 33,2                     | 1,0%      |
| Total (tonne                             | s, thousand)   | 3487,8                   |           |

# EU27 API exports (volumes, '000 tonnes)

| Rank          | Country        | Export<br>(volumes, '000<br>tonnes) | Share (%) |
|---------------|----------------|-------------------------------------|-----------|
| 1             | EU-27          | 1747,8                              | 62,3%     |
| 2             | United States  | 158,9                               | 5,7%      |
| 3             | United Kingdom | 145,9                               | 5,2%      |
| 4             | China          | 110,1                               | 3,9%      |
| 5             | Switzerland    | 97,9                                | 3,5%      |
| 6             | India          | 52,3                                | 1,9%      |
| 7             | Taiwan, China  | 51,4                                | 1,8%      |
| 8             | Brazil         | 50,4                                | 1,8%      |
| 9             | South Korea    | 42,5                                | 1,5%      |
| 10            | Russia         | 33,7                                | 1,2%      |
| 11            | Turkey         | 32,2                                | 1,1%      |
| 12            | Norway         | 31,0                                | 1,1%      |
| 13            | Japan          | 28,1                                | 1,0%      |
| 14            | Saudi-Arabia   | 16,0                                | 0,6%      |
| 15            | Other          | 206,3                               | 7,4%      |
| Total (tonnes | , thousand)    | 2804,5                              |           |

# D. EU27 imports and exports of vaccines – in values (Euro)

**EU27** imports of vaccines (values, mln Euro)

| Rank           | Country        | Import (value,<br>mln Euro) | Share (%) |
|----------------|----------------|-----------------------------|-----------|
| 1              | EU27           | 10283,7                     | 80,9%     |
| 2              | United States  | 1358,7                      | 10,7%     |
| 3              | United Kingdom | 338,5                       | 2,7%      |
| 4              | Canada         | 88,8                        | 0,7%      |
| 5              | Singapore      | 52,9                        | 0,4%      |
| 6              | Mexico         | 41,4                        | 0,3%      |
| 7              | Australia      | 32,2                        | 0,3%      |
| 8              | Switzerland    | 20,2                        | 0,2%      |
| 9              | South Korea    | 2,8                         | 0,0%      |
| 10             | India          | 1,0                         | 0,0%      |
| 11             | Saudi Arabia   | 0,4                         | 0,0%      |
| 12             | Norway         | 0,2                         | 0,0%      |
| 13             | Japan          | 0,2                         | 0,0%      |
| 14             | China          | 0,1                         | 0,0%      |
| 15             | Others         | 488,6                       | 3,8%      |
| Total (Euro, m | illion)        | 12709,6                     |           |

# EU27 exports of vaccines (values, mln Euro)

|                |                | Export (value, |           |
|----------------|----------------|----------------|-----------|
| Rank           | Country        | mln Euro)      | Share (%) |
| 1              | EU27           | 8815,3         | 41,3%     |
| 2              | United States  | 4983,7         | 23,4%     |
| 3              | United Kingdom | 1960,7         | 9,2%      |
| 4              | China          | 755,6          | 3,5%      |
| 5              | Brazil         | 410,7          | 1,9%      |
| 6              | Turkey         | 313,5          | 1,5%      |
| 7              | India          | 233,7          | 1,1%      |
| 8              | Japan          | 193,9          | 0,9%      |
| 9              | Mexico         | 160,0          | 0,7%      |
| 10             | Australia      | 156,9          | 0,7%      |
| 11             | Canada         | 154,3          | 0,7%      |
| 12             | South Africa   | 144,4          | 0,7%      |
| 13             | Vietnam        | 143,0          | 0,7%      |
| 14             | Pakistan       | 133,6          | 0,6%      |
| 15             | Others         | 2778,6         | 13,0%     |
| Total (Euro, m | illion)        | 21337,8        |           |

# **EU27** imports of vaccines (volumes, tonnes)

| 2027 imports of vaccines (volumes) toimes) |                |                     |           |
|--|----------------|---------------------|-----------|
|  |                | Import<br>(volumes, |           |
|  |                | (volumes,           |           |
| Rank                                       | Country        | tonnes)             | Share (%) |
| 1  | EU27           | 28436,0             | 95,0%     |
| 2  | United States  | 1133,3              | 3,8%      |
| 3  | United Kingdom | 139,8               | 0,5%      |
| 4  | Switzerland    | 52,9                | 0,2%      |
| 5  | Canada         | 52,2                | 0,2%      |
| 6  | Mexico         | 18,3                | 0,1%      |
| 7  | South Korea    | 14,7                | 0,0%      |
| 8  | Australia      | 11,0                | 0,0%      |
| 9  | Singapore      | 7,6                 | 0,0%      |
| 10   | India          | 3,5                 | 0,0%      |
| 11   | Saudi Arabia   | 1,6                 | 0,0%      |
| 12   | China          | 0,9                 | 0,0%      |
| 13   | Norway         | 0,9                 | 0,0%      |
| 14   | Japan          | 0,2                 | 0,0%      |
| 15   | Others         | 72,0                | 0,2%      |
| Total (tonne                               | s)             | 29944,9             |           |

#### **EU27** exports of vaccines (volumes, tonnes)

|               | experts of faccines (volumes) termes, |                     |           |  |
|---------------|---------------------------------------|---------------------|-----------|--|
|               |                                       | Export<br>(volumes, |           |  |
| Rank          | Country                               | tonnes)             | Share (%) |  |
| 1             | EU27                                  | 25227,7             | 70,1%     |  |
| 2             | United Kingdom                        | 1907,6              | 5,3%      |  |
| 3             | United States                         | 1443,9              | 4,0%      |  |
| 4             | China                                 | 663,8               | 1,8%      |  |
| 5             | Brazil                                | 430,2               | 1,2%      |  |
| 6             | Turkey                                | 334,2               | 0,9%      |  |
| 7             | Mexico                                | 306,3               | 0,9%      |  |
| 8             | Pakistan                              | 248,1               | 0,7%      |  |
| 9             | India                                 | 241,5               | 0,7%      |  |
| 10            | Australia                             | 218,0               | 0,6%      |  |
| 11            | Vietnam                               | 207,6               | 0,6%      |  |
| 12            | Argentina                             | 173,5               | 0,5%      |  |
| 13            | Japan                                 | 166,4               | 0,5%      |  |
| 14            | Thailand                              | 157,0               | 0,4%      |  |
| 15            | Others                                | 4242,2              | 11,8%     |  |
| Total (tonnes | )                                     | 35968,0             |           |  |



# E. EU27 imports and exports of antibiotics

# EU27 imports of antibiotics (FPP+API, values, mln Euro) EU27 imports of antibiotics (FPP, values, mln Euro)

|                |                | Import (value, |           |
|----------------|----------------|----------------|-----------|
| Rank           | Country        | min Euro)      | Share (%) |
| 1              | EU27           | 5233,4         | 53,9%     |
| 2              | Switzerland    | 2021,2         | 20,8%     |
| 3              | United States  | 708,3          | 7,3%      |
| 4              | China          | 679,9          | 7,0%      |
| 5              | United Kingdom | 352,1          | 3,6%      |
| 6              | Japan          | 137,5          | 1,4%      |
| 7              | India          | 120,7          | 1,2%      |
| 8              | South Korea    | 82,0           | 0,8%      |
| 9              | Taiwan, China  | 67,8           | 0,7%      |
| 10             | Singapore      | 40,0           | 0,4%      |
| 11             | Turkey         | 18,4           | 0,2%      |
| 12             | Canada         | 13,7           | 0,1%      |
| 13             | Brazil         | 13,4           | 0,1%      |
| 14             | Australia      | 9,4            | 0,1%      |
| 15             | Others         | 218,5          | 2,2%      |
| Total (Euro, r | nillion)       | 9716,1         |           |

|                |                 | Import (value, |           |
|----------------|-----------------|----------------|-----------|
| Rank           | Country         | min Euro)      | Share (%) |
| 1              | EU27            | 3315,0         | 68,0%     |
| 2              | Swtizerland     | 654,6          | 13,4%     |
| 3              | United Kingdom  | 314,9          | 6,5%      |
| 4              | United States   | 258,9          | 5,3%      |
| 5              | Taiwan, China   | 63,5           | 1,3%      |
| 6              | India           | 61,7           | 1,3%      |
| 7              | China           | 41,5           | 0,9%      |
| 8              | Turkey          | 17,8           | 0,4%      |
| 9              | Canada          | 12,7           | 0,3%      |
| 10             | Japan           | 11,2           | 0,2%      |
| 11             | Australia       | 9,4            | 0,2%      |
| 12             | Brazil          | 8,4            | 0,2%      |
| 13             | North Macedonia | 5,0            | 0,1%      |
| 14             | Singapore       | 3,7            | 0,1%      |
| 15             | Others          | 99,5           | 2,0%      |
| Total (Euro, m | nillion)        | 4877,7         |           |

# EU27 imports of antibiotics (API, values, mln Euro)

|                |                  | Import (value, |           |  |
|----------------|------------------|----------------|-----------|--|
| Rank           | Country          | mln Euro)      | Share (%) |  |
| 1              | EU27             | 1918,4         | 39,6%     |  |
| 2              | Switzerland      | 1366,5         | 28,2%     |  |
| 3              | China            | 638,4          | 13,2%     |  |
| 4              | United States    | 449,3          | 9,3%      |  |
| 5              | Japan            | 126,3          | 2,6%      |  |
| 6              | South Korea      | 81,1           | 1,7%      |  |
| 7              | India            | 58,9           | 1,2%      |  |
| 8              | United Kingdom   | 37,2           | 0,8%      |  |
| 9              | Singapore        | 36,3           | 0,7%      |  |
| 10             | Macao, China     | 8,7            | 0,2%      |  |
| 11             | Hong Kong, China | 7,5            | 0,2%      |  |
| 12             | New Zealand      | 6,3            | 0,1%      |  |
| 13             | Israel           | 5,0            | 0,1%      |  |
| 14             | Brazil           | 5,0            | 0,1%      |  |
| 15             | Others           | 93,3           | 1,9%      |  |
| Total (Euro, m | nillion)         | 4838,4         |           |  |

# EU27 exports of antibiotics (FPP+API, values, mln Euro) EU27 exports of antibiotics (FPP, values, mln Euro)

| -            |                | T              |           |
|--------------|----------------|----------------|-----------|
|              |                | Export (value, |           |
| Rank         | Country        | mln Euro)      | Share (%) |
| 1            | EU27           | 5312,5         | 45,0%     |
| 2            | Switzerland    | 1533,2         | 13,0%     |
| 3            | United States  | 786,6          | 6,7%      |
| 4            | China          | 555,9          | 4,7%      |
| 5            | Russia         | 478,5          | 4,0%      |
| 6            | United Kingdom | 431,4          | 3,7%      |
| 7            | Brazil         | 173,4          | 1,5%      |
| 8            | Canada         | 151,6          | 1,3%      |
| 9            | Japan          | 145,7          | 1,2%      |
| 10           | India          | 137,7          | 1,2%      |
| 11           | Vietnam        | 126,2          | 1,1%      |
| 12           | Saudi Arabia   | 120,3          | 1,0%      |
| 13           | Egypt          | 95,4           | 0,8%      |
| 14           | Australia      | 89,4           | 0,8%      |
| 15           | Others         | 1680,1         | 14,2%     |
| Total (Euro, | million)       | 11818,0        |           |

|                |                | Export (value, |           |
|----------------|----------------|----------------|-----------|
| Rank           | Country        | min Euro)      | Share (%) |
| 1              | EU27           | 3530,7         | 40,0%     |
| 2              | Switzerland    | 1282,8         | 14,5%     |
| 3              | United States  | 600,1          | 6,8%      |
| 4              | Russia         | 456,4          | 5,2%      |
| 5              | China          | 430,1          | 4,9%      |
| 6              | United Kingdom | 386,3          | 4,4%      |
| 7              | Vietnam        | 117,2          | 1,3%      |
| 8              | Brazil         | 111,9          | 1,3%      |
| 9              | Saudi Arabia   | 110,7          | 1,3%      |
| 10             | Japan          | 106,1          | 1,2%      |
| 11             | Canada         | 100,7          | 1,1%      |
| 12             | South Africa   | 80,3           | 0,9%      |
| 13             | Algeria        | 76,1           | 0,9%      |
| 14             | Egypt          | 71,2           | 0,8%      |
| 15             | Others         | 1376,3         | 15,6%     |
| Total (Euro, m | illion)        | 8837,2         |           |

EU27 exports of antibiotics (API, values, mln Euro)

25



|                |                | Export (value, |           |
|----------------|----------------|----------------|-----------|
| Rank           | Country        | mln Euro)      | Share (%) |
| 1              | EU27           | 1781,8         | 59,8%     |
| 2              | Switzerland    | 250,4          | 8,4%      |
| 3              | United States  | 186,5          | 6,3%      |
| 4              | China          | 125,7          | 4,2%      |
| 5              | India          | 103,4          | 3,5%      |
| 6              | Brazil         | 61,5           | 2,1%      |
| 7              | Canada         | 50,9           | 1,7%      |
| 8              | United Kingdom | 45,1           | 1,5%      |
| 9              | Australia      | 39,8           | 1,3%      |
| 10             | Japan          | 39,6           | 1,3%      |
| 11             | Turkey         | 35,6           | 1,2%      |
| 12             | South Korea    | 25,5           | 0,9%      |
| 13             | Egypt          | 24,1           | 0,8%      |
| 14             | Russia         | 22,1           | 0,7%      |
| 15             | Others         | 188,7          | 6,3%      |
| Total (Euro, n | nillion)       | 2980,8         |           |

# EU27 imports of antibiotics (FPP+API, volumes, tonnes) EU27 imports of antibiotics (FPP, volumes, tonnes)

| EOZ7 illiports of alltiblotics (FFF+AFI, volulles, t |                 |                                |           |
|--|-----------------|--------------------------------|-----------|
| Rank   | Country         | Import<br>(volumes,<br>tonnes) | Share (%) |
| 1  | EU27            | 84344,3                        |           |
|  | _               |                                | 74,7%     |
| 2  | China           | 11602,3                        | 10,3%     |
| 3  | United Kingdom  | 4721,7                         | 4,2%      |
| 4  | United States   | 2909,4                         | 2,6%      |
| 5  | Switzerland     | 2284,7                         | 2,0%      |
| 6  | India           | 1477,5                         | 1,3%      |
| 7  | Singapore       | 683,9                          | 0,6%      |
| 8  | Japan           | 418,2                          | 0,4%      |
| 9  | Turkey          | 413,1                          | 0,4%      |
| 10   | South Korea     | 285,9                          | 0,3%      |
| 11   | Norway          | 236,1                          | 0,2%      |
| 12   | New Zealand     | 160,6                          | 0,1%      |
| 13   | North Macedonia | 118,2                          | 0,1%      |
| 14   | Brazil          | 115,7                          | 0,1%      |
| 15   | Others          | 3198,5                         | 2,8%      |
| Total (tonn  | es)             | 112970,1                       |           |

| EOZ7 imports of antibiotics (FPP, volumes, tonne |                 |                                |           |
|--|-----------------|--------------------------------|-----------|
| Rank   | Country         | Import<br>(volumes,<br>tonnes) | Share (%) |
| 1  | EU27            | 66467,9                        | 85,2%     |
| 2  | United Kingdom  | 4346,1                         | 5,6%      |
| 3  | China           | 2027,7                         | 2,6%      |
| 4  | Switzerland     | 1950,4                         | 2,5%      |
| 5  | India           | 1186,6                         | 1,5%      |
| 6  | United States   | 489,6                          | 0,6%      |
| 7  | Turkey          | 406,7                          | 0,5%      |
| 8  | Norway          | 236,0                          | 0,3%      |
| 9  | North Macedonia | 118,2                          | 0,2%      |
| 10   | Brazil          | 107,2                          | 0,1%      |
| 11   | Canada          | 88,0                           | 0,1%      |
| 12   | Montenegro      | 55,6                           | 0,1%      |
| 13   | Japan           | 53,4                           | 0,1%      |
| 14   | Australia       | 40,9                           | 0,1%      |
| 15   | Others          | 471,7                          | 0,6%      |
| Total (tonn                                      | es)             | 78046,0                        |           |

# EU27 imports of antibiotics (API, volumes, tonnes)

|               |                  | Import<br>(volumes, |           |
|---------------|------------------|---------------------|-----------|
| Rank          | Country          | tonnes)             | Share (%) |
| 1             | EU27             | 17876,4             | 51,2%     |
| 2             | China            | 9574,6              | 27,4%     |
| 3             | United States    | 2419,8              | 6,9%      |
| 4             | Singapore        | 682,5               | 2,0%      |
| 5             | United Kingdom   | 375,6               | 1,1%      |
| 6             | Japan            | 364,8               | 1,0%      |
| 7             | Switzerland      | 334,3               | 1,0%      |
| 8             | India            | 290,9               | 0,8%      |
| 9             | South Korea      | 281,7               | 0,8%      |
| 10            | New Zealand      | 129,4               | 0,4%      |
| 11            | Hong Kong, China | 109,5               | 0,3%      |
| 12            | Macao, China     | 29,6                | 0,1%      |
| 13            | Malaysia         | 13,4                | 0,0%      |
| 14            | Brazil           | 8,5                 | 0,0%      |
| 15            | Others           | 2433,1              | 7,0%      |
| Total (tonnes | )                | 34924,1             |           |



# EU27 exports of antibiotics (FPP+API, volumes, tonnes) EU27 exports of antibiotics (FPP, volumes, tonnes)

|               |                | Export<br>(volumes, |           |
|---------------|----------------|---------------------|-----------|
| Rank          | Country        | tonnes)             | Share (%) |
| 1             | EU27           | 87142,8             | 53,3%     |
| 2             | United States  | 9801,1              | 6,0%      |
| 3             | Russia         | 6837,7              | 4,2%      |
| 4             | United Kingdom | 6548,2              | 4,0%      |
| 5             | China          | 4514,2              | 2,8%      |
| 6             | Switzerland    | 4103,1              | 2,5%      |
| 7             | Vietnam        | 3130,6              | 1,9%      |
| 8             | Brazil         | 2255,2              | 1,4%      |
| 9             | Iraq           | 1850,0              | 1,1%      |
| 10            | Canada         | 1800,5              | 1,1%      |
| 11            | Saudi Arabia   | 1391,6              | 0,9%      |
| 12            | Algeria        | 1389,7              | 0,9%      |
| 13            | South Africa   | 1379,0              | 0,8%      |
| 14            | Egypt          | 1369,7              | 0,8%      |
| 15            | Others         | 29907,5             | 18,3%     |
| Total (tonnes |                | 163420,9            |           |

|               |                | Export (volumes, |           |
|---------------|----------------|------------------|-----------|
| Rank          | Country        | tonnes)          | Share (%) |
| 1             | EU27           | 69427,0          | 50,5%     |
| 2             | United States  | 9267,9           | 6,7%      |
| 3             | Russia         | 6594,8           | 4,8%      |
| 4             | United Kingdom | 6330,6           | 4,6%      |
| 5             | Switzerland    | 3502,6           | 2,5%      |
| 6             | Vietnam        | 2977,0           | 2,2%      |
| 7             | China          | 2630,5           | 1,9%      |
| 8             | Brazil         | 1880,3           | 1,4%      |
| 9             | Iraq           | 1803,3           | 1,3%      |
| 10            | South Africa   | 1339,3           | 1,0%      |
| 11            | Algeria        | 1327,1           | 1,0%      |
| 12            | Australia      | 1295,5           | 0,9%      |
| 13            | Saudi Arabia   | 1287,5           | 0,9%      |
| 14            | Canada         | 1267,9           | 0,9%      |
| 15            | Others         | 26538,8          | 19,3%     |
| Total (tonnes | 3)             | 137470,1         |           |

# EU27 exports of antibiotics (API, volumes, tonnes)

| Rank         | Country        | Export<br>(volumes,<br>tonnes) | Share (%) |
|--------------|----------------|--------------------------------|-----------|
| 1            | EU27           | 17715,8                        | 68,3%     |
| 2            | China          | 1883,7                         | 7,3%      |
| 3            | Switzerland    | 600,5                          | 2,3%      |
| 4            | United States  | 533,2                          | 2,1%      |
| 5            | Canada         | 532,6                          | 2,1%      |
| 6            | Brazil         | 374,9                          | 1,4%      |
| 7            | Russia         | 242,9                          | 0,9%      |
| 8            | India          | 226,2                          | 0,9%      |
| 9            | United Kingdom | 217,6                          | 0,8%      |
| 10           | Vietnam        | 153,6                          | 0,6%      |
| 11           | Turkey         | 139,3                          | 0,5%      |
| 12           | Egypt          | 122,4                          | 0,5%      |
| 13           | Saudi Arabia   | 104,1                          | 0,4%      |
| 14           | South Korea    | 89,3                           | 0,3%      |
| 15           | Others         | 3014,7                         | 11,6%     |
| Total (tonne | s)             | 25950,8                        |           |

# F. EU27 imports and exports of semi-finished products (SFP)

**EU27** imports of SFP (values, mln Euro)

| EO27 imports of SFP (values, min Euro) |                |                |           |
|--|----------------|----------------|-----------|
|  |                | Import (value, | a. (a.)   |
| Rank                                   | Country        | mln Euro)      | Share (%) |
| 1                                      | EU27           | 8022,6         | 46,0%     |
| 2                                      | Israel         | 3227,6         | 18,5%     |
| 3                                      | United States  | 2374,4         | 13,6%     |
| 4                                      | South Korea    | 1821,5         | 10,4%     |
| 5                                      | Switzerland    | 994,5          | 5,7%      |
| 6                                      | United Kingdom | 263,3          | 1,5%      |
| 7                                      | Singapore      | 250,8          | 1,4%      |
| 8                                      | Japan          | 150,3          | 0,9%      |
| 9                                      | India          | 87,2           | 0,5%      |
| 10                                     | Canada         | 59,3           | 0,3%      |
| 11                                     | China          | 39,8           | 0,2%      |
| 12                                     | Australia      | 14,3           | 0,1%      |
| 13                                     | Taiwan, China  | 5,0            | 0,0%      |
| 14                                     | Turkey         | 4,8            | 0,0%      |
| 15                                     | Others         | 133,0          | 0,8%      |
| Total (Euro,                           | million)       | 17448,3        |           |

EU27 exports of SFP (values, mln Euro)

| to 27 exports of SFP (values, min Euro) |                |                                       |           |
|---|----------------|---------------------------------------|-----------|
| Rank                                    | Country        | Export (value,<br>min Euro)           | Share (%) |
|   | •              | · · · · · · · · · · · · · · · · · · · |           |
| 1                                       | EU27           | 5192,7                                | 35,9%     |
| 2                                       | United States  | 3942,4                                | 27,3%     |
| 3                                       | United Kingdom | 3614,6                                | 25,0%     |
| 4                                       | Switzerland    | 730,6                                 | 5,1%      |
| 5                                       | Russia         | 233,6                                 | 1,6%      |
| 6                                       | China          | 98,0                                  | 0,7%      |
| 7                                       | Algeria        | 81,3                                  | 0,6%      |
| 8                                       | South Korea    | 77,2                                  | 0,5%      |
| 9                                       | Japan          | 65,3                                  | 0,5%      |
| 10                                      | Singapore      | 52,0                                  | 0,4%      |
| 11                                      | Iran           | 47,0                                  | 0,3%      |
| 12                                      | Mexico         | 38,2                                  | 0,3%      |
| 13                                      | Turkey         | 37,9                                  | 0,3%      |
| 14                                      | Canada         | 29,8                                  | 0,2%      |
| 15                                      | Others         | 206,0                                 | 1,4%      |
| Total (Euro,                            | million)       | 14446,6                               |           |



# **EU27** imports of SFP (volumes, tonnes)

|             |                | Import<br>(volumes, |           |
|-------------|----------------|---------------------|-----------|
| Rank        | Country        | tonnes)             | Share (%) |
| 1           | EU27           | 61418,1             | 85,0%     |
| 2           | India          | 3382,6              | 4,7%      |
| 3           | United States  | 2098,0              | 2,9%      |
| 4           | United Kingdom | 1835,0              | 2,5%      |
| 5           | China          | 1537,5              | 2,1%      |
| 6           | Switzerland    | 939,4               | 1,3%      |
| 7           | Turkey         | 329,9               | 0,5%      |
| 8           | Australia      | 147,3               | 0,2%      |
| 9           | Canada         | 126,6               | 0,2%      |
| 10          | Japan          | 122,7               | 0,2%      |
| 11          | Norway         | 83,2                | 0,1%      |
| 12          | South Korea    | 70,5                | 0,1%      |
| 13          | Cyprus         | 44,4                | 0,1%      |
| 14          | Brazil         | 40,4                | 0,1%      |
| 15          | Others         | 122,4               | 0,2%      |
| Total (tonn | es)            | 72298,0             |           |

# **EU27** exports of SFP (volumes, tonnes)

| <u> </u>       |                |                     |           |
|----------------|----------------|---------------------|-----------|
| Rank           | C              | Export<br>(volumes, | Ch (0/)   |
| Kank           | Country        | tonnes)             | Share (%) |
| 1              | EU27           | 93778,9             | 76,7%     |
| 2              | United Kingdom | 13879,0             | 11,3%     |
| 3              | South Korea    | 1768,9              | 1,4%      |
| 4              | Switzerland    | 1379,3              | 1,1%      |
| 5              | Russia         | 1194,7              | 1,0%      |
| 6              | United States  | 982,9               | 0,8%      |
| 7              | China          | 745,5               | 0,6%      |
| 8              | Algeria        | 731,5               | 0,6%      |
| 9              | Bangladesh     | 576,6               | 0,5%      |
| 10             | Mexico         | 513,4               | 0,4%      |
| 11             | Turkey         | 475,1               | 0,4%      |
| 12             | Japan          | 468,4               | 0,4%      |
| 13             | Brazil         | 455,8               | 0,4%      |
| 14             | Egypt          | 453,2               | 0,4%      |
| 15             | Others         | 4934,3              | 4,0%      |
| Total (tonnes) |                | 122337,5            |           |



# Annex 2: Methodology

These numbers are based on a detailed extraction from the Eurostat database at 6- and 8-digit levels for 2019<sup>2</sup> as well as the United Nations Comtrade Database.<sup>3</sup>

We distinguish the following categories:

- All pharmaceutical products:
  - Human Medicinal Products (HMP)
    - Finished Pharmaceutical Products (FPP)
    - Vaccines
  - Finished Pharmaceutical Products (FPP)
    - Finished Pharmaceutical Products
    - Antibiotics Finished Pharmaceutical Products
  - Active Pharmaceutical Ingredients
    - Active Pharmaceutical Ingredients
    - Antibiotics Active Pharmaceutical Ingredients
  - Vaccines
  - Antibiotics
    - Antibiotics Finished Pharmaceutical Products
    - Antibiotics Active Pharmaceutical Ingredients
  - Semi-Finished Products (SFP)

#### All pharmaceutical products

Are defined as the total sum of all finished pharmaceutical products, active pharmaceutical ingredients (both overall APIs and antibiotics APIs), vaccines and semi-finished products.

#### **Human Medicinal Products (HMP)**

Are defined as the sum of all finished pharmaceutical products and vaccines together – all pharmaceutical products for human use.

#### Finished Pharmaceutical Products (Chapter 30)

For finished pharmaceutical products (FPP), we have looked at Chapter 30 of the World Customs Organization's Harmonized System (HS) upon which the EU's Combined Nomenclature (CN) is based. Looking at the codes in Chapter 30, some contain API rather than finished products. For example:

- Code 3001 contains API such as heparins and salts, which are not final products but API so it is classified as API.
- Under 3002, the majority of products are vaccines, but not all. 300213 are API (monoclonal antibodies); 300214 are semi-finished products; 300215 are finished products (in Chapter 30), while 300290 are cell cultures, micro-organisms, toxins, etc. which are raw materials and API.

We also distinguish between FPPs (based on the selected parts of Chapter 30) and antibiotic FPPs (EU CN codes (300410 and 300420).

#### Vaccines (Chapter 30)

Vaccines are covered in CN code 300220 (Vaccines for Human Medicine). The rest of code 3002 falls in part under API, semi-finished and finished pharmaceutical products.

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https://ec.europa.eu/eurostat/data/database

https://comtrade.un.org/data/



#### **Active Pharmaceutical Ingredients (APIs)**

The API were estimated using a combination of the EU CN codes, combined and cross-checked with import end-use pharmaceutical codes (40100) and US NAICS codes 3245 or 325199. This allowed us to filter the detailed Chapter 29 HS codes to distinguish between various uses of the APIs. It would not be correct to include APIs used for manufacturing or agriculture, as that would overestimate the trade effects and could distort the bilateral trade flow picture. For example:

- 290381 1,2,3,4,5,6, Hexachlorocyclohexane (HCH (ISO)), including lindane (ISO, INN) are pesticides, not used in pharmaceuticals.
- 291040 Dieldrin (ISO, INN) are insecticides, not used in pharmaceuticals.
- 293070 Bis(2-hydroxyethyl) sulphide (thiodiglycol (INN)) is for non-medical use.
- 293361 Melamine, is for non-medical use.

We also distinguish between selected general APIs (based on the EU CN, end-use pharmaceutical codes (40100) and US NAICS codes 3245 or 325199) and antibiotics APIs (from EU CN codes 294120 – 294190).

#### **Antibiotics**

Antibiotics are measured separately and split into finished pharmaceutical products (FPP) antibiotics – covered from CN code 300410 and 300420. The active pharmaceutical ingredient (API) antibiotics are captured under CN codes 294110 until 294190 (penicillins, streptomycins, erythromycin, etc.).

# **Semi-finished products**

Semi-finished products are neither final products nor APIs. We have classified them separately, based on EU CN codes 300214, 300310, 300320, 300331, 300339, 300341, 300342, 300343, 300349, 300360, and 300390). This split out ensures the data for FPP and API are not impacted by 'in between types of products'.



# Annex 3: EU CN Codes Product List

# **Human Medicinal Products (HMPs)**

| Pharmaceutical   | CN     | Name  |
|------------------|--------|---|
| Category         | Code   |   |
|                  | 300215 | Immunological products, put up in measured doses or in forms or packings for retail sale  |
|                  | 300431 | Medicaments containing insulin but not antibiotics, put up in measured doses "incl. those for   |
|                  |        | transdermal administration" or in forms or packings for retail sale   |
|                  | 300432 | Medicaments containing corticosteroid hormones, their derivatives or structural analogues but not antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale  |
|                  | 300439 | Medicaments containing hormones or steroids used as hormones but not antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. medicaments containing insulin or corticosteroid hormones, their derivatives or structural analogues)  |
|                  | 300441 | Medicaments containing ephedrine or its salts, not containing hormones, steroids used as hormones or antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale   |
|                  | 300442 | Medicaments containing pseudoephedrine (INN) or its salts, not containing hormones, steroids used as hormones or antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale   |
| FPPs             | 300443 | Medicaments containing norephedrine or its salts, not containing hormones, steroids used as hormones or antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale  |
|                  | 300449 | Medicaments containing alkaloids or derivatives thereof, not containing hormones, steroids used as hormones or antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. containing ephedrine, pseudoephedrine (INN), norephedrine or their salts)  |
|                  | 300450 | Medicaments containing provitamins, vitamins, incl. natural concentrates and derivatives thereof used primarily as vitamins, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. containing antibiotics, hormones, alkaloids, or their derivatives)  |
|                  | 300460 | Medicaments containing any of the following antimalarial active principles: artemisinin (INN) for oral ingestion combined with other pharmaceutical active ingredients, or amodiaquine (INN); artelinic acid or its salts; artenimol (INN); artemotil (INN); artemether (INN); artesunate (INN); chloroquine (INN); dihydroartemisinin (INN); lumefantrine (INN); mefloquine (INN); piperaquine (INN); pyrimethamine (INN) or sulfadoxine (INN), put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. containing antibiotics, hormones, alkaloids, provitamins, vitamins, or their derivatives) |
|                  | 300490 | Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. containing antibiotics, hormones or steroids used as hormones, alkaloids, provitamins, vitamins, their derivatives or antimalarial active principles)  |
| Antibiotics FPPs | 300410 | Medicaments containing penicillins or derivatives thereof with a penicillanic acid structure, or streptomycins or derivatives thereof, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale  |
| Antibiotics PPPS | 300420 | Medicaments containing antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. medicaments containing penicillins or derivatives thereof with a penicillanic structure, or streptomycines or derivatives thereof)   |
| Vaccines         | 300220 | Vaccines for human medicine   |



# **Finished Pharmaceutical Products (FPPs)**

| Pharmaceutical    | CN          | <u>Name</u>   |
|-------------------|-------------|---|
| <u>Category</u>   | <u>Code</u> |   |
|                   | 300215      | Immunological products, put up in measured doses or in forms or packings for retail sale  |
|                   | 300431      | Medicaments containing insulin but not antibiotics, put up in measured doses "incl. those for   |
|                   |             | transdermal administration" or in forms or packings for retail sale   |
|                   | 300432      | Medicaments containing corticosteroid hormones, their derivatives or structural analogues but not antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale  |
| 3004              |             | Medicaments containing hormones or steroids used as hormones but not antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. medicaments containing insulin or corticosteroid hormones, their derivatives or structural analogues)  |
|                   | 300441      | Medicaments containing ephedrine or its salts, not containing hormones, steroids used as hormones or antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale   |
|                   | 300442      | Medicaments containing pseudoephedrine (INN) or its salts, not containing hormones, steroids used as hormones or antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale   |
| FPPs              | 300443      | Medicaments containing norephedrine or its salts, not containing hormones, steroids used as hormones or antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale  |
| FPPS              | 300449      | Medicaments containing alkaloids or derivatives thereof, not containing hormones, steroids used as hormones or antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. containing ephedrine, pseudoephedrine (INN), norephedrine or their salts)  |
|                   | 300450      | Medicaments containing provitamins, vitamins, incl. natural concentrates and derivatives thereof used primarily as vitamins, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. containing antibiotics, hormones, alkaloids, or their derivatives)  |
|                   | 300460      | Medicaments containing any of the following antimalarial active principles: artemisinin (INN) for oral ingestion combined with other pharmaceutical active ingredients, or amodiaquine (INN); artelinic acid or its salts; artenimol (INN); artemotil (INN); artemether (INN); artesunate (INN); chloroquine (INN); dihydroartemisinin (INN); lumefantrine (INN); mefloquine (INN); piperaquine (INN); pyrimethamine (INN) or sulfadoxine (INN), put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. containing antibiotics, hormones, alkaloids, provitamins, vitamins, or their derivatives) |
|                   | 300490      | Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. containing antibiotics, hormones or steroids used as hormones, alkaloids, provitamins, vitamins, their derivatives or antimalarial active principles)  |
|                   |             | Medicaments containing penicillins or derivatives thereof with a penicillanic acid structure, or  |
| Antibiotics FPPs  | 300410      | streptomycins or derivatives thereof, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale   |
| AIILIDIOLICS FFFS | 300420      | Medicaments containing antibiotics, put up in measured doses "incl. those for transdermal administration" or in forms or packings for retail sale (excl. medicaments containing penicillins or derivatives thereof)   |

# Vaccines

|   | Pharmaceutical<br>Category | <u>CN</u><br><u>Code</u> | <u>Name</u>                 |
|---|----------------------------|--------------------------|-----------------------------|
| Ī | Vaccines                   | 300220                   | Vaccines for human medicine |



# **Antibiotics FPPs**

| <u>Pharmaceutical</u> | CN          | <u>Name</u>  |
|-----------------------|-------------|--|
| <u>Category</u>       | <u>Code</u> |  |
|                       |             | Medicaments containing penicillins or derivatives thereof with a penicillanic acid structure, or     |
|                       |             | streptomycins or derivatives thereof, put up in measured doses "incl. those for transdermal          |
| Antibiotics FDDs      | 300410      | administration" or in forms or packings for retail sale  |
| Antibiotics FPPs      |             | Medicaments containing antibiotics, put up in measured doses "incl. those for transdermal            |
|                       |             | administration" or in forms or packings for retail sale (excl. medicaments containing penicillins or |
|                       | 300420      | derivatives thereof with a penicillanic structure, or streptomycines or derivatives thereof)         |

# **Active Pharmaceutical Ingredients (APIs)**

| Pharmaceutical Category | <u>CN</u><br>Code | <u>Name</u>  |
|-------------------------|-------------------|--|
| <u>category</u>         | 291462            | Coenzyme Q10 "ubidecarenone (INN)"   |
|                         | 291469            | Quinones (excl. anthraquinone and coenzyme Q10 "ubidecarenone (INN)")  |
|                         | 291639            | Aromatic monocarboxylic acids, their anhydrides, halides, peroxides, peroxyacids and their   |
|                         |                   | halogenated, sulphonated, nitrated or nitrosated derivatives (excl. benzoic acid, its salts and esters,  |
|                         |                   | benzoyl peroxide, benzoyl chloride, phenylacetic acid and its salts, and inorganic or organic  |
|                         |                   | compounds of mercury whether or not chemically defined)  |
|                         | 291821            | Salicylic Acid And Its Salts   |
|                         | 291822            | o-Acetylsalicylic acid, its salts and esters   |
|                         | 291823            | Esters of salicylic acid and their salts (excl. o-acetylsalicylic acid, its salts and esters)  |
|                         | 291899            | Carboxylic acids with additional oxygen function and their anhydrides, halides, peroxides and  |
|                         |                   | peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives (excl. only with   |
|                         |                   | alcohol, phenol, aldehyde or ketone function, and 2,4,5-T (ISO) [2,4,5-trichlorophenoxyacetic acid]  |
|                         |                   | and its salts and esters)  |
|                         | 292146            | Amfetamine (INN), benzfetamine (INN), dexamfetamine (INN), etilamfetamine (INN), fencamfamine  |
|                         |                   | (INN), lefetamine (INN), levamfetamine (INN), mefenorex (INN) and phentermine (INN), and salts   |
|                         | 2024.40           | thereof  |
|                         | 292149            | Aromatic monoamines and derivatives; salts thereof (excl. aniline, toluidines, diphenylamine, 1-   |
|                         |                   | naphthylamine "alpha-naphthylamine", 2-naphthylamine "beta-naphthylamine" and their derivatives, and salts thereof, and amfetamine (INN), benzfetamine (INN), dexamfetamine (INN), |
|                         |                   | etilamfetamine (INN), fencamfamine (INN), lefetamine (INN), levamfetamine (INN), mefenorex (INN)   |
|                         |                   | and phentermine (INN), and salts thereof)  |
|                         | 292214            | Dextropropoxyphene (INN) and its salts   |
|                         | 292219            | Amino-alcohols, their ethers and esters; salts thereof (other than those containing > one kind of  |
| APIs                    |                   | oxygen function and excl. monoethanolamine, diethanolamine, dextropropoxyphene (INN), their  |
| 7.1.10                  |                   | salts, triethanolamine, diethanolammonium perfluorooctane sulphonate, methyldiethanolamine,  |
|                         |                   | ethyldiethanolamine and 2-(N,N-Diisopropylamino)ethanol)   |
|                         | 292229            | Amino-naphthols and other amino-phenols, their ethers and esters; salts thereof (excl. those   |
|                         |                   | containing > one kind of oxygen function; aminohydroxynaphthalenesulphonic acids and their salts)  |
|                         | 292231            | Amfepramone (INN), methadone (INN) and normethadone (INN), and salts thereof   |
|                         | 292241            | Lysine and its esters; salts thereof   |
|                         | 292244            | Tilidine (INN) and its salts   |
|                         | 292249            | Amino-acids and their esters; salts thereof (excl. those with > one kind of oxygen function, lysine and  |
|                         |                   | its esters, and salts thereof, and glutamic acid, anthranilic acid, tilidine (INN), and salts thereof)   |
|                         | 292250            | Amino-alcohol-phenols, amino-acid-phenols and other amino-compounds with oxygen function   |
|                         |                   | (excl. amino-alcohols, amino-naphthols and other amino-phenols, their ethers and esters and salts  |
|                         |                   | thereof, amino-aldehydes, amino-ketones and amino-quinones, and salts thereof, amino-acids and their esters and salts thereof)   |
|                         | 292320            | Lecithins and other phosphoaminolipids, whether or not chemically defined  |
|                         | 292320            | Meprobamate (INN)  |
|                         | 292411            | Ethinamate (INN)   |
|                         | 292424            | Cyclic amides, incl. cyclic carbamates, and their derivatives; salts thereof (excl. ureines and their  |
|                         | 232423            | derivatives, salts thereof, 2-acetamidobenzoic acid "N-acetylanthranilic acid" and its salts,  |
|                         |                   | ethinamate (INN) and alachlor (ISO))   |
|                         | 292512            | Glutethimide (INN)   |
|                         | 292529            | Imines and their derivatives; salts thereof (excl. chlordimeform (ISO))  |
|                         | 292630            | Fenproporex (INN) and its salts; methadone (INN)-intermediate "4-cyano-2-dimethylamino-4,4-  |
|                         |                   | diphenylbutane"  |



| Pharmaceutical | CN               | Name  |
|----------------|------------------|---|
| Category       | <u>Code</u>      | <u>Nume</u>   |
|                | 293190           | Separate chemically defined organo-inorganic compounds (excl. organo-sulphur, mercury,  |
|                | 293220           | tetramethyl lead, tetraethyl lead and tributyltin compounds, and organo-phosphorous derivatives)  Lactones  |
|                | 293321           | Phenazone "antipyrin" and its derivatives   |
|                | 293319           | Heterocyclic compounds with nitrogen hetero-atom[s] only, containing an unfused pyrazole ring,  |
|                |                  | whether or not hydrogenated, in the structure (excl. phenazone "antipyrin" and its derivatives)   |
|                | 293321           | Hydantoin and its derivatives   |
|                | 293329           | Heterocyclic compounds with nitrogen hetero-atom[s] only, containing an unfused imidazole ring, whether or not hydrogenated, in the structure (excl. hydantoin and its derivatives, and products of subheading 3002 10)   |
|                | 293331           | Pyridine and its salts  |
|                | 293332           | Piperidine and its salts  |
|                | 293333           | Alfentanil (INN), anileridine (INN), bezitramide (INN), bromazepam (INN), difenoxin (INN), diphenoxylate (INN), dipipanone (INN), fentanyl (INN), ketobemidone (INN), methylphenidate (INN), pentazocine (INN), pethidine (INN), pethidine (INN) intermediate A, phencyclidine (INN) "PCP", phenoperidine (INN), pipradol (INN), piritramide (INN), propiram (INN) and trimeperidine (INN), and salts thereof   |
|                | 293339           | Heterocyclic compounds with nitrogen hetero-atom[s] only, containing an unfused pyridine ring, whether or not hydrogenated, in the structure (excl. pyridine, piperidine, alfentanil (INN), anileridine (INN), bezitramide (INN), bromazepam (INN), difenoxin (INN), diphenoxylate (INN), dipipanone (INN), fentanyl (INN), ketobemidone (INN), methylphenidate (INN), pentazocine (INN), pethidine (INN), pethidine (INN) intermediate A, phencyclidine (INN) "PCP", phenoperidine (INN), piritramide (INN), propiram (INN), trimeperidine (INN), and salts thereof, and inorganic or organic compounds of mercury)  |
|                | 293341           | Levorphanol (INN) and its salts   |
|                | 293349           | Heterocyclic compounds with nitrogen hetero-atom[s] only, containing in the structure a quinoline or isoquinoline ring-system, whether or not hydrogenated, but not further fused (excl. levorphanol (INN) and its salts, and inorganic or organic compounds of mercury)  |
|                | 293352           | Malonylurea "barbituric acid" and its salts   |
|                | 293353           | Allobarbital (INN), amobarbital (INN), barbital (INN), butalbital (INN), butobarbital (INN), cyclobarbital (INN), methylphenobarbital (INN), pentobarbital (INN), phenobarbital (INN), secobarbital (INN) and vinylbital (INN), and salts thereof   |
|                | 293354           | Derivatives of malonylurea "barbituric acid" and salts thereof (excl. salts of malonylurea)   |
|                | 293355<br>293359 | Loprazolam (INN), mecloqualone (INN), methaqualone (INN) and zipeprol (INN), and salts thereof  Heterocyclic compounds with nitrogen hetero-atom[s] only, containing a pyrimidine ring, whether or not hydrogenated, or piperazine ring in the structure (excl. malonylurea "barbituric acid" and its derivatives, allobarbital (INN), amobarbital (INN), barbital (INN), butalbital (INN), butobarbital (INN), cyclobarbital (INN), methylphenobarbital (INN), pentobarbital (INN), phenobarbital (INN), secbutabarbital (INN), secobarbital (INN), vinylbital (INN), loprazolam (INN), mecloqualone (INN), methaqualone (INN) and zipeprol (INN), and salts thereof)  |
|                | 293369           | Heterocyclic compounds with nitrogen hetero-atom[s] only, containing an unfused triazine ring, whether or not hydrogenated, in the structure (excl. melamine)   |
|                | 293371           | 6-Hexanelactam "epsilon-caprolactam"  |
|                | 293372           | Clobazam (INN) and methyprylon (INN)  |
|                | 293379           | Lactams (excl. 6-hexanelactam "epsilon-caprolactam", clobazam (INN), methyprylon (INN), and inorganic or organic compounds of mercury)  |
|                | 293391           | Alprazolam (INN), camazepam (INN), chlordiazepoxide (INN), clonazepam (INN), clorazepate, delorazepam (INN), diazepam (INN), estazolam (INN), ethyl loflazepate (INN), fludiazepam (INN), flunitrazepam (INN), flurazepam (INN), halazepam (INN), lorazepam (INN), lormetazepam (INN), mazindol (INN), medazepam (INN), midazolam (INN), nimetazepam (INN), nitrazepam (INN), nordazepam (INN), oxazepam (INN), pinazepam (INN), prazepam (INN), pyrovalerone (INN), temazepam (INN), tetrazepam (INN) and triazolam (INN), and salts thereof   |
|                | 293399           | Heterocyclic compounds with nitrogen hetero-atom[s] only (excl. those containing an unfused pyrazole, imidazole, pyridine or triazine ring, whether or not hydrogenated, a quinoline or isoquinoline ring-system, not further fused, whether or not hydrogenated, a pyrimidine ring, whether or not hydrogenated, or piperazine ring in the structure, and lactams, alprazolam (INN), camazepam (INN), chlordiazepoxide (INN), clonazepam (INN), clorazepate, delorazepam (INN), diazepam (INN), estazolam (INN), ethyl loflazepate (INN), fludiazepam (INN), flunitrazepam (INN), flurazepam (INN), halazepam (INN), lorazepam (INN), lormetazepam (INN), mazindol (INN), medazepam (INN), midazolam (INN), nimetazepam (INN), nitrazepam (INN), nordazepam (INN), oxazepam (INN), pinazepam (INN), prazepam (INN), pyrovalerone (INN), temazepam (INN), |
|                | 293410           | tetrazepam (INN) and triazolam (INN), salts thereof and azinphos-methyl (ISO))  Heterocyclic compounds containing an unfused thiazole ring, whether or not hydrogenated, in the   |
|                | 293420           | structure  Heterocyclic compounds containing in the structure a benzothiazole ring-system, whether or not   |
|                | 233420           | hydrogenated, but not further fused (excl. inorganic or organic compounds of mercury)   |



| <u>Pharmaceutical</u> | <u>CN</u>        | الموردة المور |
|-----------------------|------------------|---|
| <u>Category</u>       | <u>Code</u>      |   |
|                       | 293430           | Heterocyclic compounds containing in the structure a phenothiazine ring-system, whether or not  |
|                       | 293491           | hydrogenated, but not further fused Aminorex (INN), brotizolam (INN), clotiazepam (INN), cloxazolam (INN), dextromoramide (INN),  |
|                       | 253451           | haloxazolam (INN), ketazolam (INN), mesocarb (INN), oxazolam (INN), pemoline (INN),   |
|                       |                  | phendimetrazine (INN), phenmetrazine (INN) and sufentanil (INN), and salts thereof  |
|                       | 293499           | Nucleic acids and their salts, whether or not chemically defined; heterocyclic compounds (excl. with  |
|                       |                  | oxygen only or with nitrogen hetero-atom[s] only, compounds containing in the structure an unfused  |
|                       |                  | thiazole ring or a benzothiazole or phenothiazine ring-system, not further fused and aminorex (INN),  |
|                       |                  | brotizolam (INN), clotiazepam (INN), cloxazolam (INN), dextromoramide (INN), haloxazolam (INN),   |
|                       |                  | ketazolam (INN), mesocarb (INN), oxazolam (INN), pemoline (INN), phendimetrazine (INN),   |
|                       |                  | phenmetrazine (INN), sufentanil (INN), and salts thereof, and inorganic or organic compounds of mercury whether or not chemically defined, and products of 3002 10)   |
|                       | 293590           | Sulphonamides (excl. perfluorooctane sulphonamides)   |
|                       | 293621           | Vitamins A and their derivatives, used primarily as vitamins  |
|                       | 293622           | Vitamin B1 and its derivatives, used primarily as vitamins  |
|                       | 293623           | Vitamin B2 and its derivatives, used primarily as vitamins  |
|                       | 293624           | D-Pantothenic or DL-pantothenic acid "Vitamin B3 or B5" and their derivatives, used primarily as  |
|                       |                  | vitamins  |
|                       | 293625           | Vitamin B6 and its derivatives, used primarily as vitamins  |
|                       | 293626           | Vitamin B12 and its derivatives, used primarily as vitamins   |
|                       | 293627           | Vitamin C and its derivatives, used primarily as vitamins   |
|                       | 293628           | Vitamin E and its derivatives, used primarily as vitamins   |
|                       | 293629           | Vitamins and their derivatives, used primarily as vitamins, unmixed (excl. vitamins A, B1, B2, B3, B5, B6, B12, C, E and their derivatives)   |
|                       | 293690           | Provitamins and mixtures of vitamins, of provitamins or of concentrates, whether or not in any  |
|                       | 202744           | solvent, and natural concentrates   |
|                       | 293711           | Somatropin, its derivatives and structural analogues, used primarily as hormones  |
|                       | 293712<br>293719 | Insulin and its salts, used primarily as hormones  Polypeptide hormones, protein hormones and glycoprotein hormones, their derivatives and  |
|                       | 233713           | structural analogues, used primarily as hormones (excl. somatropin, its derivatives and structural  |
|                       |                  | analogues, and insulin and its salts)   |
|                       | 293721           | Cortisone, hydrocortisone, prednisone "dehydrocortisone" and prednisolone "dehydrohydrocortisone"   |
|                       | 293722           | Halogenated derivatives of corticosteroidal hormones  |
|                       | 293723           | Oestrogens and progestogens   |
|                       | 293729           | Steroidal hormones, their derivatives and structural analogues, used primarily as hormones (excl.   |
|                       |                  | cortisone, hydrocortisone, prednisone "dehydrocortisone", prednisolone "dehydrohydrocortisone",   |
|                       |                  | halogenated derivatives of corticosteroidal hormones, oestrogens and progestogens)  |
|                       | 293750           | Prostaglandins, thromboxanes and leukotrienes, their derivatives and structural analogues, used primarily as hormones   |
|                       | 293790           | Hormones, natural or reproduced by synthesis; derivatives and structural analogues thereof, used  |
|                       |                  | primarily as hormones (excl. polypeptide hormones, protein hormones, glycoprotein hormones,   |
|                       |                  | steroidal hormones, catecholamine hormones, prostaglandins, thromboxanes and leukotrienes, their  |
|                       | 2022             | derivatives and structural analogues, and amino-acid derivatives, and products of 3002 10)  |
|                       | 293810           | Rutoside "rutin" and its derivatives  |
|                       | 293890           | Glycosides, natural or reproduced by synthesis, and their salts, ethers, esters and other derivatives (excl. rutoside "rutin" and its derivatives)  |
|                       | 293911           | Concentrates of poppy straw; buprenorphine (INN), codeine, dihydrocodeine (INN), ethylmorphine,   |
|                       |                  | etorphine (INN), heroin, hydrocodone (INN), hydromorphone (INN), morphine, nicomorphine (INN),  |
|                       |                  | oxycodone (INN), oxymorphone (INN), pholcodine (INN), thebacon (INN) and thebaine, and salts thereof  |
|                       | 293919           | Alkaloids of opium and their derivatives, and salts thereof (excl. concentrates of poppy straw;   |
|                       |                  | buprenorphine (INN), codeine, dihydrocodeine (INN), ethylmorphine, etorphine (INN), heroin,   |
|                       |                  | hydrocodone (INN), hydromorphone (INN), morphine, nicomorphine (INN), oxycodone (INN),  |
|                       | 293920           | oxymorphone (INN), pholcodine (INN), thebacon (INN) and thebaine, and salts thereof)  Alkaloids of cinchona and their derivatives; salts thereof  |
|                       | 293920           | Caffeine and its salts  |
|                       | 293941           | Ephedrine and its salts   |
|                       | 293942           | Pseudoephedrine (INN) and its salts   |
|                       | 293943           | Cathine (INN) and its salts   |
|                       | 293944           | Norephedrine and its salts  |
|                       | 293949           | Ephedrines and their salts (excl. ephedrine, pseudoephedrine (INN), cathine (INN), norephedrine,  |
|                       | 2022-1           | and their salts)  |
|                       | 293951           | Fenetylline (INN) and its salts   |



| Pharmaceutical   | CN     | Name  |
|------------------|--------|---|
| Category         | Code   | <u>reame</u>  |
| 30.1262.7        | 293959 | Theophylline and aminophylline "theophylline-ethylenediamine" and their derivatives, and salts thereof (excl. fenetylline (INN) and its salts)  |
|                  | 293961 | Ergometrine (INN) and its salts   |
|                  | 293962 | Ergotamine (INN) and its salts  |
|                  | 293963 | Lysergic acid and its salts   |
|                  | 293969 | Alkaloids of rye ergot and their derivatives; salts thereof (excl. lysergic acid, ergotamine and ergometrine, and their salts)  |
|                  | 293971 | Cocaine, ecgonine, levometamfetamine, metamfetamine (INN), metamfetamine racemate, and salts, esters and other derivatives thereof  |
|                  | 293979 | Vegetal alkaloids, natural or reproduced by synthesis, and their salts, ethers, esters and other derivatives (excl. alkaloids of opium, alkaloids of cinchons, theophylline, aminophylline "theophylline-ethylenediamine" alkaloids of rye ergot and their salts and derivatives, cocaine, ecgonine, levometamfetamine, metamfetamine (INN), metamfetamine racemate, and salts, esters and other derivatives thereof, caffeine and ephedrines, and their salts) |
|                  | 293980 | Non-vegetal alkaloids, natural or reproduced by synthesis, and their salts, ethers, esters and other derivatives  |
|                  | 294200 | Separate chemically defined organic compounds, n.e.s.   |
|                  | 300190 | Dried glands and other organs for organo-therapeutic uses, whether or not powdered; heparin and its salts; other human or animal substances prepared for therapeutic or prophylactic uses, n.e.s.   |
|                  | 300213 | Immunological products, unmixed, not put up in measured doses or in forms or packings for retail sale   |
|                  | 294110 | Penicillins and their derivatives with a penicillanic acid structure; salts thereof   |
|                  | 294120 | Streptomycins and their derivatives; salts thereof  |
|                  | 294130 | Tetracyclines and their derivatives; salts thereof  |
| Antibiotics APIs | 294140 | Chloramphenicol and its derivatives; salts thereof  |
|                  | 294150 | Erythromycin and its derivatives; salts thereof   |
|                  | 294190 | Antibiotics (excl. penicillins and their derivatives with a penicillanic acid structure, salts thereof, streptomycins, tetracyclines, chloramphenicol and erythromycin, their derivatives and salts thereof)  |

# **Antibiotics APIs**

| <u>Pharmaceutical</u> | CN          | <u>Name</u>   |
|-----------------------|-------------|---|
| <u>Category</u>       | <u>Code</u> |   |
|                       | 294110      | Penicillins and their derivatives with a penicillanic acid structure; salts thereof                     |
|                       | 294120      | Streptomycins and their derivatives; salts thereof  |
|                       | 294130      | Tetracyclines and their derivatives; salts thereof  |
| Antibiotics APIs      | 294140      | Chloramphenicol and its derivatives; salts thereof  |
|                       | 294150      | Erythromycin and its derivatives; salts thereof   |
|                       | 294190      | Antibiotics (excl. penicillins and their derivatives with a penicillanic acid structure, salts thereof, |
|                       |             | streptomycins, tetracyclines, chloramphenicol and erythromycin, their derivatives and salts thereof)    |

# Semi-finished products (SFPs)

| <u>Pharmaceutical</u> | CN          | <u>Name</u>   |
|-----------------------|-------------|---|
| <u>Category</u>       | <u>Code</u> |   |
|                       | 300214      | Immunological products, mixed, not put up in measured doses or in forms or packings for retail sale   |
|                       | 300310      | Medicaments containing penicillins or derivatives thereof with a penicillanic acid structure, or<br>streptomycins or derivatives thereof, not in measured doses or put up for retail sale   |
|                       | 300320      | Medicaments containing antibiotics, not in measured doses or put up for retail sale (excl. medicaments containing penicillins or derivatives thereof with a penicillanic acid structure, or streptomycins or derivatives thereof) |
| SFPs                  | 300331      | Medicaments containing insulin, not in measured doses or put up for retail sale   |
|                       | 300339      | Medicaments containing hormones or steroids used as hormones, not containing antibiotics, not in measured doses or put up for retail sale (excl. those containing insulin)  |
|                       | 300341      | Medicaments containing ephedrine or its salts, not containing hormones, steroids used as hormones or antibiotics, not in measured doses or put up for retail sale   |
|                       | 300342      | Medicaments containing pseudoephedrine (INN) or its salts, not containing hormones, steroids used as hormones or antibiotics, not in measured doses or put up for retail sale   |



| <u>Pharmaceutical</u> | <u>CN</u>   | <u>Name</u>   |
|-----------------------|-------------|---|
| <u>Category</u>       | <u>Code</u> |   |
|                       | 300343      | Medicaments containing norephedrine or its salts, not containing hormones, steroids used as hormones or antibiotics, not in measured doses or put up for retail sale  |
|                       | 300349      | Medicaments containing alkaloids or derivatives thereof, not containing hormones, steroids used as hormones or antibiotics, not in measured doses or put up for retail sale (excl. containing ephedrine, pseudoephedrine (INN), norephedrine or their salts)  |
|                       | 300360      | Medicaments containing any of the following antimalarial active principles: artemisinin (INN) for oral ingestion combined with other pharmaceutical active ingredients, or amodiaquine (INN); artelinic acid or its salts; artenimol (INN); artemotil (INN); artemether (INN); artesunate (INN); chloroquine (INN); dihydroartemisinin (INN); lumefantrine (INN); mefloquine (INN); piperaquine (INN); pyrimethamine (INN) or sulfadoxine (INN), not containing hormones, steroids used as hormones or antibiotics, not in measured doses or put up for retail sale |
|                       | 300390      | Medicaments consisting of two or more constituents mixed together for therapeutic or prophylactic uses, not in measured doses or put up for retail sale (excl. antibiotics containing hormones or steroids used as hormones, but not containing antibiotics, alkaloids or derivatives thereof, hormones, antibiotics, antimalarial active principles or goods of heading 3002, 3005 or 3006)  |