NATIONAL INSTITUTE OF TOXICOLOGY
AND FORENSIC SCIENCES

GOBIERNO DE ESPAÑA
MINISTERIO DE JUSTICIA

INT CIENCIAS FORENSES

# TOXICOLOGICAL INFORMATION SERVICE

MADRID

## Report 2020

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**National Institute of Toxicology and Forensic Sciences**
José Echegaray, 4. 28232 Las Rozas. Madrid.
intcf@justicia.es

Website:
https://www.mjusticia.gob.es/es/ministerio/organismos-entidades/instituto-nacional

# National Institute of Toxicology And Forensic Sciences

# Toxicological Information Service

# Report 2020

GOBIERNO DE ESPAÑA | MINISTERIO DE JUSTICIA

Madrid, 2021

Report presented by Antonio Alonso Alonso
Director of the National Institute of Toxicology and Forensic Sciences

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# 1. INTRODUCTION TO THE TOXICOLOGICAL INFORMATION SERVICE - SIT

The Toxicological Information Service (SIT, from the Spanish *Servicio de Información Toxicológica*) was created in February 1971, by Decree 1789/1967, of 13 July, as a technical and advisory body to the Ministry of Justice on toxicological matters and carries out its tasks as the Spanish Poison Centre.

It carries out the institutional and technical assistance functions for the Department of Justice at the request of Courts, Prosecutors, and Institutes of Legal Medicine and Forensic Science in matters within its competence. In addition, it performs, *inter alia*, the health function and better-known service of providing an immediate telephone response through its medical staff to enquiries about intoxication or exposure to toxic substances through initial advice and recommended treatment.

It also aims to spread toxicology-related knowledge and contribute to preventing intoxications through pharmacological and toxicological precautionary measures.

As well acting as a medical service, the SIT includes a Documentation Section staffed by qualified professionals with different degrees in health sciences. Its role includes the design, review, and updating of the database with information on the composition, toxicity, and hazard rating of the products sold and marketed in Spain and previously reported to the National Institute of Toxicology and Forensic Sciences (INTCF, from the Spanish *Instituto Nacional de Toxicología y Ciencias Forenses*). In this regard, as regulated by Law 8/2010, of 31 March, the INTCF, and through the SIT, is the agency to which companies that market hazardous chemical mixtures must provide, under the CLP Regulation, the relevant information, including the composition of the products and mixtures, in order to be able to provide the healthcare response of the physicians in the event of intoxication, as well as the chemical identity of the substances in accordance with Article 24 of the CLP Regulation.

Therefore, the SIT acts as the only national poison centre, as it is the public agency that receives information on the chemical compositions through the Documentation staff and it provides the immediate healthcare response to users who consult its service, staffed by expert medical staff 24 hours a day without interruption.

The SIT is an easily accessible public service. Its telephone number, 915620420, can be found on the labels of the chemical product packages available to users, on their safety data sheets and on the package inserts of all pharmaceutical products marketed as medicinal products. This widespread dissemination of the SIT phone number for the resolution of toxicological emergencies enables direct and immediate contact between the intoxicated person, or anyone requiring any information about toxicology, and the Service's medical staff.

This report sets out the activities performed over 2020 by the SIT regarding the telephone enquiries received related to exposure to toxins involving both humans and animals, the handling of the enquiries not related to toxic agents, the medical enquiries resolved for the general population that were unable to contact their health centre due to the healthcare situation, as well as the breakdown of the requests for information on any particular chemical product, and, particularly, those relating to enquiries on medicinal products to clarify the user's doubts in this regard. It also includes the activity performed by the Documentation Section with regard to the records of chemical mixtures and the procedures carried out.

# 2. ORGANISATION, STAFFING AND FUNCTIONS OF THE SIT

## 2.1. Organisation

The SIT is a unique nationwide reference public service as it is the only one with these characteristics: continuous availability around the clock and universal accessibility, offering in turn direct contact by telephone with the medical staff and rapid response to provide immediate health advice to the general public.

Its medical staff, experts in toxicology, perform different functions, detailed in the relevant section, which are framed under two categories. Firstly, it is an agency at the disposal of the Department of Justice to provide toxicological advice at the request of its staff, whether magistrates, judges, prosecutors, forensic doctors or Institutes of Legal Medicine and Forensic Science. Secondly, as a health service, it provides an immediate medical response to intoxicated patients or in response to enquiries made by the general public in toxicological matters.

In contrast to other poison centres, its medical staff are always present and available 24 hours a day, 365 days a year, giving permanent attention and a direct and immediate medical response. Furthermore, the staff are not associated with any hospital emergency department, unlike in other countries, although they can quickly avail of toxicological information as they have specific knowledge of the product formulations registered and sold in the market. Regarding this last point, all SIT staff are bound by the Institution's duty to respect the commitment to confidentiality with regard to this information issued by the companies when they make their products available on the market.

It must be stressed (as it is established by law and relevant regulations) that companies must report the chemical compositions of the substances and the chemical identity present in the mixtures they sell and market that are classified as hazardous because of their possible effects on human health. The SIT Documentation Section staff manage the notifications to include them in our databases and make them available to doctors to make the corresponding health response.

## 2.2. Telephone lines

The SIT telephone number, 915620420, is widely available to the general public. There is also another line set up for the health services, 914112676, which facilitates direct communication with the healthcare staff with regard to early specific advice according to the characteristics of the patient and the intoxication. Also noteworthy are the enquiries made by other healthcare professionals such as pharmacists, nurses, and veterinarians. In this regard, the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT) considers that one of the indicators which show the quality of a Poison Centre

is the accessibility and extent to which the people to whom it provides its services are aware of the Toxicology Emergencies phone number.

In addition, the SIT is interconnected through another direct telephone line with the National Centre for Civil Protection Emergencies (CENEM), to speed up their consultation in the event of toxicological accidents or toxic spills involving hazardous chemicals.

### 2.3. Management of enquiries received

The enquiries received at the SIT are always handled by physicians belonging to Forensic Physicians/Doctors and INTCF Facultative Physicians or physicians of the INTCF. As experts in Toxicology, they provide immediate advice on the initial management of the intoxicated patient. Similarly, and if required, they inform the caller about the toxicological and pharmaceutical characteristics of the active ingredients and commercial preparations and the analytic and therapeutic measures that may support the recommended treatment. Similarly, a foreseeable prognosis is interpreted a priori as an estimate of the severity of the toxic exposure, among other parameters included in each record after the enquiry is made.

The epidemiological data and the most important parameters of the information requester that are collected in each toxicological enquiry include the province, age, sex, the product responsible for the intoxication, the clinical effects and the recommended medical treatment. Statistical processing of all these data allows epidemiological monitoring of toxic exposures and intoxications.

### 2.4. Access

There are different ways of contacting the SIT, which are detailed below.

**Table 2.4.1. Ways of contacting the SIT**

| | |
|---|---|
| Telephone lines | *91 562 04 20 (Attention to individuals)*<br>*91 411 26 76 (Attention to health personnel)*<br>*Direct interconnection line with CENEM* |
| Emails | *intcf.sit@justicia.es (Toxicological Information Service)*<br>*intcf.doc@justicia.es (Documentation Section)* |
| Web portal | https://www.mjusticia.gob.es/es/ministerio/organismos-entidades/instituto-nacional/servicios/servicio-informacion |
| Postal address | *c/ José de Echegaray, 4. 28232 Las Rozas. Madrid* |

## 2.5. Workforce

The SIT staff is formed by different professional categories which belong to forensic doctors, physicians, pharmacists and different administrative scales. The Service also has the Documentation Section with its head office.

**Table 2.5.1. Toxicological Information Service Staff**

| | Toxicological Information Service INTCF-MADRID |
|---|---|
| Head of Service | 1 |
| Head of Documentation Section | 1 |
| Pharmacists & physicians | 17 |
| Forensic doctors | 7 |
| Administrative staff | 7 |

There are 13 physicians and 7 forensic doctors with university degrees in medicine and surgery who attend the toxicological enquiries. In addition, 5 experts (including its head) with university degrees in pharmacy, medicine, surgery and biological sciences attend the Documentation Section.

## 2.6. Staff functions

Depending on the professional categories included inside the Service, different functions are carried out:

**Medical staff**

- Preparation of expert reports at the request of the Department of Justice.
- Preparation of toxicological report for the general public.
- Attendance at trials as official experts.
- Toxicological advice to Legal Medicine and Forensic Medicine Institutes.
- Attention and management of toxicological enquiries made to the Service.
- Addressing and initial treatment in relation to enquiries by intoxicated patients.
- Dissemination and educational activity in relation to the requested toxicological information.
- Proposals for managing chemical accidents and toxic disasters.
- Epidemiological toxicovigilance.

**Documentation Section staff**

- Preparation of expert reports at the request of the Department of Justice.
- Attendance at trials as official experts.

- Updating of the Service's existing databases.
- Interconnection with official bodies, associations and companies that manufacture or market chemical products.
- Evaluation of the formulations by toxicokinetics and toxicodynamics.
- Authorization of the SIT phone number on the chemical product labels.
- Inclusion of compositions and products through toxicological data sheets.
- Participation in the European harmonisation of the information to be provided to the appointed bodies in each Member State.
- Participation in the IT development necessary for the receipt and management of notifications sent by chemical companies to the INTCF.
- Epidemiological toxicovigilance.

**Administrative staff**

- Receipt of notifications and documents from companies and manufacturers.
- Management and administrative processing.
- Submission of expert reports and opinions prepared by staff.

## 2.7. Work resources and tools

- SIT database handled 495,303 product data sheets up to 31/12/2020, which includes both active ingredients and products commercialised in the Spanish market. A prior toxicological assessment has been carried out on each data sheet to provide an immediate medical response in the event of an enquiry.

  Over 2020, 40,326 new product notifications or product submissions have been added to the database. Among these there are both active ingredients and chemical mixtures of new products sold on the Spanish market or previously reported product formulas that have undergone modifications. The database contains the compositions, the hazard rating, the physical characteristics, the information on the labelling, as well as other information which makes it possible to know the toxicity of the product and provide an immediate medical response following a potentially toxic exposure or intoxication with one of the products reported to the SIT.

- Database prepared according to the characteristics of the enquiries received by telephone, using data collection sheets including the person requesting information, intoxicated person, the product involved in the intoxication, symptomatology presented by the intoxicated person, estimation of the seriousness of the case, and the treatment recommended by the SIT, and other parameters. The number of records collected over the years and including 2020 stands at 1,572,380.

- Drugs and new substances database, recently prepared by the medical staff.

- Plants database, maintained and prepared by its medical staff.

- Different commercial databases, national and foreign, of toxicological interest related to chemical substances (synthetic and natural).
- The Service's own library, with nearly 200 volumes, in addition to books and treatises on toxicology found in the general library of the INTCF.

# 3. STATISTICAL DATA ON TELEPHONE ENQUIRIES

## 3.1. Preliminary information

All enquiries received in our Service are attended both from members of the public requesting information without any specific healthcare education and from healthcare staff from primary care centres, hospitals, emergency services (including both intra-hospital and extra-hospital), for the exclusive use of such staff.

It should be pointed out in this Report that the outbreak in mid-March of the health crisis resulting from the pandemic caused by the SARS-CoV-2 coronavirus conditioned the work dynamics of the SIT, which underwent an unexpected and unprecedented change. It was essential for all the SIT staff to be assigned to teleworking, requiring an early adaptation to such working in order to continue providing an adequate public service.

In this regard, it is necessary to detail that during the long time of the health crisis, the attention to the users was not reduced, but that the staff was conditioned by the changes in the technical logistics and materials given. Thanks to the work of the Sub-Directorate General for Planning and Managing the Digital Transformation, a virtual digital space was set up that included the personal desktops of each doctor and work applications. The staff members therefore continued to provide the remote and immediate healthcare response to telephone enquiries. This was despite the difficulties experienced in relation to the numerous absences from work due to the pandemic (one third of its staff), as well as the problems in the computer and telephone infrastructure that occurred in the first few months, with failed remote connections at work shift changes. In some cases, these setbacks conditioned access to teleworking and limited the proper addition of computer records in the databases, so that not all the data of the enquiries received could be recorded.

To minimise the impact of the decrease in effective staff, one hundred seventy extra work shifts had to be added to the medical staff available to provide the corresponding service.

In addition, due to the decrease in care in health centres during this time, the SIT received an increase in the number of enquiries related to the pandemic over 2020. Given the medical and pharmacological enquiries received, and also reflected in this report, our staff had to act electronically, which required the effort to transmit supplementary health information according to the situation of the pandemic and with an additional time dedicated to the user requesting information.

Similarly, the staff of the Documentation Section were forced to adapt to this exceptional situation, managing the information sent by companies in the chemical sector, as well as all enquiries about the procedure that they must fulfil in relation to current regulations through teleworking. This made it possible to continue responding quickly (in 24 hours) to any enquiries made and to integrate the information sent into the IT systems. This

information was abundant as a result of the imminent change in applicable regulations due to the entry force of Annex VIII of the European CLP Regulation, already implemented since 1 January 2021.

The SIT is still waiting for the final development and start-up of the new SIT Platform as a joint tool for accessing the product files that the chemical sector sends to our Service in accordance with current national and European regulations, as well as the new IT format of the records collected from the intoxicated persons who consult us. This is still in the final completion stage in the Administrative Solutions Centre of the Sub-Directorate General for Planning and Managing the Digital Transformation. In this regard, the new SIT Platform will offer added value and a clear improvement for the statistical exploitation of the data collected in the enquiries.

### 3.2. Distribution of total statistical data

According to the data provided by the information requester, 85,283 telephone calls were received in 2020, with these groups being differentiated according to the type of enquiry:

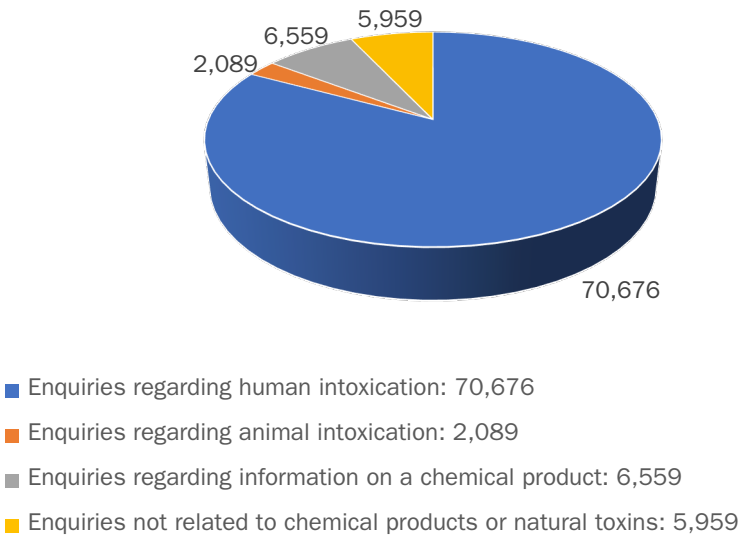
- Enquiries regarding intoxication in humans: **70,676**.
- Enquiries for intoxication in animals: **2,089**.
- Enquiries regarding requests for information: **6,559**.
- Enquiries unrelated to chemical products or natural toxins: **5,959**.

This total number of enquiries made to the SIT in 2020, compared with the 80,000 consultations recorded on average per year in previous years, represents an increase of around 7 %.

Having analysed the statistical data over 2020, we can conclude that this increase in the number of enquiries was due to the overuse of cleaning products and biocidal products, as will be shown in the corresponding sections. This happened as a result of the need for protection against the SARS-CoV-2 virus as the cause of the pandemic.

The distribution of the statistical data by each Enquiry section is shown below. It can be noted that each group contains a percentage of unknown data, as these have not been appropriately classified. This is attributable to the problems suffered with respect to the IT and telephone infrastructure necessary for teleworking, as various incidents were generated by the technical difficulties encountered in accessing individual profiles, the virtual digital space created and the databases with which the staff work.

Figure 3.2.1. Distribution of calls according to type of enquiry




### *3.2.1. Enquiries regarding intoxications or toxic exposures in humans*

Figure 3.2.1.1 Distribution (%) by Autonomous Communities of the enquiries received regarding intoxications in humans

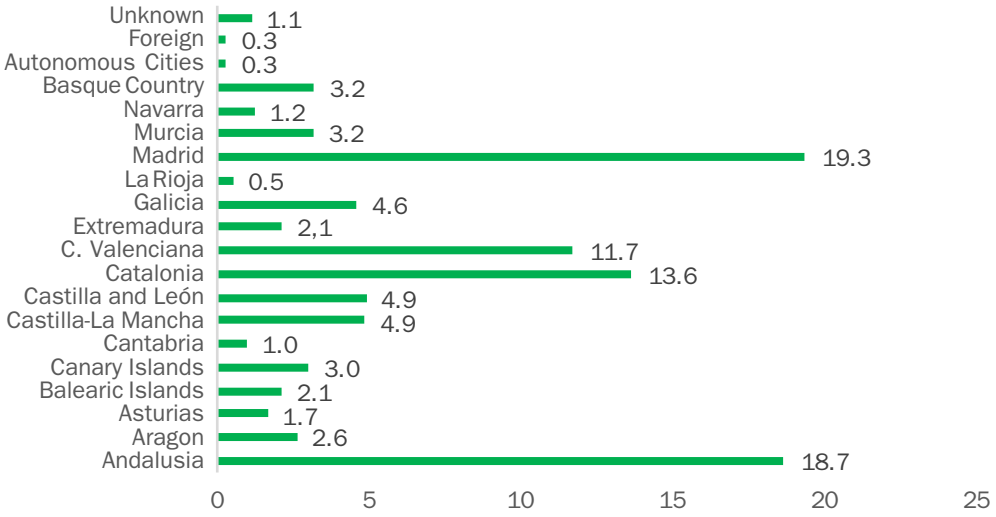
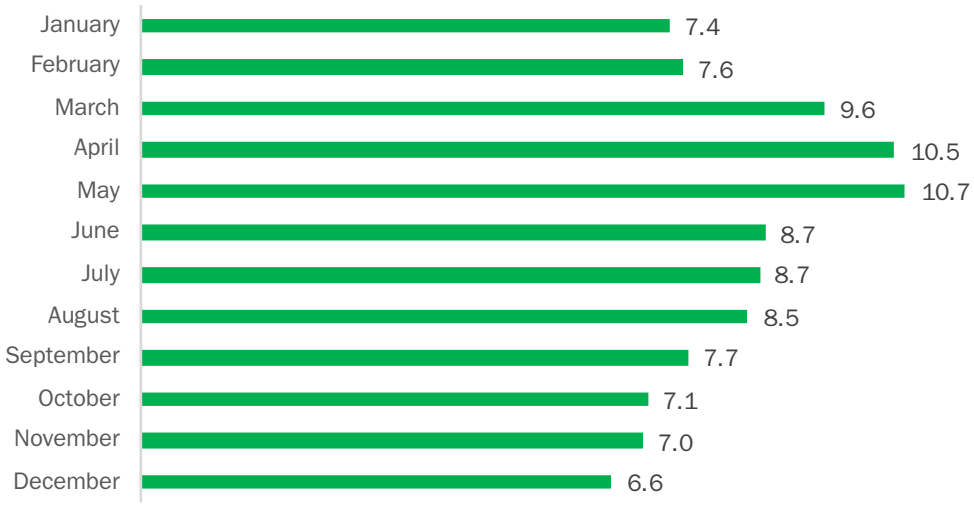
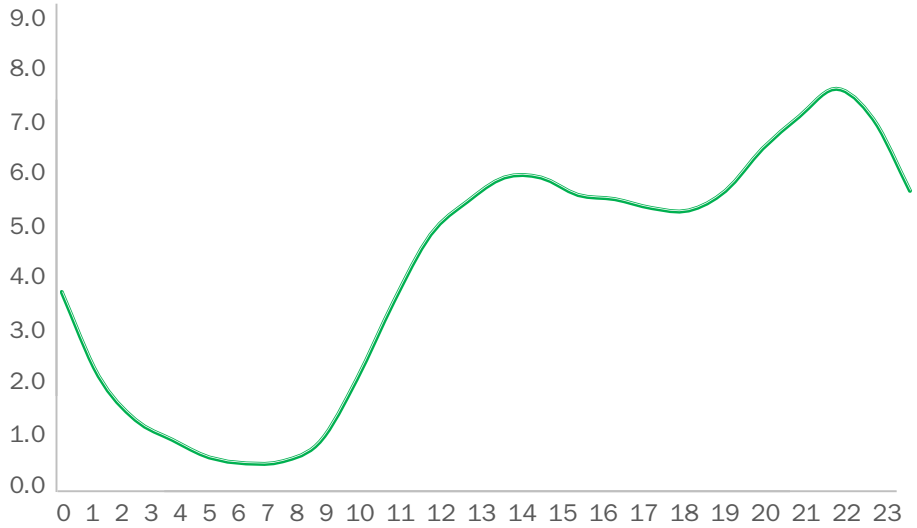


Figure 3.2.1.2. Monthly distribution (%) of enquiries regarding intoxications in humans




It should be noted that, due to the outbreak of the health pandemic, the months with the highest percentages of enquiries made to the SIT are March, April and May, with the monthly percentages gradually decreasing throughout the year.

Figure 3.2.1.3. Hourly distribution of enquiries received regarding intoxications in humans




Coinciding with the time the whole family is at home, there is a peak in calls in the late evening, between 7 pm and 9 pm, which is similar to that recorded in previous years.

**Figure 3.2.1.4. Distribution (%) of the type of requester information (health sciences education) regarding intoxications in humans**

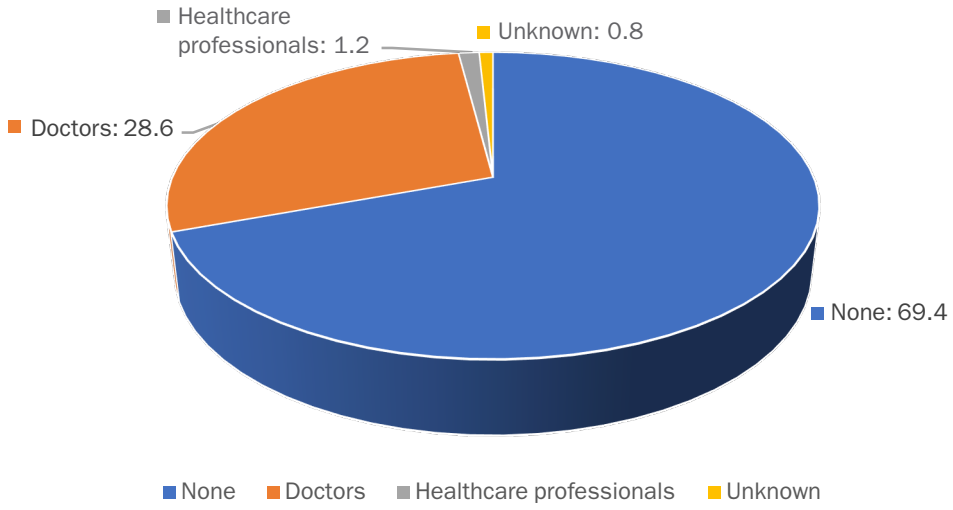


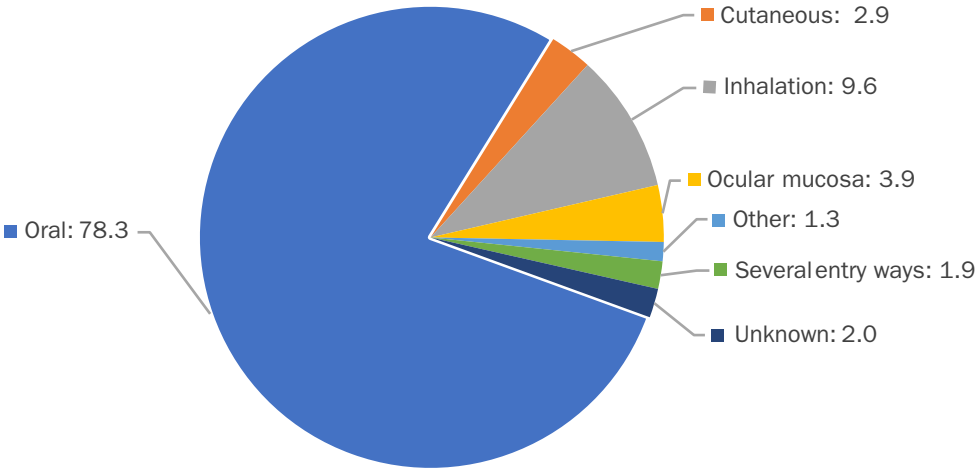

**Table 3.2.1.1. Distribution (%) of the type of information requester within the enquiries made by healthcare staff**

| | |
|---|---|
| Doctor's practice | 2.6 |
| Health centre | 26.3 |
| Hospital | 58.2 |
| Mutual insurance company | 0.2 |
| A&E | 9.6 |
| Healthcare residence | 2.2 |
| Pharmacy | 0.8 |
| Veterinary practice | 0.1 |
| | 100.0 |

The ingestion route of entry clearly predominates in the percentage of intoxications and toxic exposures in humans (78.3%), similar to statistics from previous years.

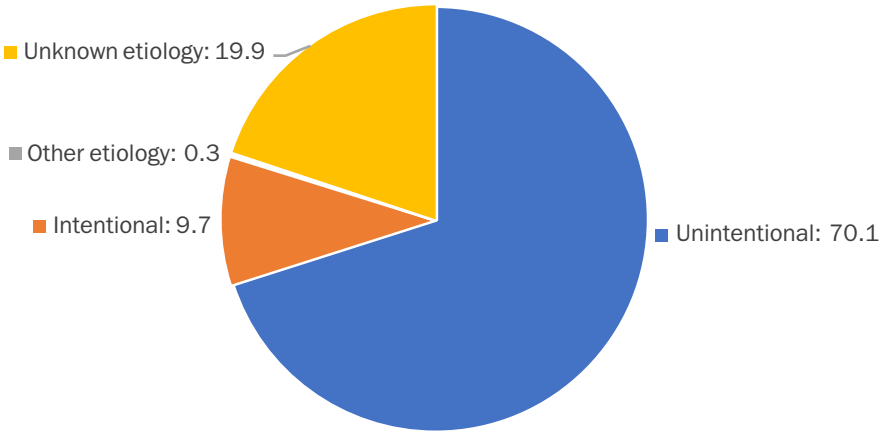
However, there was a noteworthy increase in the percentage of intoxications by inhalation compared with previous years (from 6.0% of the enquiries recorded in 2019 to 9.6% in 2020). This was likely related to the overuse of cleaning and related products in 2020.

Figure 3.2.1.5. Distribution (%) by route of entry in intoxications in humans



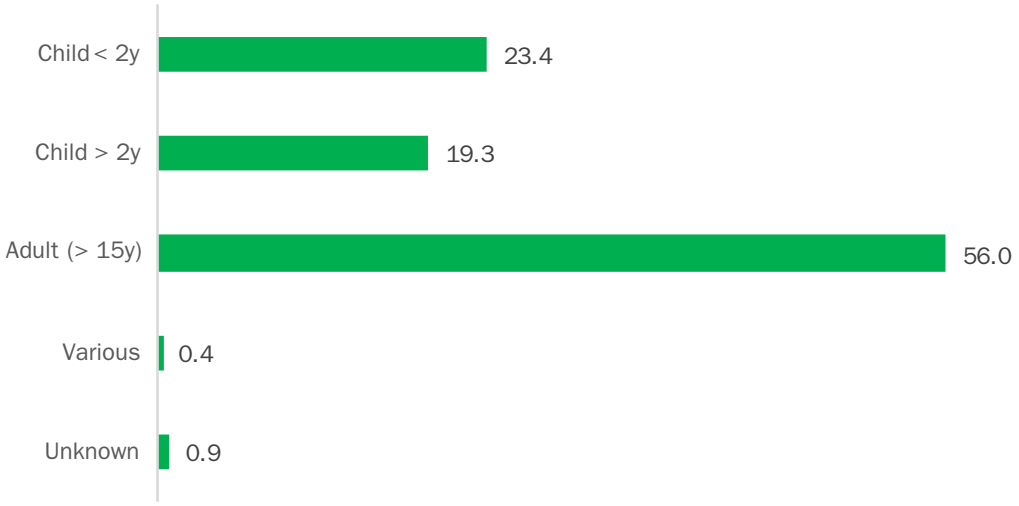

With regard to the reason for the intoxication, most of them are unintentional (70%), and 9.7% of intoxications were intentional or autolysis attempts. Given its particular features, this group of intoxications will be the subject of a more complete breakdown at the end of this chapter and in section 3.2.6.

Figure 3.2.1.6. Distribution (%) according to the cause of intoxications in humans



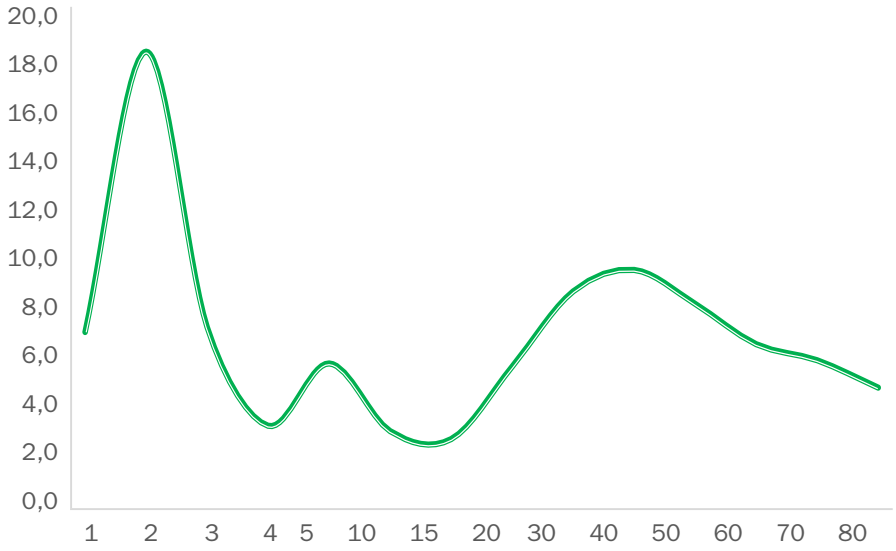

Compared with previous years, the percentage of intoxications in adults has increased this year to 56% (compared with 50.6% in 2019). This is probably related to the increase in intoxications as a result of overuse by this age group of cleaning products and the mixing of cleaning products.

Figure 3.2.1.7. Distribution (%) by type of intoxicated person in humans




Particularly striking is the peak in the incidence of intoxications recorded in children of 2 years old, doubling the distribution with respect to the next largest age group (adults between 40 and 49 years old). This peak incidence is interpreted as due to their specific features and the long time that they spent at home following the lockdown as a consequence of the healthcare crisis. We will also highlight the increase in adult intoxications over the course of this year, which has risen from 50.6% in 2019 to 56% of enquiries in 2020.

Figure 3.2.1.8. Distribution (%) by age of intoxicated person in humans



There is no particularly significant change in the distribution by sex in the intoxications recorded with respect to previous years, with an even distribution found between the sexes.

Figure 3.2.1.9. Distribution (%) by sex of the intoxicated person in humans

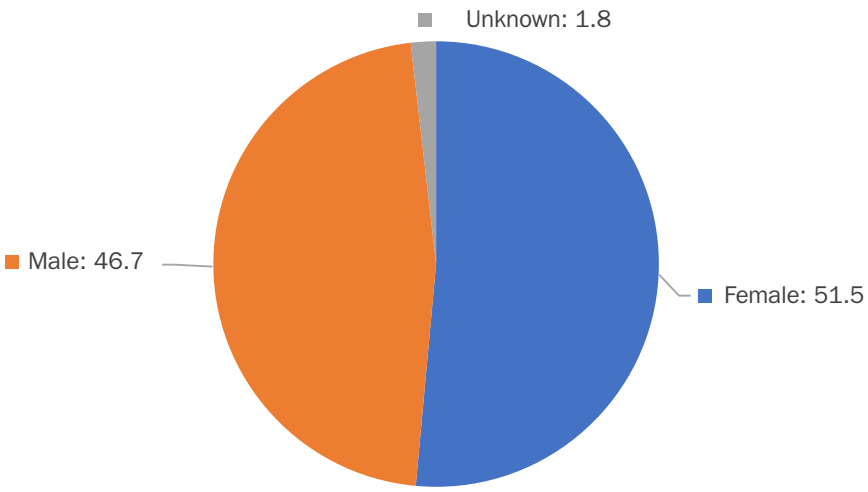
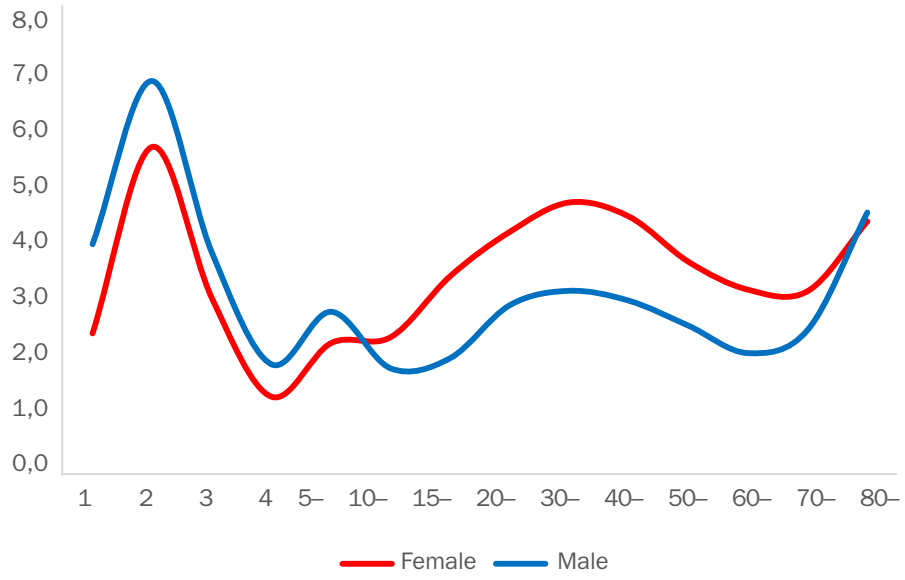



Table 3.2.1.2 Distribution (%) by age and sex of intoxicated persons

| | Female | Male |
|---|---|---|
| 1 | 2.6 | 4.3 |
| 2 | 6.2 | 7.5 |
| 3 | 3.3 | 4.2 |
| 4 | 1.4 | 2.0 |
| –5 | 2.4 | 3.0 |
| –10 | 2.5 | 1.9 |
| –15 | 3.7 | 2.1 |
| –20 | 4.6 | 3.1 |
| –30 | 5.2 | 3.4 |
| –40 | 4.9 | 3.2 |
| –50 | 4.0 | 2.7 |
| –60 | 3.5 | 2.2 |
| –70 | 3.4 | 2.7 |
| –80 | 4.8 | 4.9 |
| | 52.6 | 47.4 |

As in previous years and with respect to the joint parameters of sex and age, the higher number of cases of intoxications in boys compared with girls at early ages is noteworthy. This trend is reversed in the adult population (age ranges corresponding to middle ages), with the trend moving towards equilibrium in the elderly population.

**Figure 3.2.1.10. Distribution (%) of intoxications in humans by age and sex combined**

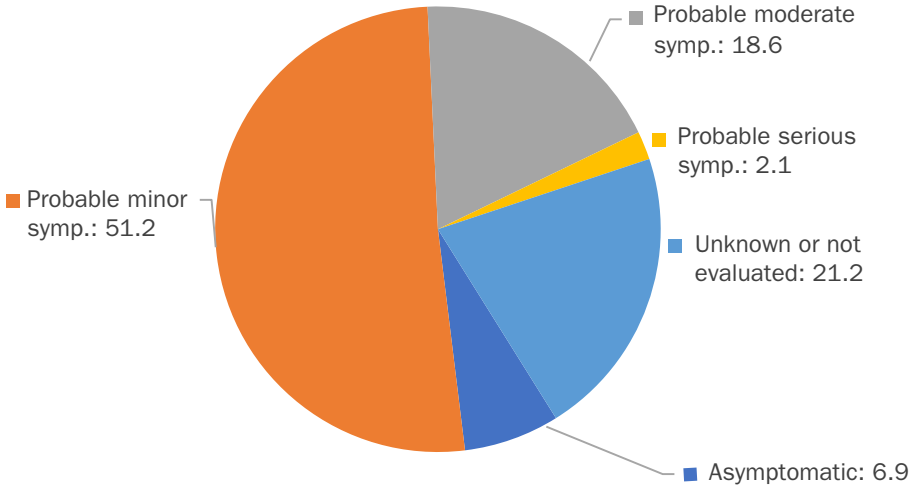



As the SIT doctors do not have direct contact with the acutely intoxicated person, in each enquiry received regarding intoxication and on the basis of the data provided by the requester, an estimate of the severity and foreseeable evolution of the intoxicated person is interpreted.

The estimation of the severity of intoxications has been considered moderate to severe in 20.7 % of the registered and known enquiries, a figure similar to that of previous years. Therefore, it is interpreted that the pandemic does not seem to have influenced the estimation of the severity of the total intoxications recorded in the SIT, although 21.2 % of them were not evaluated.

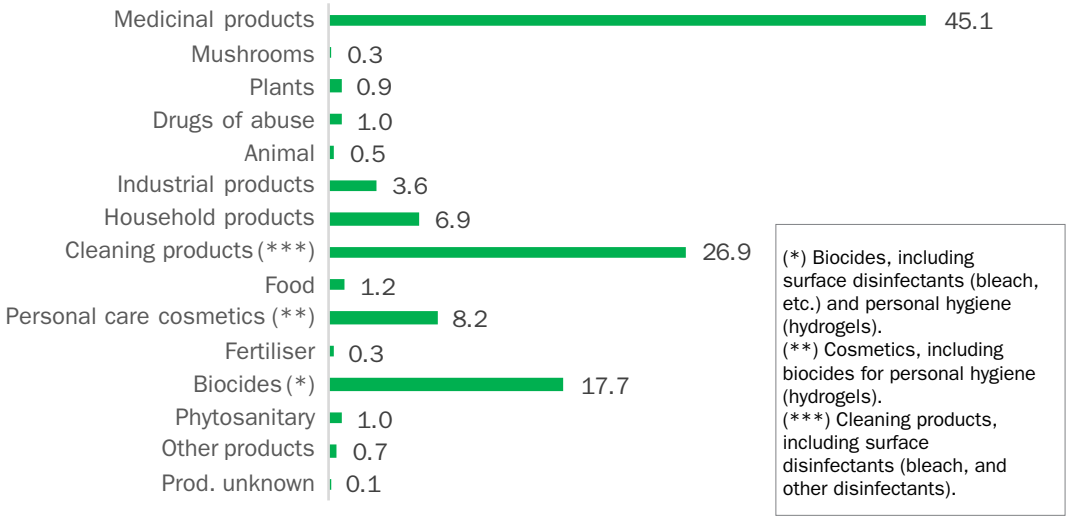
The high percentage of estimates that could not be evaluated is noteworthy. However, it is interpreted that these cases must correspond to symptomatologies not considered to be particularly extensive or to have a clinical impact as they were not detailed in the records.

**Figure 3.2.1.11. Distribution (%) of the estimated severity in intoxications in humans**




In this general figure, it can be seen that medicines are the type of product with the highest incidence in human intoxications (45.1%), slightly lower than in previous years (51.9%), and followed by intoxications as a result of cleaning products (26.9%), which exceed the average of previous years (20%). Intoxications by this type of product rose by almost 7% compared with the previous year.

**Figure 3.2.1.12. Distribution (%) of the type of product responsible for intoxications in humans**




Intoxications by biocides (17.7%) and by cosmetic products (8.2%) have clearly increased compared with 2019 (5.2% and 5.1%, respectively). This is due to the sudden increase in the early months of the pandemic of enquiries and intoxications due to bleaches and

their mixtures, mixtures of cleaning products or hydrogels, which will be detailed in Chapter 6.5.

Noteworthy among the medicinal products responsible for intoxications are those related to the nervous system (30.7 %), and particularly paracetamol and benzodiazepines, much like in previous years.

Among the intoxications registered for medicinal products, it is worth highlighting those there are intentional, which account for 16.5 %, as shown in the following graph.

**Figure 3.2.1.13. Distribution (%) of the type of medicinal product responsible for intoxications in humans**

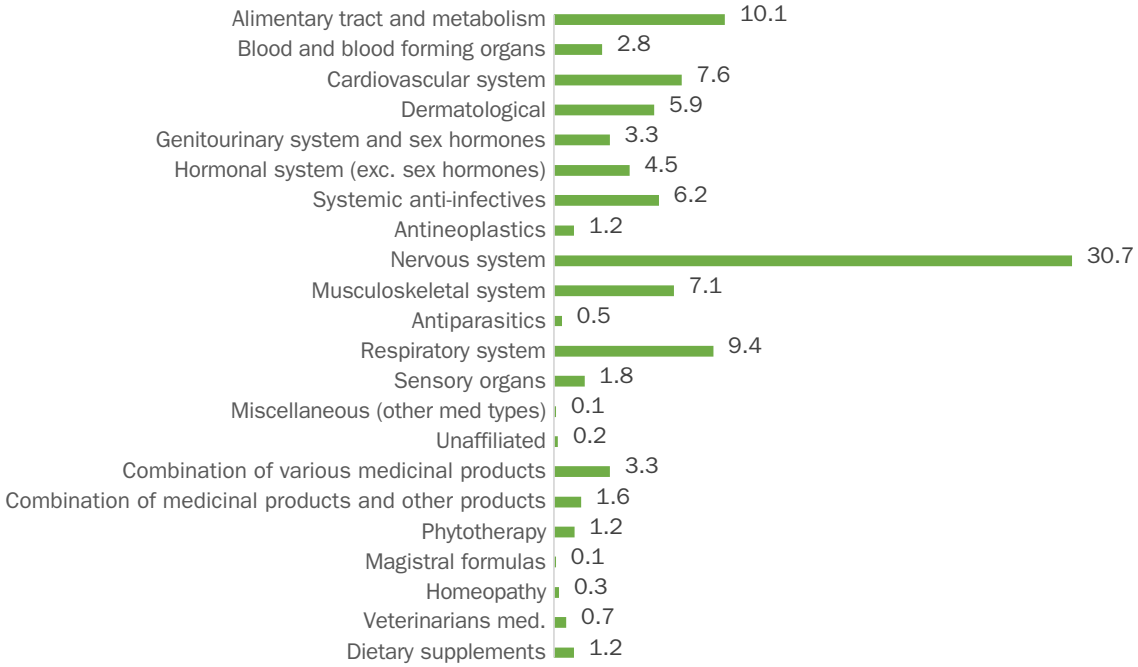
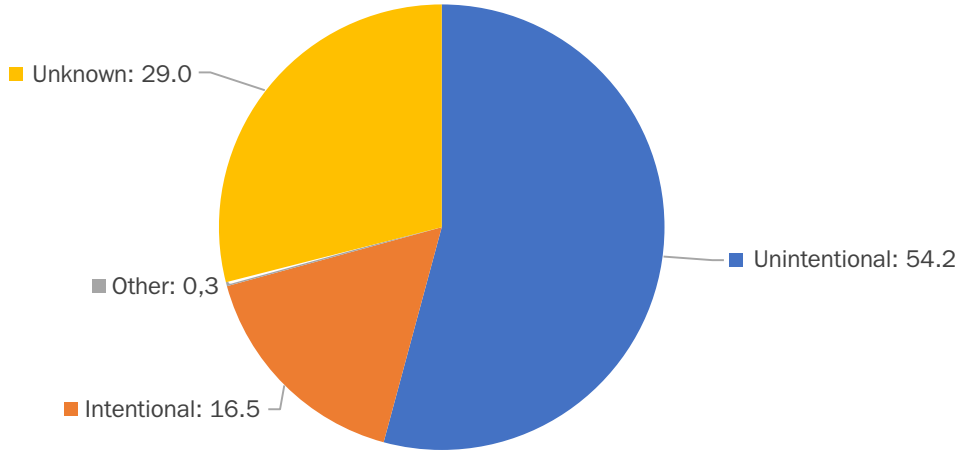


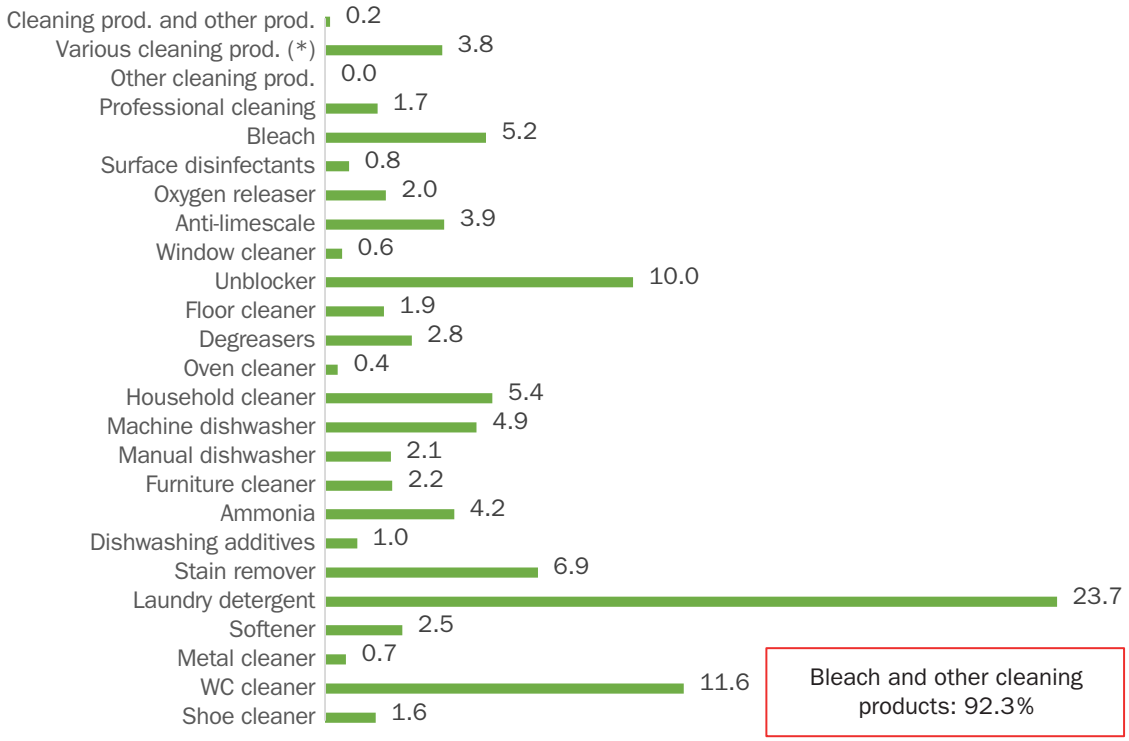

**Figure 3.2.1.14. Distribution (%) of the etiology of intoxications due to medicinal products**



The most common type of product is bleach in 23.7% of the intoxications or toxic exposures due to cleaning products. Furthermore, in the intoxications recorded as a result of mixing several cleaning products, bleach is also the main cause in almost all of these mixtures (92.3%), as shown in Figure 3.2.1.15.

Intoxications due to cleaning products have risen almost 7% compared with the average of previous years. This is explained by the desire to eliminate the SARS-CoV-2 virus responsible for the pandemic from the domestic environment.

**Figure 3.2.1.15. Distribution (%) of the types of cleaning products responsible for the intoxications**




Intoxications and toxic exposures due to biocidal products have grown notably in 2020, with their percentage tripling compared previous year (5.2% to 17.7%), with intoxications caused by surface disinfectants being particularly noteworthy.

As in previous years, in the case of exposure to insecticides, intoxications due to pyrethroid insecticides, widely used in domestic environments, predominate.

Figure 3.2.1.16. Distribution (%) of types of biocides

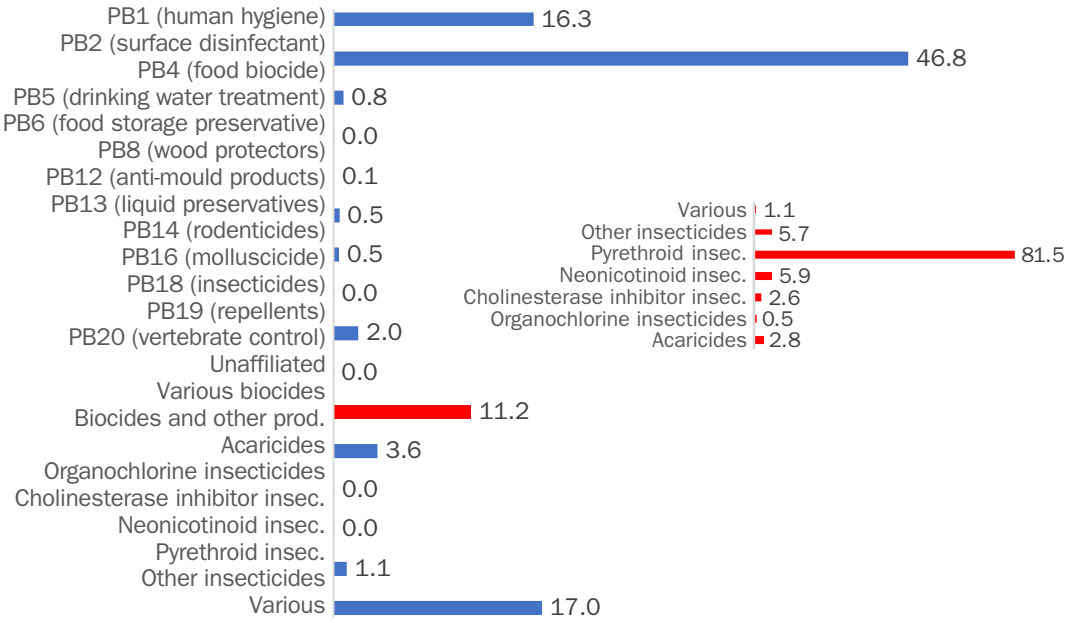



Table 3.2.1.3. Distribution (%) of the types of insecticides responsible in intoxications

| Type of insecticide | % |
|---|---|
| Acaricides | 2.8 |
| Organochlorine insecticides | 0.5 |
| Cholinesterase inhibitor insecticides | 2.6 |
| Neonicotinoid insecticides | 5.9 |
| Pyrethroid insecticides | 81.5 |
| Other insecticides | 5.7 |
| Various | 1.1 |

Figure 3.2.1.17 shows a comparative image between intoxications and toxic exposures produced by biocidal products between 2019 and 2020. There is a clear increase in the percentages of intoxications due to surface disinfectants and human hygiene products, in clear reference to the attention paid to disinfection in 2020 as a result of the pandemic caused by the SARS-CoV-2 virus.

There is a significant increase in the percentage of intoxications in humans due to cosmetic products in 2020 (8.2%) compared with 2019 (5.1%). This increase in the percentage denotes a clear rise in enquiries due to toxic exposure or intoxications from cosmetics, and particularly in the child population. This is attributable to the longer time spent at home due to the social situation of the lockdown of the high level of accessibility of alcoholic hydrogels.

Also noteworthy is the percentage of intoxications due to skin care products, especially antiseptics, which is clearly due to the greater level of prevention of infections over this year of the pandemic.

**Figure 3.2.1.17. Comparison of the distribution (%) of poisonings by biocides between the years 2019 and 2020**

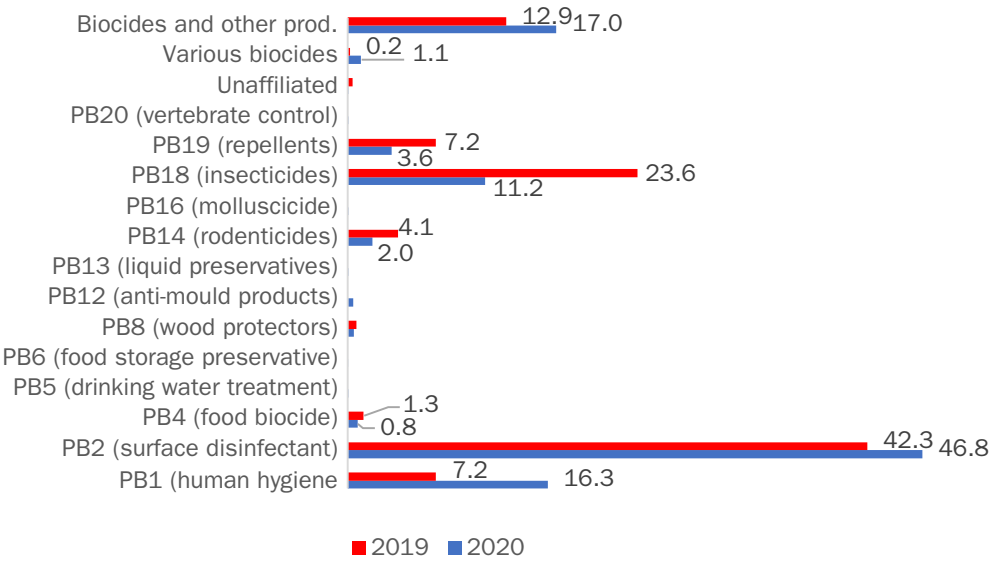
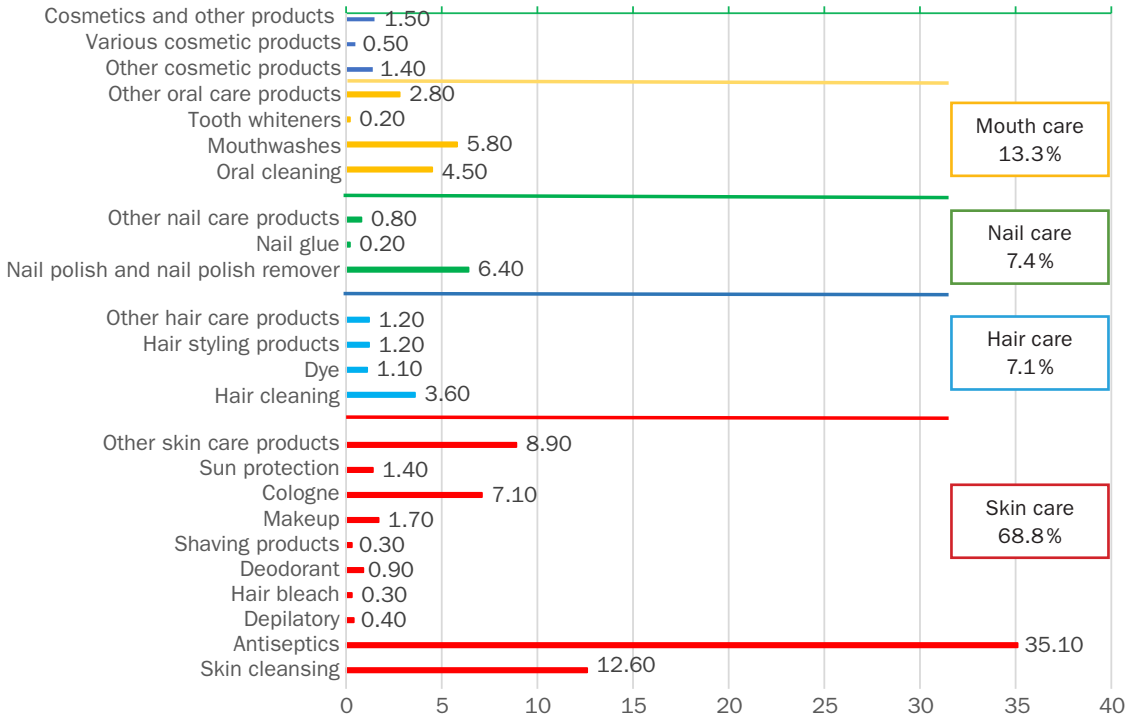
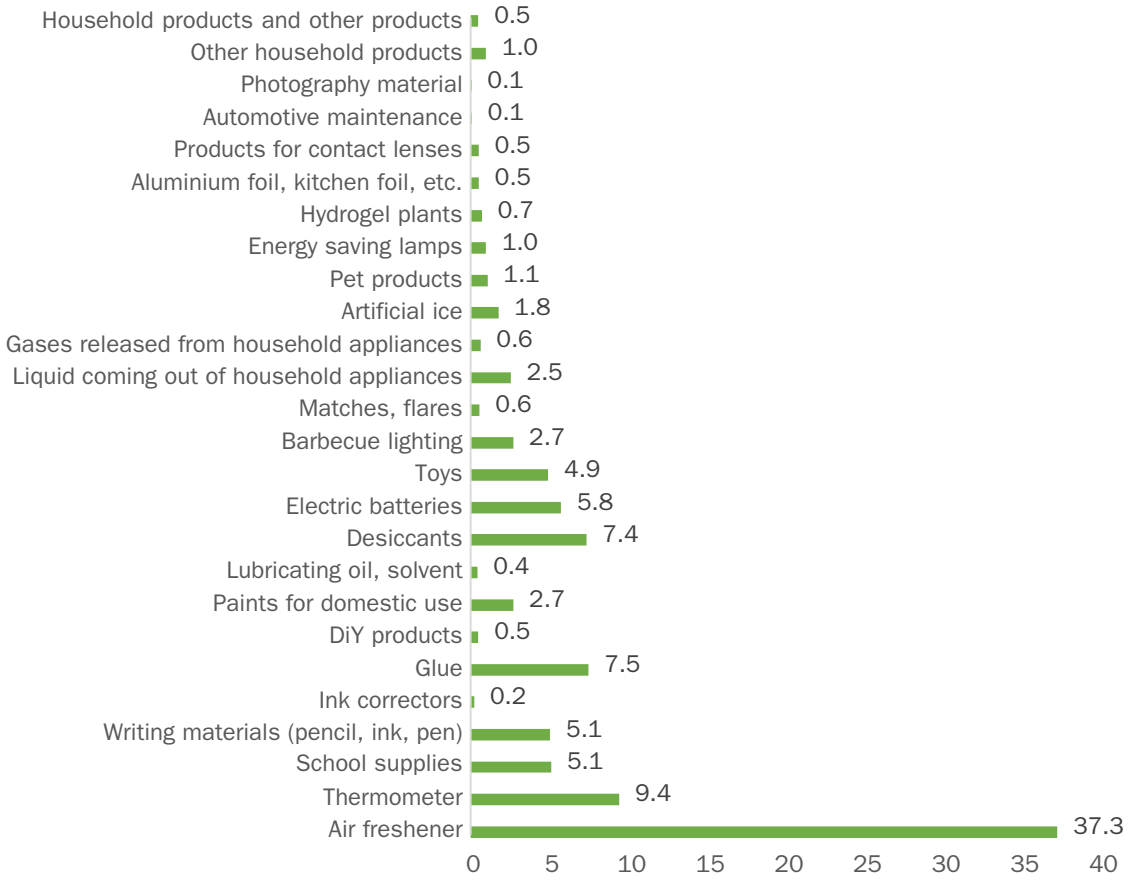



**Figure 3.2.1.18. Distribution (%) of intoxications by cosmetic products**



Over 2020, the statistical distribution of toxic exposures and intoxications caused by household products in humans accounts for 6.9% of the total. And particularly significant in this type of product are intoxications caused by air fresheners (37.3%).

**Figure 3.2.1.19. Distribution (%) of intoxications by household products**




Intoxications in humans caused by phytosanitary products account for 1% of the total, a figure similar to that of 2019. The most important were those produced by insecticides for agricultural use (35.5%). And within this group, the pyrethroid type is predominant in almost half of these cases.

There was a noteworthy clear increase in enquiries due to biocides (including hydrogels, surface disinfectants, and especially bleach and its mixtures with other products, etc.), which rose from 6,890 enquiries in 2019 to 13,913 enquiries in 2020.

Alcoholic hydrogels accounted for 17.7% of the enquiries in 2020 compared with 5.2% in 2019. In absolute terms, this meant a total of 2,050 enquiries in 2020, compared with 440 enquiries in 2019.

**Figure 3.2.1.20. Distribution (%) of intoxications due to phytosanitary products**

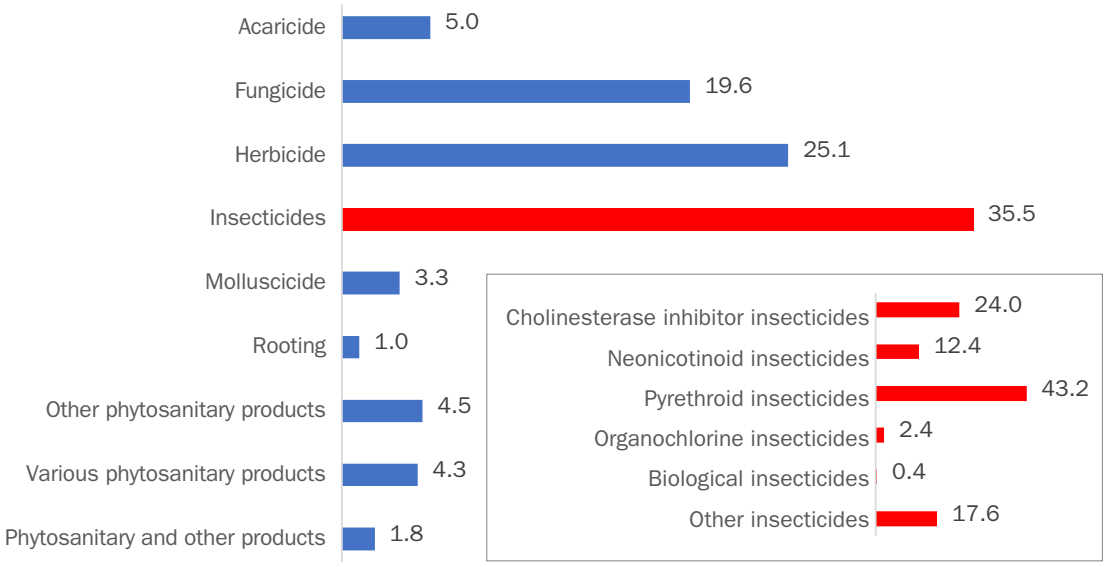
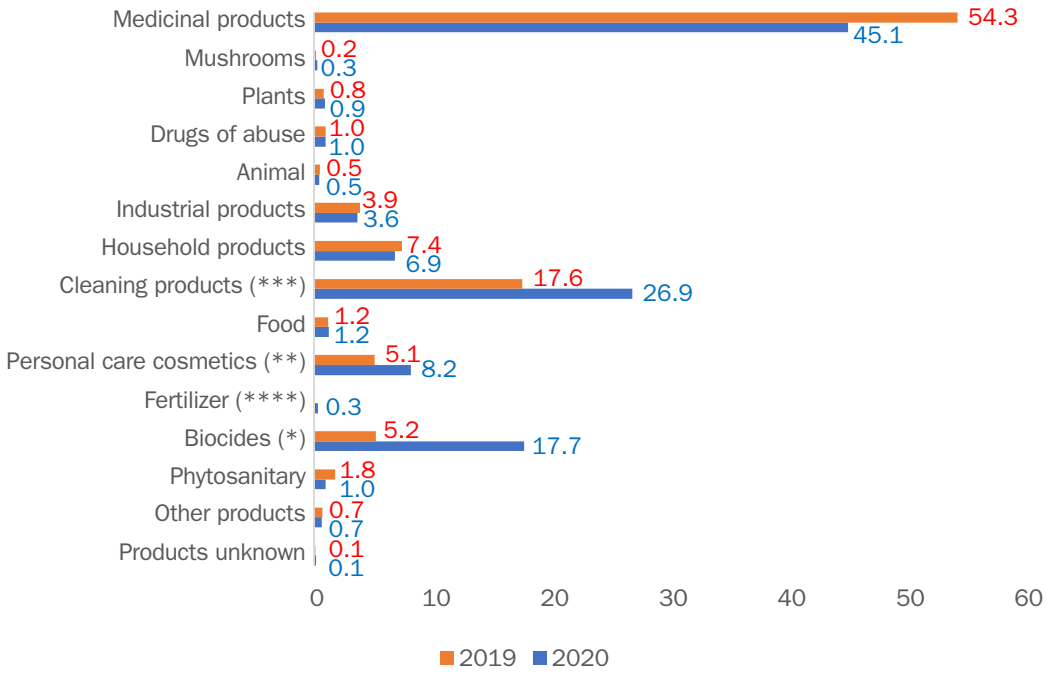



**Figure 3.2.1.21. Comparative distribution (%) of the type of product responsible for the intoxications**




(*) Biocides including surface disinfectants (bleach, etc.) and personal hygiene (hydrogels).
(**) Cosmetics including biocides for personal hygiene (hydrogels).
(***) Cleaning products including surface disinfectants (bleach, and other disinfectants).
(****) In 2019 fertilisers are included in phytosanitary products.

With regard to bleaches, 4,548 enquiries were recorded for exposure to bleach in 2020 as the only toxic agent, compared with 2,251 enquiries in 2019. Another important aspect was the high number of calls for exposure to bleach combined with other products (2,179 enquiries). Noteworthy among the products that were mixed with bleach are ammonia (52.8%), hydrochloric acid (17.1%), limescale removers (8.4%), other disinfectants (4.7%), dishwasher products (4.0%), WC cleaners (2,3%), household cleaners (1,9%), floor cleaners (1,7%), degreasers (1,5%) and unblockers (1,1%).

### *3.2.2. Enquiries regarding intoxications in animals*

In 2020, a total of 2,089 enquiries regarding intoxications in animals were recorded.

The corresponding figures with the different epidemiological variables studied and the percentages obtained are shown below.

**Figure 3.2.2.1. Distribution (%) by Autonomous Communities of enquiries regarding intoxications in animals**

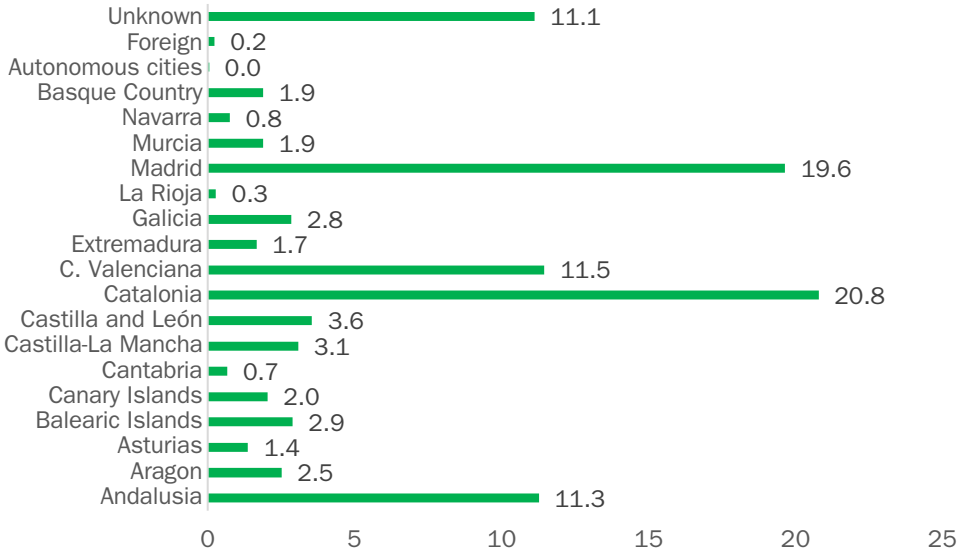


**Figure 3.2.2.2. Monthly distribution (%) of enquiries regarding intoxications in animals**

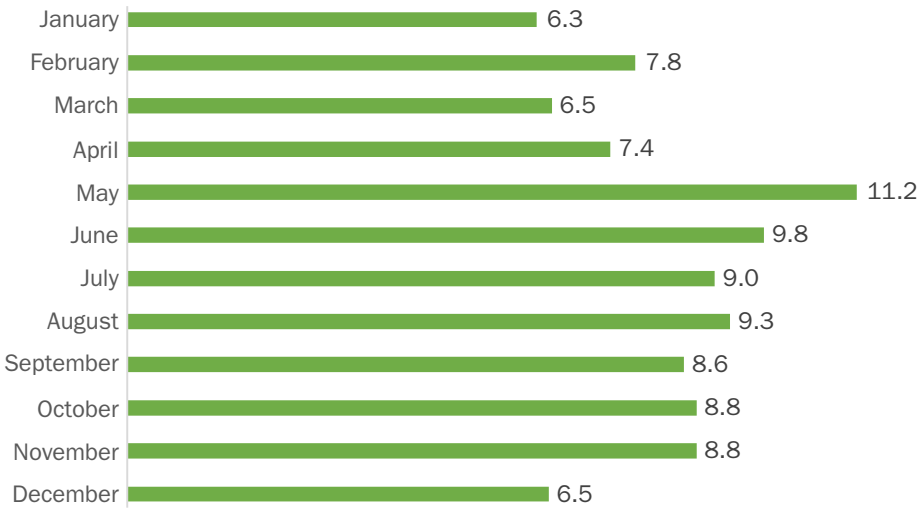
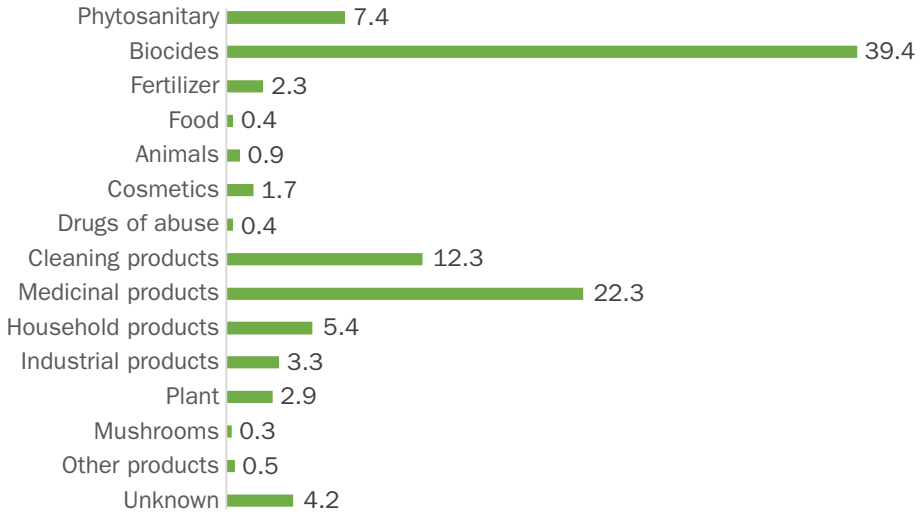



**Figure 3.2.2.3. Distribution (%) by type of product involved in poisonings in animals**




The type of product most frequently involved in intoxications in animals is biocides (39.4%). Noteworthy among this type of product is the group of insecticides, at 43.6%, as shown below in Table 3.2.2.1.

### Table 3.2.2.1. Distribution (%) of the type of biocide involved in intoxications in animals

| | |
|---|---|
| Skin hygiene | 0.4 |
| Surface disinfectant | 8.5 |
| Water treatment | 0.1 |
| Wood treatment | 0.4 |
| Rodenticide | 42.0 |
| Insecticides | 43.6 |
| Insect repellents | 3.7 |
| Unaffiliated | 0.6 |
| Various biocides | 0.2 |
| Biocides and other products | 0.5 |

### Table 3.2.2.2. Distribution (%) of the type of medicinal product involved in intoxications in animals

| | |
|---|---|
| Alimentary tract and metabolism | 10.4 |
| Blood and blood forming organs | 1.9 |
| Cardiovascular system | 5.9 |
| Dermatological | 13.6 |
| Genitourinary system and sex hormones | 8.9 |
| Hormonal system (exc. sex hormones) | 3.6 |
| Systemic anti-infectives | 7.0 |
| Antineoplastics | 1.1 |
| Nervous system | 19.3 |
| Musculoskeletal system | 7.4 |
| Antiparasitic products | 1.3 |
| Respiratory system | 5.9 |
| Sensory organs | 3.4 |
| Various (other types of medicinal products) | 0.0 |
| Medicinal products without affiliation | 0.4 |
| Combination of various medicinal products | 1.9 |
| Phytotherapy | 0.4 |
| Magistral formulas | 0.0 |
| Homeopathy | 0.4 |
| Medicinal products for veterinary use | 6.2 |
| Nutritional supplements | 0.8 |

According to Figure 3.2.2.3, medicinal products are responsible for 22.3% of intoxications in animals. Particularly important are those related to the nervous system, with 19.3%.

The distribution with respect to the type of person requesting information among the enquiries regarding intoxications in animals is shown below, with those made by private individuals as the predominant type (58.5%).

**Table 3.2.2.3. Distribution (%) of the type of person requesting information in intoxications in animals**

| | |
|---|---|
| Veterinary clinic | 35.8 |
| Private individual | 58.5 |
| Unknown | 5.7 |

### *3.2.3. Enquiries regarding requests for information*

There were 6,559 telephone enquiries related to requests for a range toxicological information, and not related to toxic exposures or intoxications.

The corresponding tables with the different epidemiological variables studied and their percentages obtained are highlighted below.

**Table 3.2.3.1. Distribution (%) by type of product involved in the information request**

| | |
|---|---|
| Unknown | 1.8 |
| Other products | 0.4 |
| Mushrooms | 0.2 |
| Plants | 0.2 |
| Animals | 0.2 |
| Food | 0.9 |
| Drugs of abuse | 0.4 |
| Industrial products | 1.5 |
| Household products | 1.3 |
| Medicinal products | 83.3 |
| Cleaning products | 7.8 |
| Cosmetics | 0.6 |
| Phytosanitary products | 0.3 |
| Biocides (*) | 6.3 |
| (*) Including surface disinfectants (bleach, etc.) and personal hygiene (hydrogels). | |

Particularly noteworthy were the enquiries related to information on medicinal products (83.3%), in which there had been no previous potentially toxic exposure to any drug. The main reason for consulting the SIT is to clarify doubts related to medication, normally prescribed by other doctors.

It should be pointed out that, due to the health situation suffered and the lockdown, there was hardly any possibility of access to the corresponding health professional, with the SIT being a source of health information used by the general public.

The distribution and reasons for this type of telephone request for information on drugs are detailed below.

**Table 3.2.3.2. Distribution (%) by type of enquiry regarding information on medicinal products**

| | |
|---|---|
| Side effects | 29.6 |
| Drug dosages | 22.6 |
| Drug interactions | 9.3 |
| Expired medication | 3.9 |
| Therapeutic indications | 3.3 |
| Allergic reaction | 3.1 |
| Preparation | 1.6 |
| Identification | 1.2 |
| Contraindications | 1.0 |
| Breastfeeding | 0.9 |
| Teratogenesis | 0.9 |
| Preservation of medicinal products | 0.8 |
| Prevention | 0.7 |
| Adverse reaction | 0.5 |
| Toxic dose | 0.3 |
| Other pharmacological enquiries | 19.6 |

Particularly noteworthy were the questions raised about the side effects of medicinal products, as well as requests for information on the dosage of medicinal products and drug-drug interactions.

### *3.2.4. Enquiries not related to chemicals or natural toxins*

5,959 enquiries were received in 2020 that cannot be listed by information or by exposure to any potentially toxic agent. The distribution by type of call is as follows:

**Table 3.2.4.1. Distribution by reason for enquiry not related to chemicals**

| Reason for enquiry | No. |
|---|---|
| Food | 55 |
| INTCF | 294 |
| INT: Sending samples | 28 |
| INT: SIT personal call | 71 |
| INT: Other | 17 |
| INT: Other court phone | 1 |
| INT: Asking for another INT section | 75 |
| INT: Request for information | 29 |
| INT IT (informatics) | 73 |
| Medical | 1.172 |
| Others | 4.284 |
| Others: Phone number check | 92 |
| Others: Wrong number | 949 |
| Others: Unanswered call | 1.965 |
| Others: Media | 2 |
| Others: Psychiatric patient | 98 |
| Others: Question for the manufacturer | 64 |
| Others: Repeating the call | 197 |
| Others: The call was interrupted | 769 |
| Others: Joke | 24 |
| Other | 124 |
| Unknown | **154** |
| General total | **5.959** |

These enquiries, despite not being linked to the role of the SIT, relating to providing toxicological information, do have an impact to be noted in the regular work of the Service, and have therefore been taken into account in this report.

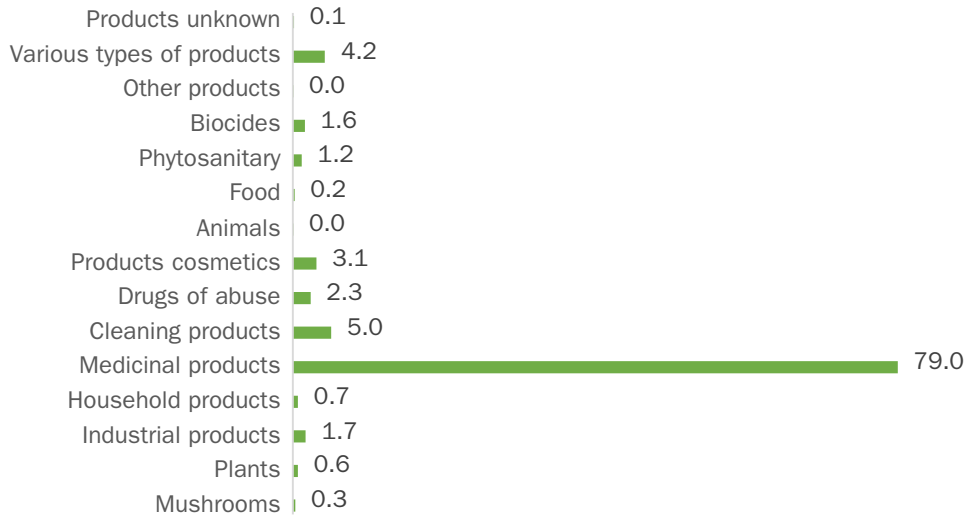
In this regard, particularly noteworthy are 1,172 medical enquiries in which our service was available to cover the lower activity of the health professionals of the different emergency, primary or specialised care services as a result of the pandemic.

### *3.2.5. Intentional intoxications*

Extending the information on all recorded intoxications, a separate heading is needed for intentional intoxications, which account for 9.7% of the total (see Figure 3.2.1.6), as in the previous year. 93.6% of these intoxications are by ingestion. Particularly noteworthy

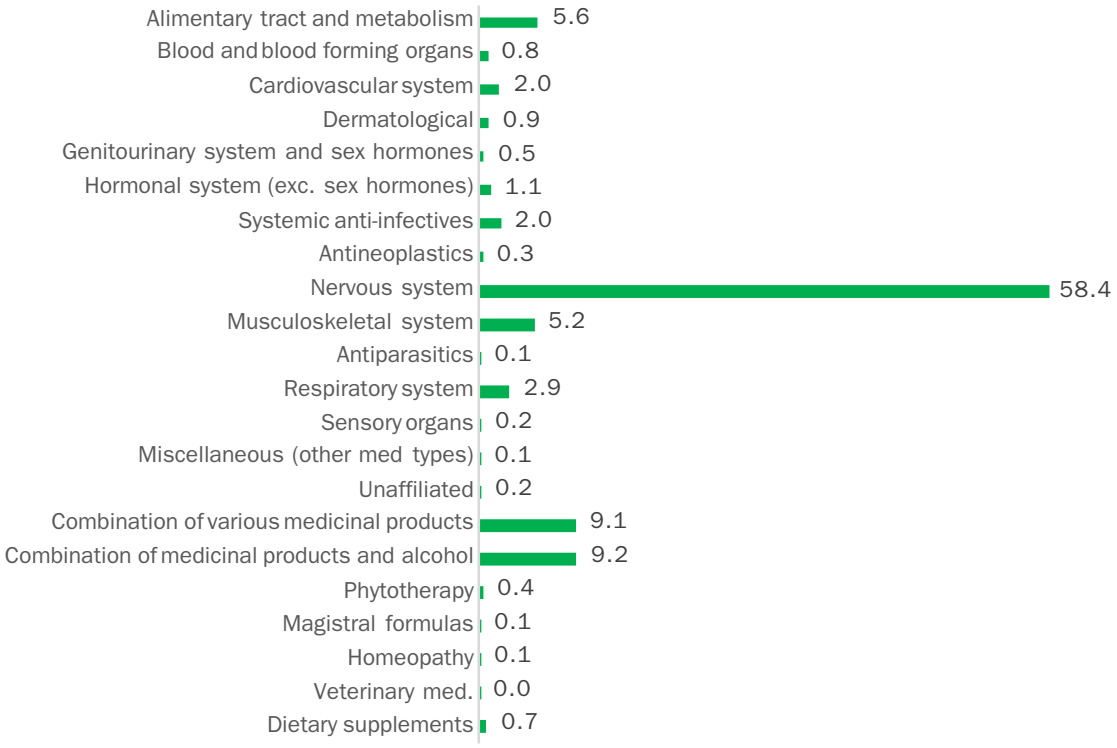
are those caused by medicinal products, which account for the majority (79%), as reflected below, followed far behind by those related to cleaning products (5%).

**Figure 3.2.5.1. Distribution (%) by type of product in intentional intoxications**




Among the medicinal products, those related to the nervous system according to the ATC classification predominate, with 58.4% of the cases.

**Figure 3.2.5.2. Distribution (%) by type of medicinal product in intentional intoxications**



Their distribution reflects a clear statistical increase in adults, especially in the age groups from 20 years onwards and with a peak number of cases at 40 years, and mostly in women.

**Table 3.2.5.1. Distribution (%) by age group of intoxicated persons in intentional intoxications**

| | |
|---|---|
| Child < 2y | 1.3 |
| Child > 2y | 10.7 |
| Adult (> 15y) | 87.2 |
| Various | 0.1 |
| Unknown | 0.7 |
| General total | 100.0 |

**Figure 3.2.5.3. Distribution (%) by age of the intoxicated person in intentional intoxications**

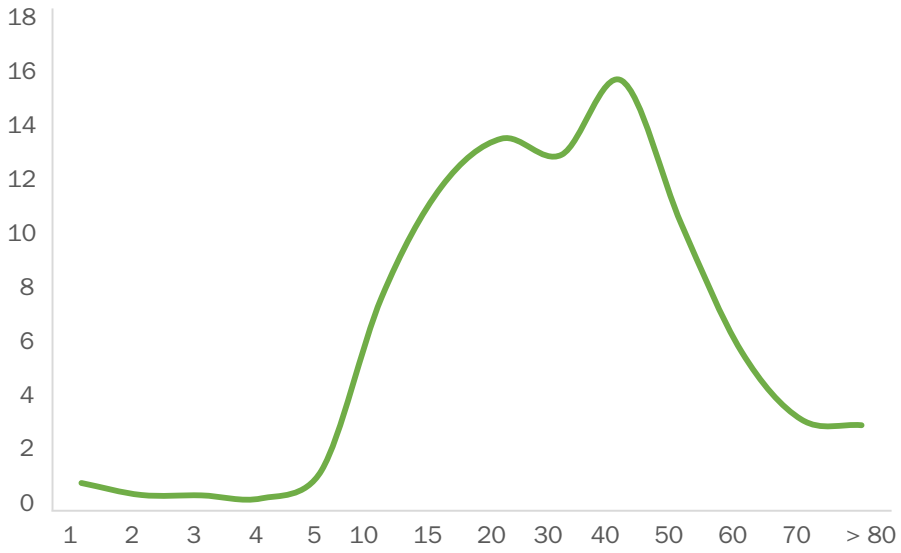
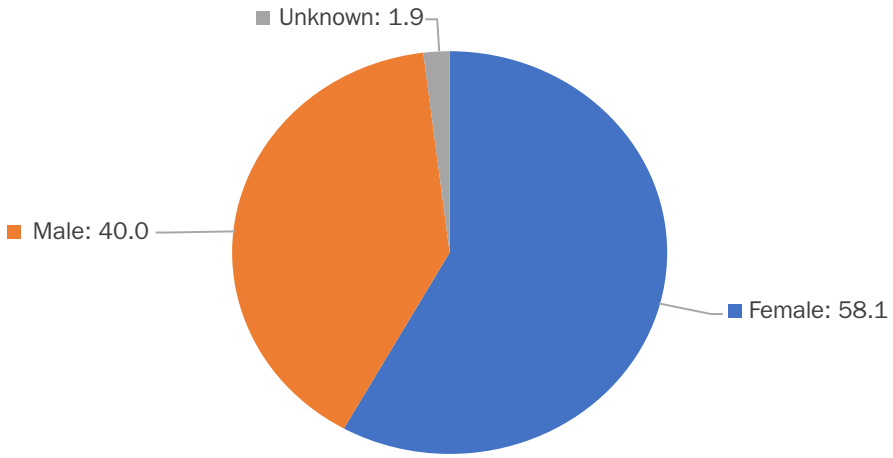


**Figure 3.2.5.4. Distribution (%) by sex of the intoxicated person in intentional intoxications**




### *3.2.6. General conclusions to the statistical data*

Over 2020, the SIT handled **85,283 telephone enquiries**, which represents an increase of almost 7 % compared with previous years (average of 80,000).

Despite the health crisis and pandemic caused by the SARS-CoV-2 virus, SIT's telephone service for users and companies was not undermined and it was not affected by the unexpected and rapid adaptation of its entire workforce to **teleworking**.

The number of **enquiries due to intoxications and toxic exposures in humans** recorded in 2020 was 70,676, surpassing those of previous years.

Coinciding with the outbreak of the pandemic, the main **monthly distribution** of intoxications in humans corresponds to March, April and May.

The predominant **requester of information** in the enquiries due to these intoxications is the user without specific healthcare training, with 69.4 %, with healthcare staff accounting for 29.8 %.

The main **route of entry** of toxic exposures or intoxications in humans is ingestion (78.3 %), followed by inhalation (9.6 %), which has risen compared with the average of previous years and is related to the overuse of cleaning products and their mixtures.

The predominant **type of intoxicated person** is an adult (56 %), a higher percentage than in previous years.

Regarding **sex and age**, the highest incidence of intoxications is in children aged 2 years (7.5 % boys, with 6.2 % in girls). In contrast to this data, in adults, the higher percentage was recorded in women between 40-49 years of age (4.9 %) as compared with men (3.2 %).

The **estimate of the severity** of intoxications in humans has been interpreted between moderate and severe in 20.7 % of the enquiries recorded, similar to previous years.

With regard to the **type of product**, intoxications due to medicinal products continue to predominate (45.1 %). However, there has been an increase of 201.9 % compared with the previous year in the enquiries recorded due to toxic exposures to biocides (such as hydrogels, surface disinfectants and bleaches), as well as an increase in intoxications due to cleaning products (26.9 %), particularly bleach and its mixtures with other cleaning products. This is explained by the general intention of eliminating the SARS-CoV-2 virus.

The **enquiries due to intoxications in animals** totalled 2,089, with the type of product most involved being biocides (39.4 %, including insecticides – 43.6 % – and rodenticides – 42.0 %), followed by medicinal products (22.3 %, including those related to the nervous system at 19.3 %). Most of the enquiries were made by private individuals (58.5 %).

There were 6,559 **requests for toxicological information** on a chemical product without intoxication. Particularly noteworthy were medicinal products at 83.3 % and in relation to side effects or dosage. These enquiries are explained by the fact that there is hardly any general access to health professionals in the pandemic, with the SIT offering its corresponding medical service.

A total of 5,959 **enquiries not related to chemical products or toxins** were received, including 1,172 medical enquiries.

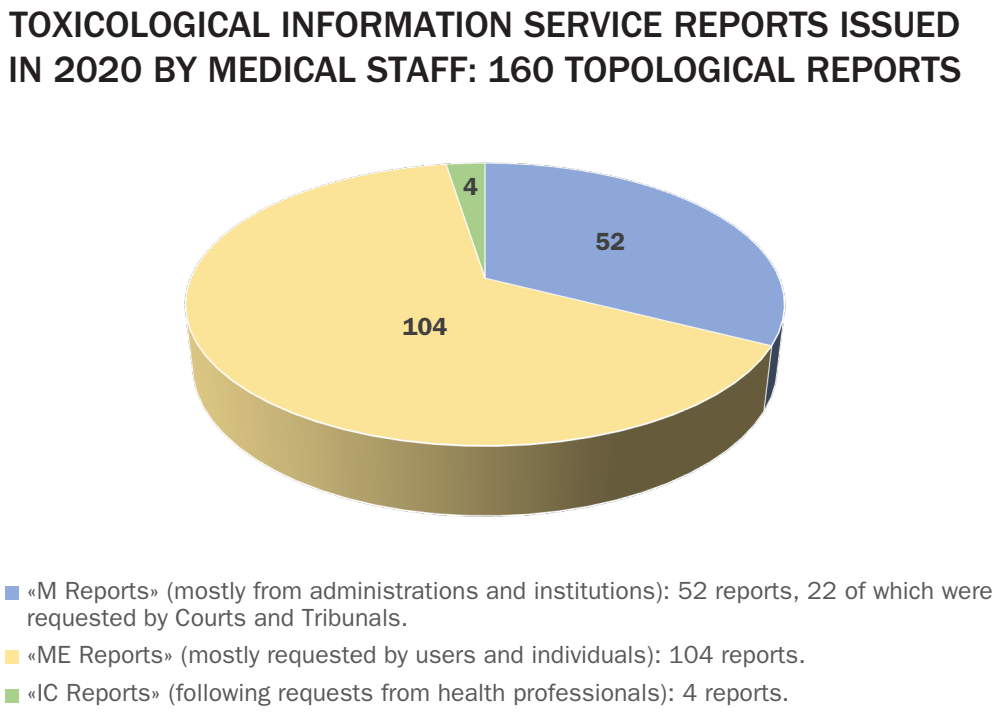
The distribution of **enquiries due to intentional intoxications** was similar to that recorded in the previous year (9.7 %) and mostly caused by the ingestion of medicinal products (79 %). The highest age incidence is around 40 years old, and predominantly in women.

# 4. REPORTS ISSUED BY THE SIT

## 4.1. Reports issued by medical staff

Over 2020, the medical staff issued 160 toxicological reports. The classification of the reports issued is determined according to the request or the issue raised, being internally classified as M, ME or IC Reports.

Figure 4.1.1. Distribution of reports issued by medical staff




In the case of «M Reports», these are opinions submitted after a detailed study of a requested subject, usually from the Department of Justice or from other institutions.

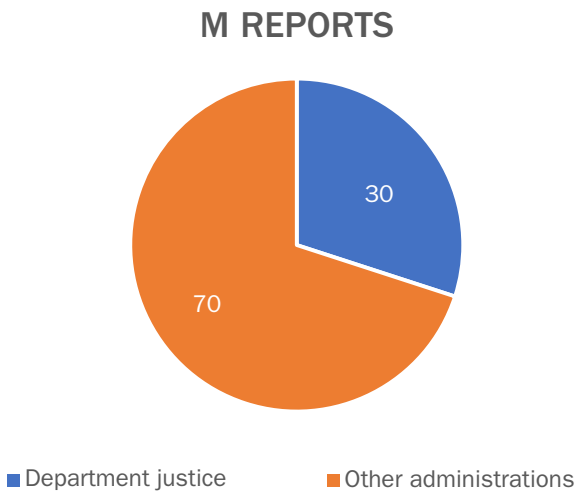
A total of 52 reports were drawn up and issued following requests formally made by orders from Courts and Tribunals for the expert assessment of certain cases (22 reports), as well as requests from other administrations, institutions or individuals. They require detailed preparation by the physicians as requested, with such requests assigned consecutively.

Regarding «ME Reports», these are documents submitted by email early as a request for information through the institutional mail that do not require a particularly detailed toxicological assessment.

A total of 104 reports were drawn up and issued following requests mainly made by users and individuals and where the Head of the Service responds by email promptly to the request made by the general public.

Regarding «IC Reports», these are responses to requests from healthcare professionals with regard to a case of intoxication where the requester supplementary information is sent by email. Four informative responses were issued in 2020.

**Figure 4.1.2. Distribution (%) of M reports (opinions issued after specific study)**




As M reports to be highlighted, the following are of special interest:

### M20 – 04400. Karkoubi

At the request of the Health Area of the Government Delegation in Aragon, in reference to an investigation by the Guardia Civil after seizing pills to make a new drug known as «red pills». The report concludes that the mixture of hashish with the drug clonazepam, or other psychotropic substances, has generated a new nomenclature known as «karkoubi». Its consumption is not significant in Spain, although it is prevalent in North Africa.

### M20 – 03251. Cathinones and Minimum Psychoactive Dose

At the request of Court No. 37 of Madrid, in reference to determining whether the amount of cathinone seized exceeds the minimum psychoactive dose. The report concludes that the concept of the minimum psychoactive dose of any drug is the minimum amount that produces any effect on the central nervous system, and therefore the minimum appreciable. It adds that this concept is not related in general terms to the harm caused by its consumption.

### M20 – 06388. Cocaethylene

At the request of Court No. 2 of Navalcarnero, in reference to the impairment of mental abilities after the consumption of alcohol and cocaine to carry out suicide by hanging. The report prepared by the SIT concludes that the knowledge and corresponding interpretation of the levels of these drugs in the deceased allow to infer that their mental capacities were sufficiently preserved to proceed with the hanging itself.

## 4.2. Reports issued by the Documentation Section staff

The Documentation Section resolves the incidents and queries that the chemical companies have, both from the legislative point of view and the procedure established to make notifications to the INTCF. At the same time, it gives technical support for the management of the IT applications developed as a result of new technologies of the Ministry of Justice. These enquiries are received from national and international companies that contact the Documentation Section by phone or email. They are handled rapidly, making a resolution follow-up.

Over 2020, the Documentation Section issued 3,747 reports, in response to requests for information from companies in the chemical sector. This figure reveals an increase of over 140% in the number of enquiries compared with the previous year. This increase takes place especially in the months of November (15.2%) and December (14.5%), probably due to the proximity of the entry into force of the new harmonised regulation on notifications of chemical mixtures on 1 January 2021 (Figure 4.2.1).

In the months of March and April, in which activity throughout Europe was marked by the pandemic, there was a significant decrease in the number of enquiries received in Documentation. However, the Section maintained its activity using teleworking in order to quickly resolve enquiries from the Spanish chemical sector (Figure 4.2.1).

The reports managed by the SIT Documentation Section come mainly from Catalonia (22.9%), Valencia (12.2%) and Madrid (11.9%). We should also highlight the requests for information from other member states, consulting their doubts regarding the procedure laid down in Spain for notifications of mixtures classified as hazardous that are marketed in our country, which accounted for 26.8% of the requests for information registered in the Documentation Section in 2020 (Figure 4.2.2).

**Figure 4.2.1. Monthly distribution (%) of requests received in the Documentation Section**

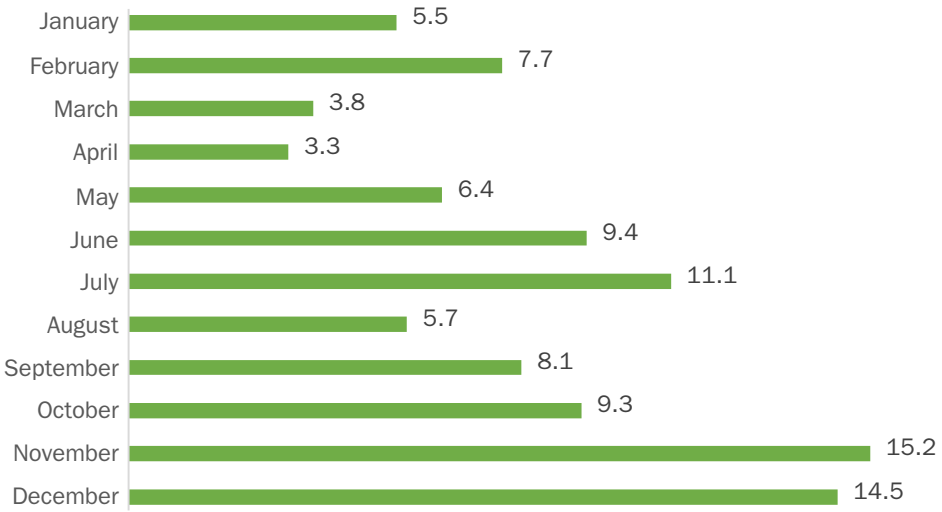
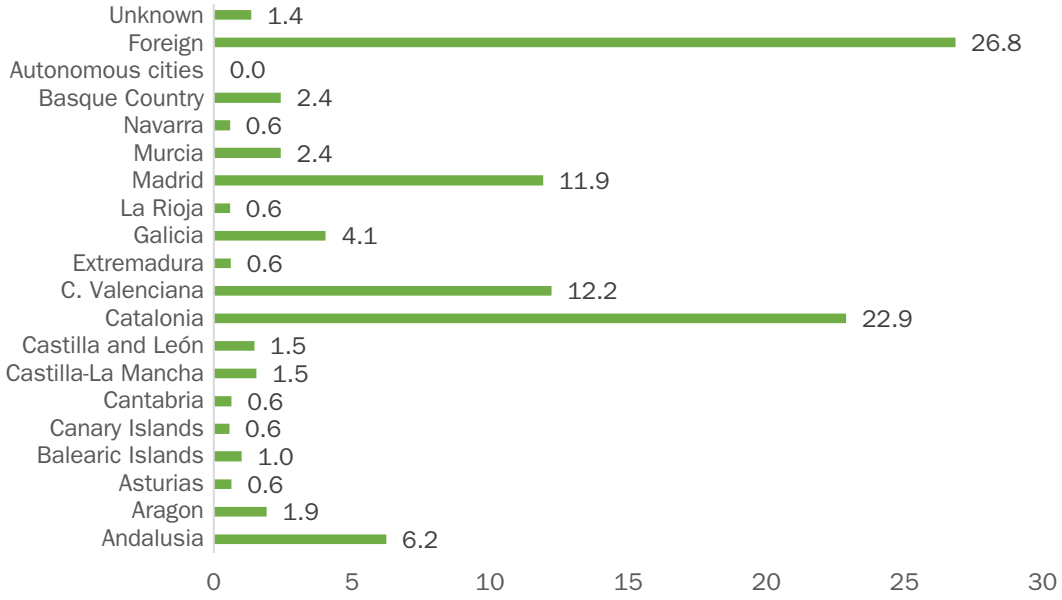



**Figure 4.2.2. Distribution (%) by Autonomous Communities of the information requests recorded**



# 5. ACTIVITIES OF THE DOCUMENTATION SECTION

In addition to its medical staff, the SIT has a Documentation Section, made up of physicians with academic training in the biomedical area who perform the functions of preparation, revision and maintenance of the database of this Service. This includes the information on the composition, toxicity and hazard rating of the products marketed in Spain that have been notified to the INTCF by companies in the chemical sector, in compliance with current legislation, so that the medical staff of the SIT can issue an appropriate health response in the event of potentially toxic exposure to any of these mixtures.

During this year, the Documentation Section has also been forced to adapt to this situation arising from the SARS-CoV-2 pandemic, managing the information sent by companies, as well as all enquiries about the procedure that they must comply with in relation to current regulations through teleworking, contacting the company that makes the enquiry within 24 hours for its corresponding resolution.

On an exceptional basis, in the first months of the pandemic, the cleaning products sector detected a significant problem in obtaining some raw materials necessary for the manufacture of its products (window cleaners, floor cleaners, etc.), since they were diverted towards the manufacture of surface disinfectants and hydroalcoholic gels for hospital use. This made it difficult to manufacture and market products for cleaning surfaces (floors, glasses, tiles, etc.), which contained these raw materials, which on the other hand were highly demanded by society in its need to clean and sanitise the home. A toxicological study was performed of the chemical substances that, according to the industry, could replace the raw materials diverted to other sectors so as to authorise safely and quickly the substitution of these in cleaning products, reducing the usual administrative burdens and speeding up regulatory procedures, given the exceptional situation in which we found ourselves as a consequence of Covid-19.

## 5.1. SIT notification procedure

Throughout this year, the study and development of the computer system started in previous years continues, in collaboration with the Subdirectorate General for Territorial Organisation and Coordination and the Subdirectorate General for New Technologies of the Ministry of Justice, which has made it possible to include the 40,326 mixtures notified by the Spanish and European chemical industry in the INTCF database (called Fichas SIT= FSIT), throughout this year.

The SIT Notification procedure (SRE System) enables intercommunication between companies and the INTCF by means of a system of sending information through an encrypted file with the required information online and in compliance with the regulations for notifying the INTCF to which they are obliged under the Law 8/2010, of 31 March.

During 2020, work continued to develop the procedure for adapting to the European Harmonisation Project led by the European Chemicals Agency – ECHA, for the implementation of a centralised platform on toxicity data of all substances declared as hazardous by the Chemical Industry in the countries of the European Union, which should enter into force on 1 January 2021. In this process, and in spite of the existing difficulties resulting from the pandemic caused by COVID-19, the Documentation Section has continued to participate in several various working groups set up with the aim of establishing a harmonised notification procedure throughout the European Union, which began in 2010 and is due to end in January 2021.

Given the special characteristics of this year, the INTCF's collaboration in the working groups consisted especially in the participation in Webex and issuance of technical reports, allowing continuation of the work started in 2010, and finalising the development of the specific IT application for notifications of hazardous chemical mixtures to the designated bodies in each Member State, and the European portal of the ECHA, to be sent to all Member States in which the chemical mixture is marketed. This will be available on the date laid down in the legislation (1 January 2021). The working groups in which members of the Documentation Section have participated are as follows:

- IT Tools WG: Working group for the development and revision of the IT application developed by ECHA for preparation of the export file and a harmonised format for the whole European Union (PCN format).
- Guidance WG: Working group for the adaptation of the ECHA Guidelines to the legal regulations (Annex VIII of the CLP Regulation and Art. 25 of the CLP Regulation itself).
- Validation Rules (VR) WG: Working group for the development and revision of the rules for the validation of notifications submitted by the chemical industry.
- PCN Data Base WG: Working group for the design and revision of the ECHA central database.
- Expert Group for the final review of the Guidelines (PEG): Working group appointed by the competent authority of CARACAL (in Spain the Ministry of Health).

Once implemented throughout the European Union, this harmonised notification process will allow the chemical industry to notify in all countries where it markets a mixture classified as hazardous in the same electronic format and with the same information in all European Union countries.

Article 45 of the CLP Regulation establishes the need to harmonise the information to be submitted by the chemical industry to the designated bodies in each Member State to provide the health response. This need has made it necessary for a significant effort to be made by the industry, the designated centres (in Spain, the INTCF) and the European Commission, as a moderator and arbitrator of these meetings, to define the essential needs and the notification procedure. This has resulted in publication of Annex VIII of the

CLP Regulation in Commission Regulation (EU) 2017/542 of 22 March 2017 and its two delegated regulations: Commission Delegated Regulation (EU) 2020/11 of 29 October 2019 and Commission Delegated Regulation (EU) 2020/1677 of 31 August 2020.

This harmonisation must be completed by 1 January 2021, on which date all the tools necessary for notification of products for consumer and professional use must be available free of charge, collaborating in:

- Development of the computer program that will allow notification of the information, including the chemical composition of all the classified mixtures, which could be dangerous because of their impact on health and physical effects.
- Development of the rules for validation of the information to be sent by the chemical industry to the ECHA.
- Development of the European Notification Portal, sharing the INTCF's experience in the online notification system (SRE System) that already exists in Spain.
- Preparation of practical guides (Guidances), with participation in the working groups and subgroups established in the European Commission to interpret the legal regulations regarding notifications to the designated bodies in each Member State.
- Participation in the «Workability study concerning implementation of Annex VIII of CLP», to study the notification to the designated bodies regarding information received from certain sectors of the chemical industry that present a special casuistry when implementing the European CLP Regulation.
- Toxicovigilance and prevention of intoxications, continuing with the collaboration of the INTCF in the harmonisation of the product type categories used by all Member States in notifications to poison centres, with the aim of toxicological oversight and prevention of poisoning at European level.
- Implementation of the Unique Formula Identifier (UFI) that the companies will have to incorporate into the labels of the products they market through the «Workshop on the study on analysis, development and testing of the Unique Formula Identifier (UFI) for information to be submitted to poison centres, according to article 45 (4) of EC regulation No 1272/2008 (CLP regulation)».
- Preparation of reports requested by the ECHA, following requests for extraordinary reports in relation to certain aspects of notifications that have been responded to, based on the INTCF's experience.
- Preparation of reports requested by the Ministry of Health for meetings on the harmonisation of European legislation (CARACAL), collaborating with numerous reports for the competent Spanish authorities (Ministry of Health, Consumer Affairs and Social Welfare) in order to document the issues addressed in the meetings with the European Commission in Brussels.

- Collaboration with reports requested by the Ministry of Health for meetings held with European Commission in order to draw up amendments to Annex VIII to the CLP Regulation (REACH Committee).
- Presence at the REACH CLP interministerial meeting for discussion of the consultations arising from the implementation of the REACH and CLP Regulations to the industrial sector is regulated by this legislation, in representation of the Ministry of Justice.
- Development of reports for the working group of the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT), reporting the criteria and Spanish experience in the notification process of hazardous chemical mixtures to the INTCF.

### 5.2. Companies registered in the Company Relations System (SRE) in 2020

This year, 725 new companies joined the Company Relations System (SRE) in order to notify the mixtures they sell on the Spanish market and to enable SIT emergency doctors to provide a health response to exposure to the mixtures available in Spain. These were added to the company's already existing in the online notification system (SRE System) to give a total of 5,148 companies authorised to send notifications to the Institute.

Of these new companies, 40.4% were SMEs, mainly micro-enterprises incorporated with fewer than 10 workers (24.8%) (Figure 5.2.1), maintaining the same distribution as in previous years.

Particularly important with regard to the territorial distribution of the new companies registered in the online notification system in 2020 are the companies located in the regions of Catalonia (17.2%), Madrid (12.1%), Andalusia (10.3%) and Valencia (8.3%) (Figure 5.2.2).

More than a third of the new companies are based in the national territory (67.9%) while the remaining 32.1% are foreign companies, usually based in the European Union. The observed rise in foreign companies selling products in the Spanish market seen over previous years continues. They have risen from accounting for 17.7% of the company's recorded in 2017 to accounting for 32.1% in 2020.

Figure 5.2.1. Distribution (%) according to the size of the companies registered in SRE during 2020

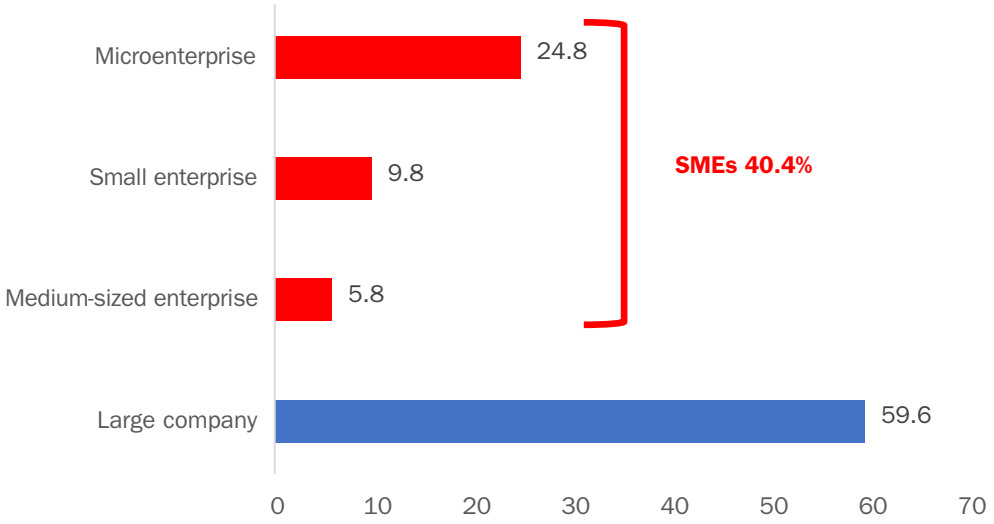
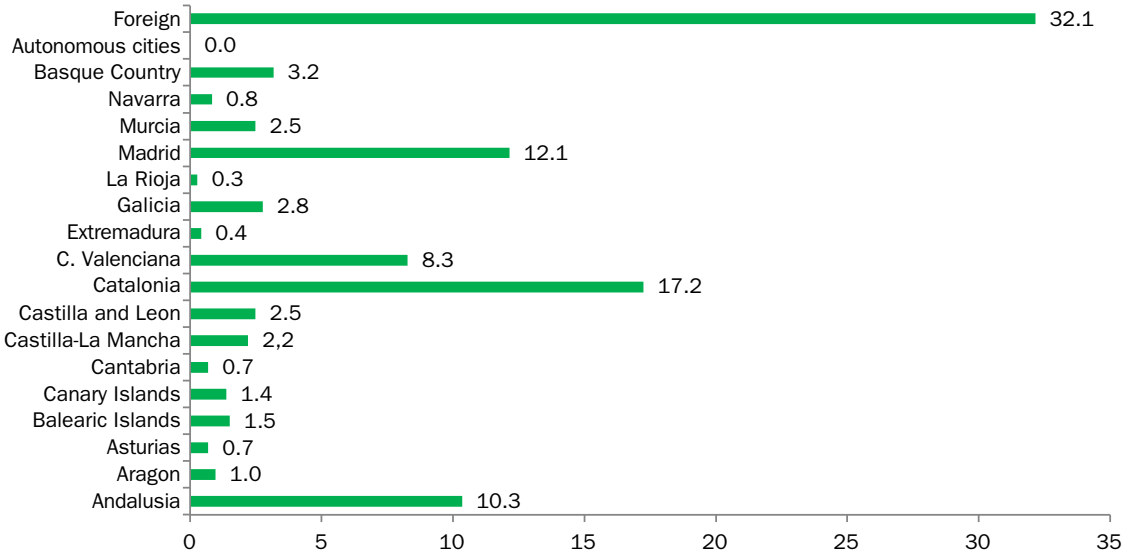



Figure 5.2.2. Distribution (%) by Autonomous Communities of companies registered in SRE during 2020



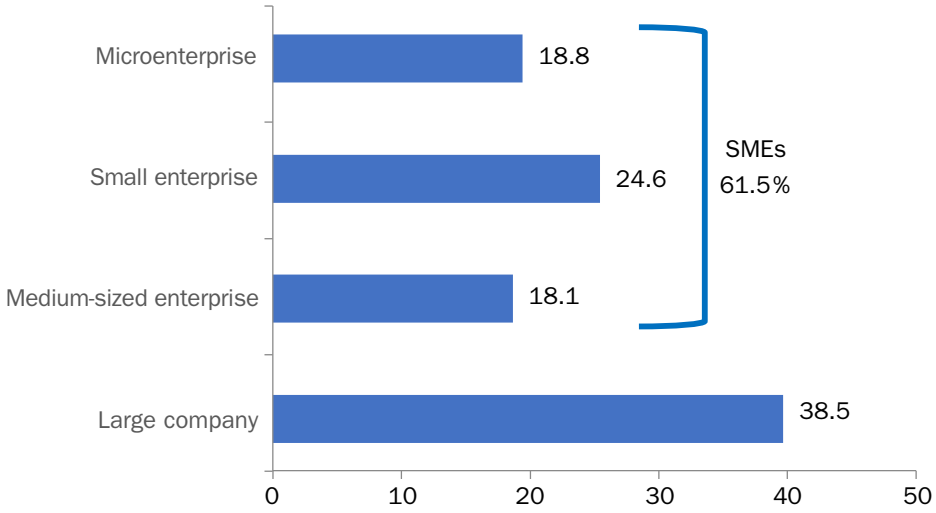

## 5.3. Maintenance of the SIT Sheet databases

The Documentation Section has registered 9,860 notifications from the 5,148 companies registered in the Company Relations System (SRE) and which are authorised to make

notifications of the products they market in Spain so that the SIT doctors can provide the relevant health response in the event of exposure to these mixtures.

A total of 40,326 products were reported in these 9,860 submissions during 2020 and 61.5 % of these mixtures are marketed by SMEs, as they make up a significant volume of the Spanish industrial network (Figure 5.3.1).

**Figure 5.3.1. Distribution (%) of notified products according to company size**




The following figure shows the distribution of the products notified in 2020 by Autonomous Communities. As in previous years, the high proportion of notifications made by companies from the Catalan, Valencian and Madrid Autonomous Communities is noteworthy. Despite being an atypical year, with little communication between EU countries, 9.8% of the notifications received at the INTCF were made by companies from another EU Member State (Figure 5.3.2).

The Documentation Section included 30,149 new products (75.3%) in the INTCF database that had not previously been notified to the INTCF. For each of these products, the complete composition of the mixture, hazard classification, physical characteristics, information on the labelling and safety data sheets, as well as other data that makes it possible to know the product toxicity and provide an immediate medical response to an enquiry with regard to potentially toxic exposure or intoxication with any of the products notified to the SIT, were incorporated into the SIT database (Figure 5.3.3).

Similarly, in 2020, the information on 9,112 products, previously notified to the INTCF, was updated due to changes in their composition, labels, safety data sheets, packaging size, etc., to ensure that the database contains valid and up-to-date information on the products being marketed in Spain.

Finally, 795 products have been removed from the SIT database because, according to the information sent by the company, they have ceased to be marketed in Spain (Figure 5.3.3).

**Figure 5.3.2. Distribution (%) of notified products according to regional distribution**

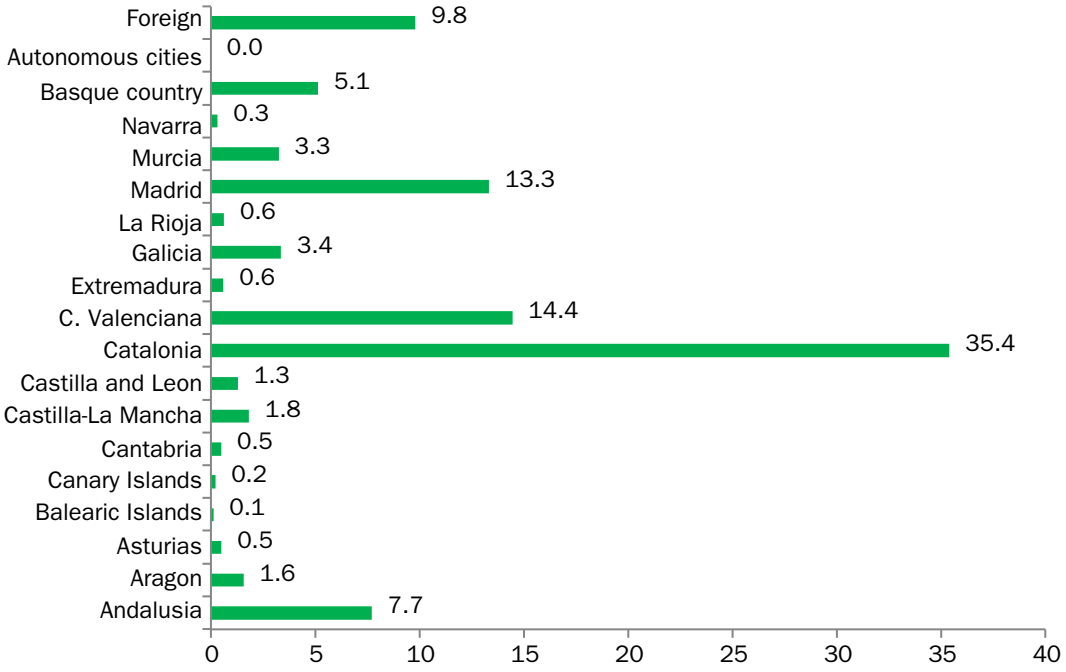
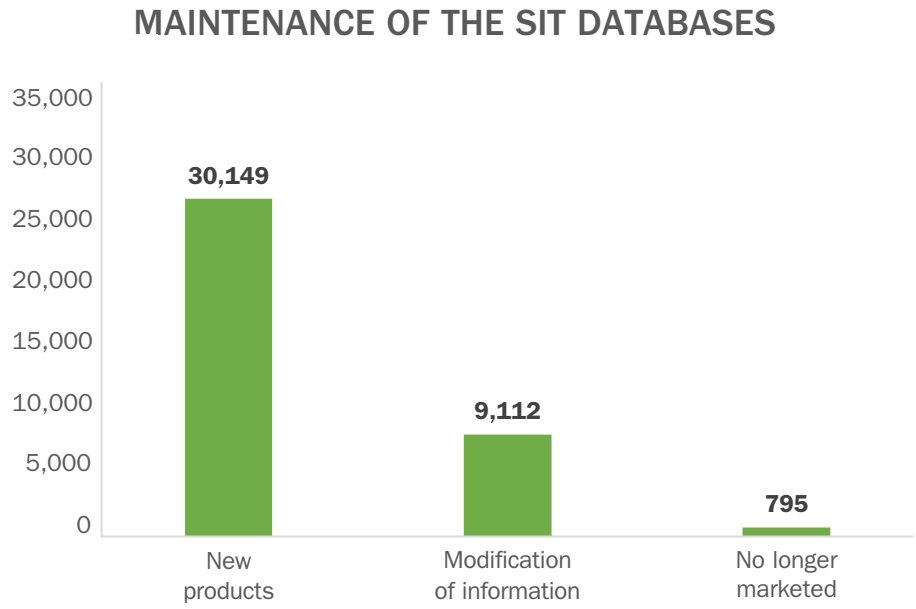



**Figure 5.3.3. Distribution by type of update of the SIT database**



# 6. SCIENTIFIC, EDUCATIONAL, AND DISSEMINATION IN MEDIA ACTIVITIES

## 6.1. Institutional collaborations

- Participation with the Coordinating Centre for Health Alerts and Emergencies (CCAES) of the Ministry of Health, Consumer Affairs and Social Welfare. BICTRA - Joint Action - Toxicity of electronic cigarettes. INTCF.
- Attendance at the ADELMA Technical Conference.
- Virtual participation through various webex with the European Chemicals Agency (ECHA).
- Elaboration of the questionnaire for the working group of the European Portal of Notifications (PCN database). Appointed Bodies and Poison Centres consultation plan.
- Virtual attendance at the working group meetings organised by the Member States communicators network (ECHA).
- Collaboration in the Med-Safety week campaign, promoted by the AEMPS.
- Various meetings with the Sub-Directorate General for Planning and Managing the Digital Transformation development team for the SIT Platform.
- Virtual attendance at meetings organised by ECHA's Notifications Portal (NCP).
- Development and preparation of the collaboration agreement with the Spanish Agency for Medicines and Health Products (AEMPS).
- EUROCIGUA - Working Group on Ciguatera Poisoning. Sending a report on the SIT casuistry.
- Spanish Confederation of Consumers and Users (CECU).
- Defence Toxicology Institute. Ministry of Defence.
- Scientific Committee for Health Products. Spanish Agency for Medicines and Health Products (AEMPS).

## 6.2. Research projects

«Detergent capsules - accidentology project (laundry, dishwasher and others)».

Collaboration with the International Association for Soaps, Detergents and Maintenance Products (AISE), SIT and other European Poison Centres.

Retrospective (2012 - 2016) and prospective (2017-2020) study of toxicovigilance to «accidental exposures of cleaning products in capsule form» (laundry, washers, and others), by

referring the number of cases of patients exposed to such cleaning products in that commercial format.

### 6.3. Scientific publications

- CI Vardavas, C Girvalaki, S Odani, A Alonso, R Martinez, JL Conejo et al. «Profile of incidental exposures to e-cigarette liquids in Europe, 2018-2019». Human and Experimental Toxicology 1-6. The Author(s) 2020. Article reuse guidelines: sagepub.com/journals-permissions.

### 6.4. Educational and training activities

Conejo JL. Speaker at the Clinical Session «The SIT and the INTCF: its institutional usefulness». Assembly Hall of the Infanta Leonor Hospital in Madrid. 22 January.

Ucha M. Collaboration in the campaign «Electronic cigarette, do you really believe that this does not harm your health?». European Network for Smoking Prevention (ENSP), Official College of Doctors, Official College of Pharmacists, Official College of Physiotherapists and Official College of Dentists and Stomatologists of Madrid. January.

Martínez Arrieta R. «New developments in the notification to Poison Centres», presented at the 2020 information session, organised by the Association of Detergent and Cleaning, Maintenance Related Products Companies (ADELMA). (Madrid). February 2020

Martínez Arrieta R. «Notification to the INTCF. Harmonised future», in the information session on the harmonised procedure of the notifications to poison centres. Organised by the Business Association for the Protection of Plants (AEPLA). (Madrid). March 2020

Martínez Arrieta R. «Notification to Poison Centres. Art. 45 CLP Regulation. Current situation and harmonised future». At the Information Session: The essentials on legislation for 2020. Organised by Soluciones Informáticas y Medioambientales (SIAM) and EPSON. Vitoria. April 2020

Martínez Arrieta R. «Basic principles in risk assessment» (2 hours). In the X Edition of the Private Qualification of Safety Assessment and Cosmetic Product Information File. Organised by the Faculty of Pharmacy of the University San Pablo CEU, National Association of Perfumery and Cosmetics (STANPA), Official College of Pharmacists of Madrid (COFM), Spanish Association of Pharmacists of the Industry (AEFI), Spanish Society of Cosmetic Chemists. On line. June 2020

Martínez Arrieta R. «Main factors in the safety assessment of cosmetics according to SCCSS recommendations» (2 hours). In the X Edition of the Private Qualification of Safety Assessment and Cosmetic Product Information File. Organised by the Faculty of Pharmacy of the University San Pablo CEU, National Association of Perfumery and Cosmetics

(STANPA), Official College of Pharmacists of Madrid (COFM), Spanish Association of Pharmacists of the Industry (AEFI), Spanish Society of Cosmetic Chemists. On line. June 2020.

Martínez Arrieta R., «Systemic toxicity of cosmetics today. The vision from a poison centre» (1.5 hours). In the X Edition of the Private Qualification of Safety Assessment and Cosmetic Product Information File. Organised by the Faculty of Pharmacy of San Pablo CEU University, National Association of Perfumery and Cosmetics (STANPA), Official College of Pharmacists of Madrid (COFM), Spanish Association of Industry Pharmacists (AEFI), Spanish Society of Cosmetic Chemists. On line. June 2020.

Conejo JL. Director of the Course «SIT Sheets Platform and management of IT tools for statistical processing of data collected in the Service». Organised by the Centre for Legal Studies as part of the Continuing Education Plan. On line mode. 6, 7 and 8 October.

Medical and forensic staff of the SIT. Course «SIT Sheets Platform and management of IT tools for statistical processing of data collected in the Service». Continuing Education Plan 2020 - CEJ. On line mode. 6, 7 and 8 October.

Lázaro Trueba I. Speaker on «Adaptation of Designated Bodies and Poison Centres to the European harmonisation process (Art. 45 of the CLP Regulation - Annex VIII)». In the course «SIT Sheets Platform and management of IT tools for statistical processing of data collected in the Service». Organised by the Centre for Legal Studies as part of the Continuing Education Plan. On line. 6 October.

Martínez Arrieta R. Speaker of the communication. «General structure and functionality of the SIT sheets Database and its interrelation in the different Catalogues: Products, Substances and Families». In the course «SIT Sheets Platform and management of IT tools for statistical processing of data collected in the Service». Organised by the Centre for Legal Studies as part of the Continuing Education Plan. On line. 6 October.

Agudo J, Conejo JL. Attendants to the course «New perspectives and review of analytical methods of ciguatera». EUROCIGUA. On line. 14 and 15 October.

De la Oliva S. Attendance at the course «Update in clinical and forensic toxicology», programmed within the Continuing Education Plan 2020 of the CEJ. 17 and 18 october.

Conejo JL. Attendees at the course «Update in forensic chemistry and toxicology. From the laboratory to the courts», programmed within the Continuing Education Plan 2020 of the CEJ. 19-23 October.

De la Oliva S. Speaker of the communication «Ozone in times of COVID-19» (de la Oliva S, Trompeta I, Mencías E). 24th Conference on Clinical Toxicology and 14th Conference on Toxicovigilance. Spanish Foundation of Clinical Toxicology. On line. 22 and 23 October.

De la Oliva S, Trompeta BI, Mencías E, Conejo JL. Attendees at the «24th Conference on Clinical Toxicology and 14th Conference on Toxicovigilance of the FETOC». On line,

accredited by the Commission for Continuing Education of the Healthcare Professions of the National Health System, with 0.3 credits. 22 and 23 October.

De la Oliva S. Attended the course «Multidisciplinary forensic studies of submersion deaths», programmed within the Continuing Education Plan 2020 of the CEJ. 3-5 November.

De la Oliva S. Assistant at the Course «The multidisciplinary investigation of sexual aggressions in forensic laboratories», programmed within the Continuing Education Plan 2020 of the CEJ. 10-13 November.

Conejo JL. Speaker of the communication «The Toxicological Information Service of the INTCF». Course «Informative introduction to the scientific and expert activity of the different INTCF Services». Continuing Education Plan 2020 - CEJ. On line. 18 November.

Medical and forensic staff of the SIT. Course «Informative introduction to the scientific and expert activity of the different INTCF Services». Continuing Education Plan 2020 - CEJ. On line. 16-18 November.

Lázaro Trueba I. «Implementation of Annex VIII _ Spain», in session: Poison Centre Notification: «POISON CENTRES - WHAT DOES ANNEX VIII MEAN?» of the NCEC (National Chemical Emergency Centre. UK). November 2020.

Martínez Arrieta R. «New developments of the harmonised notification process from 2021», in the informative Webinar on the new developments of the harmonised notification process from 2021, organised by the Association of Detergent and Cleaning, Maintenance Related Products Companies (ADELMA). On line. November 2020.

Martínez Arrieta R: «Regulatory developments in the notification of mixtures to the INTCFW». At the information session: Virtual Regulatory Update 2020 organised by The National Association of Perfumery and Cosmetics (STANPA). On line. November 2020.

Martínez Arrieta R, «Harmonised notification (Poison Centres). Current and future situation», in the Poison Centres training session. Organised by the Business Association for Animal Health, Nutrition and Welfare (ADIPREM). On line. November 2020.

Martínez Arrieta R. «Update of notifications to the INTCF, according to article 45 of CLP». Presented at the online training day New European procedure for notifications to Poison Centers. Organised by the Spanish Association of Chemical Trade (AECQ). On line. November 2020.

De la Oliva S. Attendance at the course «Forensic studies of injury agents and their effects on soft parts and bones», programmed within the Continuing Education Plan 2020 of the CEJ. 1-3 December.

Martínez Arrieta R. «New developments on Notification to INTCF of animal health products. CLP Regulation». In the Online Training Workshop Course on Animal Health, Diagnostics and Biocides in Animal Health. Organised by the Spanish Business Association of the Animal Health and Nutrition Industry (VETERINDUSTRIA). On line. December 2020.

Martínez Arrieta R. «New developments in the case of harmonised notification to poison centres, from 2021». Information session Update of the notifications to the INTCF according to Annex VIII, organised by the Chemical and Environmental Association of the Chemical Sector of the Valencian Community (QUIMACOVA). On line. December 2020.

## 6.5. Dissemination in media activities

### *6.5.1. Press releases*

The activities that have had the greatest impact this year, especially in terms of media coverage, have been those related to the three press releases prepared by the SIT and sent to the Communications Office of the Ministry of Justice for their corresponding dissemination. These press releases were prepared from the beginning of the SARS-CoV-2 pandemic and in relation to the significant increase in poisonings due to the mixing of cleaning products, the use of miracle mineral solution and hydroalcoholic gels during the months of the pandemic.

a) Regarding *intoxications due to the mixture of cleaning products*, especially with bleaches, a sudden increase of 1,655 enquiries was detected with respect to 2019 due to toxic exposures only during the month of March and the first two weeks of April. During that time a total of 11,337 enquiries were dealt with, an increase of 15% of the same period of the previous year. Of these enquiries, 1,846 were linked to the use of bleaches (mostly) and other surface disinfectants.

b) In reference to the *intoxications by the miraculous mineral solution or MMS*, these were monitored during the months of April to July with 26 telephone enquiries due to intoxications following their consumption. This is a very significant increase of this type of intoxication in Spain during the SARS-Cov-2 pandemic, because throughout 2019 only 8 enquiries were received with intoxications by this product, whose chemical compound is sodium chlorite at 28%.

c) Also noteworthy is the study carried out with 874 enquiries for *toxic exposures to hydroalcoholic gels* in the months of the pandemic compared with the 90 that occurred throughout 2019, with the majority of intoxications occurring in children under two years old.

These studies are an example of the toxicovigilance work carried out by all its staff, as a function of the poison centre to reduce the number of intoxications in the population. In a speech to the media by the Minister of Justice, Juan Carlos Campo, highlighted the work of the SIT during the health emergency.

### *6.5.2. Dissemination activities*

Following requests from the media and channelled through the Communications Office of the Ministry of Justice, the interventions carried out are detailed below:

TVE 1 - News. 14 April.

https://www.rtve.es/alacarta/videos/telediario/telediario-15-horas-14-04-20/5557311/

https://www.rtve.es/alacarta/videos/telediario/telediario-21-horas-14-04-20/5557548/

LA SEXTA - News. 14 April.

https://www.atresplayer.com/lasexta/noticias/noticias-2/abril-2020/14-04-20-el-fmi-preve-un-desplome-de-la-economia-espanola-del-8-por-el-coronavirus_5e95ffee7ed-1a822728e23ab/

CADENA COPE - News. 14 April.

https://s3-eu-west-1.amazonaws.com/kmplus-account-files/1409973/2020/4/14/K26KkhLpikuTg3I0ZJ97GA.mp4

https://www.cope.es/programas/mediodia-cope/audios/mediodia-cope-del-abril-2020-20200414_1073505

CONFILEGAL.COM - 14 April.

https://confilegal.com/20200414-aumentan-las-intoxicaciones-por-la-mezcla-de-productos-de-limpieza-a-raiz-de-la-pandemia-alerta-el-instituto-nacional-de-toxicologia/

EL ESPAÑOL.COM. 14 April.

https://www.elespanol.com/ciencia/salud/20200414/coronavirus-dispara-intoxicaciones-desinfectantes-nunca-debes-mezclar/482452068_0.html

LA MONCLOA PRESS. 14 April.

https://www.lamoncloa.gob.es/serviciosdeprensa/notasprensa/justicia/Paginas/2020/140420-toxicologia.aspx

ABC. 15 April.

«Almost 2,000 Spaniards have been poisoned by mixing disinfectants».

EL ECONOMISTA. 15 April.

«Toxicology receives a flood of enquiries in recent weeks».

EL PAÍS. 15 April.

«Poisonings due to mixing cleaning products are on the rise».

LA VANGUARDIA. 15 April.

«More intoxications due to the mixing of cleaning products».

EUROPA PRESS. EFE Newswire. 15 April.

«Household poisonings are on the rise due to the mixing of cleaning products».

IDEAL.ES DE GRANADA. 15 April.

https://www.ideal.es/sociedad/productos-limpieza-deben-mezclar-coronavirus-20200415113931-nt.html

CADENA COPE. Herrera en Cope. 15 April.

https://www.cope.es/programas/herrera-en-cope/herrera-en-cope-hora-completa/audios/herrera-cope-15-04-2020-20200415_1074854

CANAL SUR RADIO. News. 15 April.

Interview about the rise of intoxications due to the mixing of cleaning products.

CANAL SUR TV. News. 15 April.

http://www.canalsur.es/television/programas/noticias-1/detalle/3553792.html?video=1574345&sec=

CANAL EXTREMADURA TV. News. 15 April.

https://www.facebook.com/EXNdigital/videos/685331942257611/?sfnsn=scwspmo&extid=IvTZv9Pc5pPLOmJV&d=n&vh=e

CADENA COPE. Cope Andorra. 16 April.

https://www.cope.es/emisoras/cataluna/barcelona-provincia/barcelona/herrera-a-cope-catalunya-i-andorra/audios/instituto-nacional-toxicologia-detecta-aumento-intoxicaciones-por-mezcla-productos-limpieza-20200416_1076660

LA SEXTA. Al Rojo Vivo. 16 April.

https://www.atresplayer.com/lasexta/programas/al-rojo-vivo/abril-2020/16-04-20-pablo-iglesias-sanchez-y-yo-resolvimos-el-martes-acelerar-el-ingreso-minimo-vital-y-tenerlo-en-mayo_5e9846f87ed1a82284c51b92/

EL PAÍS. Report. 17 April.

https://elpais.com/elpais/2020/04/17/buenavida/1587101798_510059.html)

MALDITA.ES. Special edition Coronavirus. 17 April.

https://maldita.es/malditaciencia/20200417/edicion-especial-coronavirus-v-la-prueba-del-vinagre-ozono-y-el-peligro-de-mezclar-productos-de-limpieza-en-el-87o-consultorio-de-maldita-ciencia/

COMMUNICATION OFFICE OF THE MINISTRY. 17 April.

https://www.mjusticia.gob.es/cs/Satellite/Portal/es/ministerio/gabinete-comunicacion/noticias-ministerio/instituto-nacional5

ALCALA.HOY. News. 18 April.

https://www.alcalahoy.es/2020/04/18/el-cimpa-pide-prudencia-para-que-no-haya-intoxicaciones-de-animales-en-las-calles-recien-desinfectadas/

CANAL SUR RADIO. Weekend news. 18 April.

http://www.canalsur.es/radio/programas/programacion-especial---ssii/detalle/516137.html

NEWTRAL.ES. 18 April.

https://www.newtral.es/aumentan-las-intoxicaciones-en-el-hogar-por-intentar-evitar-el-coronavirus/20200418/

RADIO NACIONAL DE ESPAÑA. El Rayo que no Cesa. 20 April.

https://www.rtve.es/alacarta/audios/el-gallo-que-no-cesa/

TELEVISIÓN DE GALICIA. Quem Anda Aí. 20 April.

http://www.crtvg.es/tvg/a-carta/programa-60-4379957?t=5014

LA SEXTA.COM. Society. 20 April.

https://www.lasexta.com/noticias/sociedad/efectos-psicologicos-pandemia-obsesion-lejia_202004205e9e9ee1cea68900015fa353.html

ANTENA 3 TV. Coronavirus Special. 22 April.

https://www.atresplayer.com/antena3/noticias/especial-coronavirus-a3/abril/22-04-20

CANAL EXTREMADURA RADIO CHANNEL. El sol sale por el oeste. 28 April.

http://www.canalextremadura.es/el-sol-sale-por-el-oeste/el-sol-sale-por-el-oeste-4h-280420

DIARIO DE SEVILLA. Coronavirus. 4 May.

https://www.diariodesevilla.es/andalucia/coronavirus-andalucia-limpiar-productos-limpieza-lejia_0_1460554429.html

DIARIO LEVANTE. 31 May.

«People called after having drunk bleach».

CUATRO TV. Cuatro al día. 19 June.

https://www.mitele.es/programas-tv/cuatro-al-dia/2020/diario/diario-19062020-40_1008470575013/player/

RADIO NACIONAL DE ESPAÑA. Gente Despierta. 22 June.

«Hydroalcoholic gel and soft drink production in penal institutions».

COMMUNICATION OFFICE OF THE MINISTRY. 7 September.

https://www.mjusticia.gob.es/cs/Satellite/Portal/es/ministerio/gabinete-comunicacion/noticias-ministerio/instituto-nacional6

TVE. Justiciagob. 8 September.

https://publish.twitter.com/?query=https%3A%2F%2Ftwitter.com%2Fjusticiagob%2Fstatus%2F1303386308199542785&widget=Tweet

LA SEXTA. News. 8 September.

https://www.lasexta.com/noticias/sociedad/las-pruebas-de-la-estafa-del-mms-ni-un-curado-y-26-intoxicados-tras-ingerirlo-como-terapia-contra-el-coronavirus_202009085f579a183703420001dcdb96.html

CUATRO TV. Todo es Mentira. 8 September.

https://www.cuatro.com/todoesmentira/negacionistas-solucion-mineral-milagrosa-cura-coronavirus-26-intoxicados_18_3007995286.html

CUATRO TV. Cuatro al Día. 8 September.

https://twitter.com/cuatroaldia/status/1303393924015443973

TELEVISA. News. 9 September.

https://www.youtube.com/watch?v=32rFMBoK4sQ

RTVE. Por Tres Razones. 9 September.

https://www.rtve.es/alacarta/audios/por-tres-razones/solucion-toxica-contra-covid-19-se-vende-espana/5662748/

COPE CATALONIA AND ANDORRA. 10 September.

https://www.cope.es/emisoras/cataluna/barcelona-provincia/barcelona/herrera-a-cope-catalunya-i-andorra/noticias/crecen-las-intoxicaciones-por-derivado-lejia-vendido-como-remedio-contra-coronavirus-20200910_888551

TELEMADRID. Telenoticias 2. 14 October.

http://www.telemadrid.es/programas/telenoticias-2/Ojo-intoxicaciones-gelhidroalcoholico-ninos-2-2277392305--20201014094627.html0

CADENA SER. La Ventana. 14 October.

https://cadenaser.com/ser/2020/10/14/sociedad/1602660822_081520.html

EL CONFIDENCIAL. 14 October.

«900% increase in intoxications due to hydroalcoholic gels in children as a result of Covid». EFE.

EL DIARIO.ES. 14 October.

«Hydroalcoholic gel intoxications rise in children due to pandemic».

REUTERS. 14 October.

«The number of enquiries due to intoxications in Spain from hydroalcoholic gels has increased by more than 900%».

RTVE. News. 15 October.

https://www.rtve.es/alacarta/videos/telediario/aumentan-intoxicaciones-geleshidroalcoholicos-ninos-coronavirus/5685239/

ANTENA 3. News. 15 October.

https://www.antena3.com/noticias/sociedad/se-multiplican-por-9-las-intoxicaciones-en-ninos-por-el-uso-del-gel-hidroalcoholico_202010155f885738d9123d0001fbbda2.html

LAS PROVINCIAS. 15 October.

«Hydroalcoholic gel intoxications in children are skyrocketing».

PERIÓDICO DE IBIZA Y FORMENTERA. 15 October.

«Hydroalcoholic gel intoxications are increasing in children».

EL ESPAÑOL. 19 October

«Two children from Santiago, after losing their sight from throwing hydroalcoholic gel at each other».

GALICIA. EUROPA PRESS. 19 October

«Intoxications with hydroalcoholic gel in Galicia: almost 40 enquiries to the SIT in eight months».