



TEACHING VOCATIONAL CLEANING SKILLS TO ADULTS WITH INTELLECTUAL DISABILITIES



EQUALvet Development of a vocational training program for people with intellectual disabilities in three professions: cook assistant, gardener assistant and cleaner

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EQUALvet

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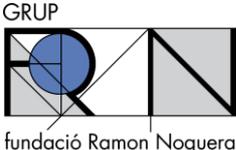
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CONSORTIUM

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INTRODUCTION

The aim of the program is to enable people with intellectual disabilities or mental health problems to develop their potential and capabilities to development insertion itineraries. Also to improve work, social and occupational insertion, maintenance of the workplace and job promotion, promoting equality and participation in integrated actions that include orientation, counselling, monitoring and non-work practices in companies with particular emphasis on the younger people.

These procedures are studied and achieved with the support work methodology, which conduces to the social and labour adaptation of workers with intellectual disabilities. The aim is finding a job in ordinary company.

The trainers of the program are a key part of this aim; however, the training task requires specific professional competences, based on curricular, pedagogical, didactic and methodological knowledge and skills, as well as personal, professional principles, attitudes and values.

The work of the trainer is a complex task, but at the same time, it is the great challenge of helping the program participants to develop their personal, social, intellectual and emotional potential. This way, it facilitates the development of life skills.

PART 1 Theoretical Background & Educational Methodology

Training Practice in Group Sessions

Participants

The participants of this program are people with intellectual disability and / or mental health problems who have recognized a degree of disability equal to or greater than 33% who have any of these three characteristics:

- Jobseekers
- People who are looking for an improvement in employment
- Active workers in companies in the ordinary market that are in the phase of follow-up to insertion and get support work.

All the materials and the contents must be adapted according to the group before us, taking into account that:

Intellectual Disability Participants: The AAMR (American Association for Mental Retardation) defines the concept of mental retardation as: significantly lower than average functioning, which generally coexists with two or more of the following areas of adaptive skills: communication, self-care, home life, social skills, community use, self-direction, health and safety, academic skills, leisure and work. It manifests before the age of 18.

The concept of support is central to this definition of intellectual disability. It indicates that with the right supports everyone is functioning will improve, it also carries with it the basic and central idea that intellectual disability is not a static condition.

Below average intellectual functioning may persist, but this is not by itself, the determining factor in the existence of significant limitations on a person's vital functioning. The new concept of intellectual disability refers to a disability characterized by significant limitations in both intellectual functioning and adaptive behaviour, expressed in conceptual, adaptive, social and practical skills.

Adaptive skills include those skills needed to take care of oneself and develop well in daily life. It is possible to emphasize among them:

- Communication
- Personal care
- Home life
- Social abilities

- Use of the Community
- Self-direction
- Health and Safety
- Academic and functional skills
- Leisure
- Work

People with intellectual disabilities, like the rest, are potentially generators of progress and wealth for the context in which they live. The definition we are analysing is clearly stated: in each person, the limitations and the strengths that he has in his abilities should be evaluated.

Different stages of preparation, job placement, initial accompaniment, regular accompaniment and throughout your work itinerary.

Before you begin the session

Detailed preparation of activities and materials is essential for the session to go well. It is imperative to get to the center and classroom long enough. There will be time for last-minute management, review of the programming, preparation of materials and organization of the spaces, before receiving the participants.

Dynamics must obey a goal and reflect the role that the trainer and participants will play in the teaching and learning process. The methodology that must be used is the one that has to mark the distribution the spaces and the time.

At the beginning of the group session

It is very important to get a calm and orderly start, as this will help to make it all work better. It is usually advisable to start the session with systematized procedures or strategies known to the participants. They make it easier for them to sign in, promote readiness for work, and provide participants with security.

It is advisable to be neat and systematic. At the beginning of the session, time should be spent reviewing what was done in the previous session, and reporting on what will be done in this session. Explain what it is that you intend to do, why and how you want to do it.

During the session

The unit to work must include strategies that facilitate understanding and motivation, marking the most important points and distinguishing them from the secondary ones. It is advisable to establish interconnections with the contents of other units.

It must succeed in transmitting interest, and giving participants stimuli to learn, offering close examples to their reality and appropriate to the content and objectives.

It is very convenient to show understanding, interest and concern for the emotional, social and physical circumstances of all participants.

We need to give clear instructions that all participants are able to perform the task properly and to guide them in the work. Both group and individual comprehension should be constantly tested, using different techniques to diagnose and measure the needs, difficulties and progress of all participants, and thus be able to provide the individual feedback needed to adapt the different processes of learning.

Recognizing the differences between participants is indispensable in training practice, as not all participants learn in the same way. The methodology must therefore take into account the different learning characteristics and rhythms of each participant. It is necessary to use a variety of training models and strategies, using a variety of resources and instructional materials to respond to diversity.

Spaces should be provided for reflection and learning about the practice. It is important to propose varied teaching experiences to promote active learning and the use of different types of intellectual strategies that address the diversity of forms and rhythms of learning.

It is imperative to include the use of communication and communication technologies (ICT) in the educational environment so that participants can develop, on the one hand, digital competence understood as their own area of knowledge (learning about ICT); on the other hand, and finally, digital competence as an instrument for learning and building knowledge.

It is very important to maintain an open and positive attitude towards the student relationship. The treatment must base with participants on mutual respect and trust, within the framework of the established standards of coexistence. It is necessary to form values and set an example of respect both inside and outside the classroom.

In addition, strategies need to be developed to encourage positive coexistence and an appropriate learning climate both inside and outside the group. Coexistence issues should be adequately addressed and it is important to get involved in programs or activities to support them.

It is very likely that at some point in the program various conflicts will arise in the class. Conflict is inherent in coexistence, a common and inevitable element in all human groups. That is why it is impossible to avoid conflicts; on the contrary, they must devise systems of resolution that make them more of a learning tool and that serve to regulate daily coexistence. Conflict situations should therefore be seized as an opportunity for learning that is geared toward reconditioning these behaviours.

Finally, it should be borne in mind that while training procedures are important, they are not an end in themselves. The success of the teaching-learning process is based on the lessons learned, that is, on the development of the competencies that the participants have achieved.

End of group session

At the end of the session, it is important to make a final synthesis, perhaps through a conceptual map, outline or any knowledge organizer, which involves participation. In addition, it would be wise to review what they learned during the session and provide them with tools to reflect on how they did it. Finally, participants could be commended for the good work done, which will encourage them in later learning as well as provide the necessary guidelines for the next session.

Methodology and Resources

Every teaching-learning process takes place in a specific context and involves a methodology. These methodological strategies must be adapted to the characteristics of the students, their level of competence, social and cultural variables, etc.

The inclusion of competences means that, although a wide variety of methodologies depending on the different teaching and learning times are appropriate, it is the active methodologies that promote greater student participation and involvement, which lead to meaningful learning.

The methodology developed should encourage the participation of all the people in the group, motivation, self-confidence and initiative to propose ideas.

We have to take into account the following methodology:

- Flexible, adapting to the needs and interests of the context in which it is developed.
- Open, that allows interaction.
- Dynamics, which enables the balanced participation of all.
- Work in groups, for the sharing of the topics discussed, reflections, exchange of opinions and individual work for the accomplishment of the tasks.
- Theoretical - practical, since theory is important, but also the application to the daily life of new knowledge is most important. The sessions have to be a practical and direct application to everyday life, thus encouraging the motivation and interest in attending and participating in the course.

Activities that support this methodology:

- Role-playing
- Group dynamics
- Brainstorming
- Support work and individual guidance
- Practice in the activity itself.
- Audio-visual supports
- Performing role-playing games and simulations that allow you to go out of your personal point of view and take on other perspectives.

- Organization of discussions and activities of shared work, from which the capacity of communication, persuasion, shyness, reasoning... of each person is observed, afterwards to be able to carry out conversations and personalized reflections with them.
- Direct / indirect observation.

Methodological Guidelines

The choice of methodological technique is related by the goals that are to be achieved. It is important to choose those that most effectively develop competences, both disciplinary and cross-disciplinary, that adapt to the diversity of participants, motivate learning, pose real and meaningful situations, promote active participation, and encourage integrated use. Methodological tools and various sources of information, foster evaluation and promote autonomy and inclusion.

- Interactive classes

The weight of the interactive classes falls on the students and the trainer becomes a guide; we prioritize the communication and group learning. Teamwork is essential for creating a learning environment that allows participants to discuss concepts, collaborate, confront their hypotheses, and share information.

It is important to create work dynamics based on heterogeneous groups where motivation and constructive dialogue are strengthened.

- Individual learning

The students who need timely treatment and individualized attention.

Teaching Resources

The material has been elaborated with the intention of facilitating the teacher to his task. Teaching resources are a guide to learning, as they help us organize the information we want to convey; to exercise and develop the skills.

A great variety of teaching resources should be used to facilitate the work of the contents from different perspectives, favouring the use of varied intellectual strategies and different competencies, and that they adapt to the different ways of learning.

Evaluation

Assessment of the participant is an essential part of their learning process. The main purpose of the evaluation is to gather information on the accomplishments and difficulties of each participant (and the group) in their learning process, in order to evaluate the degree of achievement of the objectives and to help them in their progress and, when necessary, refocus the learning process.

It should be clarified from the outset that evaluating under no circumstances is synonymous with qualifying, but that evaluation has many other purposes, always associated with getting the participant to the fullest possible development of their abilities and attaining the necessary competences.

CURRICULUM OF THE CLEANING SKILLS VET WORKSHOPS

PART 2 - UNIT 1 CURRICULUM

Lesson and Unit	<p>PART 2: Terminology and Basic Cleaning Techniques</p> <p>UNIT 1: Terminology and Basic Cleaning Techniques</p>
Subject	<ol style="list-style-type: none"> 1. Concepts: <ul style="list-style-type: none"> – Cleaning up – Dirt – Disinfection – Types of waste and debris in the cleaning process 2. Appropriate cleaning processes for each material: <ul style="list-style-type: none"> – Hard materials – Soft materials 3. Disadvantages of poor selection. 4. Application of cleaning and disinfection products 5. Packaging of the products 6. Storage of cleaning products <p>Types of products:</p> <ul style="list-style-type: none"> – Cleansers: solvents, soaps, detergents, shampoos, cappols, disinfectants, degreasers, ammonia, specific disinfectants and in general, WC disinfectants, bleach. – Polishes: Strippers, crystallizers, sealants. – Specific products: glass cleaners, metal cleaners. <p>Application of products according to criteria:</p> <ul style="list-style-type: none"> – Dosage. Handling of the different dispensers. – Forms of action in case of possible toxicity cases. – Health risks. – Interpretation of the labelling: Different indications present on the packaging of cleaning and disinfection products.
Educational Goals	<ul style="list-style-type: none"> – Identify the items that are involved in the cleaning tasks. – Learn the procedures and techniques for cleaning floors, walls and ceilings. – Take responsibility for the work being carried out.

	<ul style="list-style-type: none"> – Learn new concepts or procedures and effectively leverage training using the knowledge gained.
Tools	<ul style="list-style-type: none"> – Observation of a simulated work situation – Proof of professional competence based on the professional assessment situations – Skill tests – Oral questions – Synthesis tests – Objective tests
Equipment	<p><u>Audio-visual equipment:</u></p> <ul style="list-style-type: none"> – Digital board – Classroom material – PCs installed on the network, projection tube and the Internet – Training table and chair – Tables and chairs for students <p><u>Workshop classroom for cleaning surfaces and furniture in buildings and premises:</u></p> <ul style="list-style-type: none"> – Surfaces for cleaning – Sample of cleaning products – Cleaning utensils – Transport cart for products and utensils – Minimum personal protective equipment: gloves, masks and lumbar girdle for machine work
Duration	8 hours

PART 2 – UNIT 2 CURRICULUM

Lesson and Unit	<p>Part 2: Terminology and basic cleaning techniques</p> <p>Unit 2: Health risks and safety measures</p>
Subject	<ol style="list-style-type: none"> 1. Risk inherent in cleaning activities 2. Health risk from handling of cleaning products 3. Interpretation of the labelling. 4. Identification and use personal protective
Educational Goals	<ol style="list-style-type: none"> 1. Learn the risks derived from cleaning tasks 2. Learn to identify the warning labels 3. Identify the different personal protective equipment
Educational Tools	<ul style="list-style-type: none"> – Proof of professional competence base on the professional assessment situations – Skill tests – Oral questions – Synthesis tests – Objective tests
Equipment	<p><u>Audio visual equipment</u></p> <ul style="list-style-type: none"> – Digital board – Classroom material – PCs installed on the network, projection tube and the internet – Training table and chair – Tables and chairs for students <p><u>Workshop classroom for cleaning surfaces and furniture in buildings and premises:</u></p> <ul style="list-style-type: none"> – Clean surfaces – Sample of cleaning products – Cleaning utensils – Transport truck for products and utensils – Minimum personal protective equipment: gloves, masks
Duration	8 hours

PART 2 - UNIT 3 CURRICULUM

Lesson and Unit	<p>PART 2: Terminology and basic cleaning techniques</p> <p>UNIT 3: Perform the cleaning of floors, walls and ceilings in buildings and premises</p>
Subject	<ol style="list-style-type: none"> 1. Sequencing cleaning activities adapted to each technique: sweep, wet sweep, aspiration, mop, dusted. 2. Conditioning of the workspaces: <ul style="list-style-type: none"> – Preparation of the environment and maintenance of order. – Development of cleaning tasks with people at or at work (in transit). 3. Techniques for verification of cleaning tasks 4. Monitoring of the Work Plan <ul style="list-style-type: none"> – Interpretation and execution of instructions received – Knowledge of the procedures and rules of the work center 5. Handling and maintenance of cleaning utensils. <ul style="list-style-type: none"> – Identification: for floors, walls, ceilings. – Application of the different cleaning tools. – Conservation processes of these. – Utility appliances - Easy to use vacuum cleaners
Educational Goals	<ol style="list-style-type: none"> 1. Identify the elements involved in the cleaning tasks 2. Learn the procedures and techniques for cleaning floors, walls and ceilings 3. Know how to manage and treat waste in the cleaning of floors, walls and ceilings 4. Take responsibility for the work being carried out 5. Learn new concepts or procedures and effectively leverage training using the knowledge gained 6. Learn how to interpret and execute job instructions.
Educational Tools	<ul style="list-style-type: none"> – Proof of professional competence base on the professional assessment situations – Skill tests – Oral questions – Synthesis tests – Objective tests
Equipment	<p><u>Audio visual equipment</u></p> <ul style="list-style-type: none"> – Digital board – Classroom material – PCs installed on the network, projection tube and the internet – Training table and chair – Tables and chairs for students

	<u>Workshop classroom for cleaning surfaces and furniture in buildings and premises:</u> <ul style="list-style-type: none">– Clean surfaces– Sample of cleaning products– Cleaning utensils– Transport truck for products and utensils– Minimum personal protective equipment: gloves, masks
Duration	8 hours

PART 2 – UNIT 4 CURRICULUM

Lesson and Unit	<p>PART 2: Terminology and Basic Cleaning Techniques</p> <p>UNIT 4: Waste Management and Treatment</p>
Subject	<ol style="list-style-type: none"> 1. Types of waste: urban, industrial, hospital, agricultural, livestock, forestry and mining 2. Waste treatment: recycling, reuse, valuation and disposal 3. Processes of separation, handling and storage of waste
Educational Goals	<ol style="list-style-type: none"> 1. Know how to manage and treat waste in the cleaning of floors, walls and ceilings 2. Take responsibility for the work being carried out 3. Learn new concepts or procedures and effectively leverage training using the knowledge gained
Educational Tools	<ul style="list-style-type: none"> – Oral questions – Synthesis tests – Objective tests – Observation of a simulated work situation – Proof of professional competence based on the professional assessment situations.
Equipment	<p><u>Audio visual equipment:</u></p> <ul style="list-style-type: none"> – Digital board – Classroom material – PCs installed on the network, projection tube and the Internet – Training table and chair – Tables and chairs for students <p><u>Workshop classroom for cleaning surfaces and furniture in buildings and premises:</u></p> <ul style="list-style-type: none"> – Sample of cleaning products – Cleaning utensils – Transport truck for products and utensils – Minimum personal protective equipment: gloves, masks and lumbar girdle for machine work – Recycling containers
Duration	7 hours

PART 3 - UNIT 1 CURRICULUM

Lesson and Unit	<p>PART 3: Specific Cleaning Procedures</p> <p>UNIT 1: Furniture</p>
Subject	<ol style="list-style-type: none"> 1. Types of furniture and their composition. 2. Identification of the different cleaning products <ul style="list-style-type: none"> – Cleaners – Polishes – Specific products: glass cleaners, glazers, furniture cleaners, air fresheners 3. Use of cleaning products and disinfection of furniture. <ul style="list-style-type: none"> – Dosage and types of dispensers – Risks from misuse – Conduct to be followed in cases of toxicity
Educational Goals	<ol style="list-style-type: none"> 1. Learn what equipment is needed for cleaning glass 2. Learn the different glass cleaning techniques 3. Know how to classify, dosage and understand the manufacturer's instructions 4. Learn the different types, compositions and characteristics of glass 5. Know how to identify the type of dirt
Educational Tools	<ul style="list-style-type: none"> – Observation of a simulated work situation – Proof of professional competence based on the professional assessment situations – Skill tests – Oral questions – Synthesis tests – Objective tests
Equipment	<p><u>Audio visual equipment:</u></p> <ul style="list-style-type: none"> – Digital board – Classroom material. – PCs installed on the network, projection tube and the Internet – Training table and chair – Tables and chairs for students <p><u>Workshop classroom for cleaning surfaces and furniture in buildings and premises:</u></p> <ul style="list-style-type: none"> – Stained glassware, glass holder, stained glass brush, suede, sprayer, grille, articulated elbow, squeeze clamp, sponge, cartridge – Telescopic tubes of 2 and 4 meters – Cabinet with shelves
Duration	10 hours

PART 3 – UNIT 2 CURRICULUM

Lesson and Unit	<p>PART 3: Specific Cleaning Procedures</p> <p>UNIT 2: Toilet Cleaning and Disinfecting Techniques</p>
Subject	<ol style="list-style-type: none"> 1. Sanitary appliances and accessories for a sink 2. Disinfection techniques for toilets, baths, showers and bidets 3. Cleaning of tiles, mirrors and other materials 4. Consumable material: identification and replacement. Specific products for cleaning a toilet 5. Techniques for verifying the work performed
Educational Goals	<ol style="list-style-type: none"> 1. Know the different techniques for disinfecting toilets, baths, showers and bidets 2. Learn how to clean tiles, mirrors and other materials efficiently
Educational Tools	<ul style="list-style-type: none"> – Observation of a simulated work situation – Proof of professional competence based on the professional assessment situations – Skill tests – Oral questions – Synthesis tests – Objective tests
Equipment	<p><u>Audio visual equipment:</u></p> <ul style="list-style-type: none"> – Digital board – Classroom material – PCs installed on the network, projection tube and the Internet – Training table and chair <p><u>Workshop classroom for cleaning surfaces and furniture in buildings and premises:</u></p> <ul style="list-style-type: none"> – Cleaning wagons, which incorporate a dual rubbing bucket system – Clean surfaces – Sample of cleaning products – Cleaning utensils – Minimum personal protective equipment: gloves, masks and lumbar girdle for machine work
Duration	6 hours

PART 3 - UNIT 3 CURRICULUM

Lesson and Unit	<p>PART 3: Specific Cleaning Procedures</p> <p>UNIT 3: Cleaning of Pavements - Floors</p>
Subject	<ol style="list-style-type: none"> 1. Classification of the pavements 2. Criteria for the use and dosage of machine cleaning products
Educational Goals	<ol style="list-style-type: none"> 1. Meet the hard and soft floors
Educational Tools	<ul style="list-style-type: none"> – Observation of a simulated work situation – Proof of professional competence based on the professional assessment situations – Skill tests – Oral questions – Synthesis tests – Objective tests
Equipment	<p>Audio visual equipment:</p> <ul style="list-style-type: none"> – Digital board – Classroom material – PCs installed on the network, projection tube and the Internet – Training table and chair
Duration	6 hours

PART 3 - UNIT 4 CURRICULUM

Lesson and Unit	PART 3: Specific Cleaning Procedures UNIT 4: Glass Cleaning in Buildings and Premises
Subject	<ol style="list-style-type: none"> 1. Utensils, machines and tools of the glazier. 2. Types of widgets 3. Conservation and storage of these 4. Use of tools and work tools: criteria to follow 5. Use of specific cleaning products <ul style="list-style-type: none"> – Classification – Application of the basic rules of use – Dosage and use of dispensers
Educational Goals	<ul style="list-style-type: none"> – Identify the different utensils, machines and tools that the glazier will need – Determine the type of conservation and storage of these utensils – Learn the necessary criteria for the use of work tools – Recognize and apply the basic rules of use of utensils and machinery
Educational Tools	<ul style="list-style-type: none"> – Observation of a simulated work situation – Proof of professional competence based on the professional assessment situations – Skill tests – Oral questions – Synthesis tests – Objective tests
Equipment	<u>Audio visual equipment:</u> <ul style="list-style-type: none"> – Digital board – Classroom material – PCs installed on the network, projection tube and the Internet – Training table and chair – Tables and chairs for students <u>Workshop classroom for cleaning surfaces and furniture in buildings and premises:</u> <ul style="list-style-type: none"> – Stained glassware, glass holder, stained glass brush, suede, sprayer, grille, articulated elbow, squeeze clamp, sponge, cartridge – Telescopic tubes of 2 and 4 meters – Cabinet with shelves
Duration	10 hours

PART 3 - UNIT 5 CURRICULUM

Lesson and unit	<p>PART 3: Specific Cleaning Procedures</p> <p>UNIT 5: Cleaning Techniques and Procedures with Use Machinery</p>
Subject	<ol style="list-style-type: none"> 1. Typology of machinery and components of machinery <ul style="list-style-type: none"> – Electrical components – Mechanical components – Other components 2. Techniques of maintenance of machinery <ul style="list-style-type: none"> – Preventive and corrective maintenance – Storage of the different machinery 3. Interpretation of technical data sheets and machinery signalling
Educational Goals	<ul style="list-style-type: none"> – Identify the different types of machinery – Learn the different components of machinery, both electrical and mechanical – Perform the interpretation and evaluation of the maintenance of the machinery – Interpret the different listings and signs of the machinery
Tools	<ul style="list-style-type: none"> – Observation of a simulated work situation – Proof of professional competence based on the professional assessment situations. – Skill tests – Oral questions – Synthesis tests – Objective tests
Equipment	<p><u>Audio-visual equipment:</u></p> <ul style="list-style-type: none"> – Digital board – Classroom material – PCs installed on the network, projection tube and the Internet – Training table and chair – Tables and chairs for students <p><u>Workshop classroom for cleaning glass in buildings and premises:</u></p> <ul style="list-style-type: none"> – Tools for working with machines – Rotary machine for common applications: mopping, draping, carpet washing, polishing, crystallization, micro finishing or diamond with fibber disk plus accessories
Duration	6 hours

PART 2 Terminology and Basic Cleaning Techniques



UNIT 1 Terminology & Basic Cleaning Techniques

Lesson 1 Concepts-Definitions



1.1 CONCEPT AND DEFINITIONS

First, we need to identify different concepts:

- **CLEANING:** The action of making something clean, especially the inside of a house or other building.



- **DIRT:** Dirt is dust, stains, grease or anything else that gets dirty. A disorder is also dirt, any matter that is in an inappropriate place, for example a container with liquid; it can become dirt (if this liquid falls).
- The cleaning surfaces are intended to combat infections that can be caused by the germs found in the dust.
- Appropriate methods should be used based on the characteristics of the dirt we want to remove, and a product suitable for each case.

We can distinguish several types of dirt:

- **Non-greasy dirt:** one that adheres to objects or surfaces, due to environmental conditions or as a result of activities that take place in a particular place. They are solid and easily to remove, such as clay, paper, butts, sand, food scraps.
- **Greasy dirt:** caused for oils, greasy more difficult to remove, because we need special products.
- **Special dirt:** those that require special products and techniques to eliminate them, such as rust stains, the rubbing of the soles or wheels on the pavements, the rest of the materials under construction or repair. They require the use of chemicals specific to each particular case.

We determined that soluble and non-soluble dirt exist.

Soluble dirt comes in two forms:

A. Pigmentary

It is one that is found in small, poorly soluble solid particles and which attach by force or physical adhesion such as dust, mud, etc. This type of dirt is removed by mechanical force application, sometimes requiring wet products.



B. Protein

It comes from biological fluids or animal secretions. This dirt coagulates with the temperature and becomes insoluble, such as blood, sweat, egg, milk. For its elimination we will need alkaline detergents and enzymatic processes.

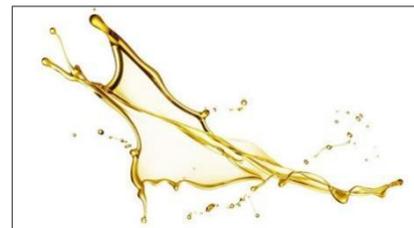


Non-soluble dirt comes in three forms:

A. Fats

We can find them liquid (oils) or solid (fats). They are made up of fatty acids and glycerine. We differentiate:

- **Natural Fat Dirt:** They can be of both plant and animal origin. They are dirt that can turn soap into a greasy body, especially because of the combination of acids it contains with alkali (saponifiable), they are eliminated by chemical action of alkaline product and temperature.
- **Mineral Greasy Grease:** Oils obtained by refining petroleum such as engine oils, lubricants, antifreeze. Similar solvents of a similar chemical nature or emulsifiers with detergents must be used to eliminate them.



B. Iron Oxide Dyes

There are two categories:

- **Mineral Colorant Dirt:** Made up of a set of molecules which are more intensely fixed in the tissues or are absorbed by the porosity of the pavements, being more intense if they are next to other types of dirt. A chemical product that be needed.
- **Natural Colouring Dirt:** Composed of macromolecules of different compounds that are weakly fixed on porous textiles and pavements, such as wine, chocolate or tea. They are eliminated by a chemical product.

C. Inorganic Salts

Usually composed of calcium and magnesium residues, they are fixed to the textiles after the water has evaporated in the washing process. A new washing process with acid detergent is required for removal.

Before cleaning, we must always keep in mind three key aspects:

1. Determine the nature of the item that we will clean
2. Recognize the class of dirt.
3. Apply the most appropriate cleaning procedure.

1.2 DISINFECTION

The process of cleaning something especially with a chemical in order to destroy bacteria. The cleaning surfaces are intended to combat infections that can be caused by the germs found in the dust.

Appropriate methods should be used based on the characteristics of the dirt we want to remove, and a product suitable for each case.

1.3 TYPES OF RESIDUE AND RUBBISH IN THE CLEANING PROCESS



Depending on where the building is destined for cleaning, we will find one type of residue or another.

The most common types:

1. **Urban Solid Residue:** This residue is made in urban environments and usually it comes from the domiciles, trades, offices, etc.



Remains of organic matter from the preparation of meals.



Paper and cardboard such as magazines, advertising, boxes, etc.



Plastics such as food and beverage containers, packaging, bags, etc.



Glass like bottles, receptacle, etc.

2. **Industrial Residue:** They are generated by industrial activities. Generally, they are considered as potentially dangerous, being very controlled.



Lesson 2 Different Materials of Surfaces

The cleaning of each surface will depend on the characteristics of each of them.

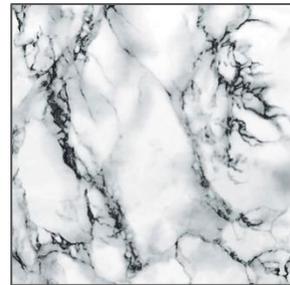
Below we will look at proposals for cleaning different surfaces depending on their hardness:

2.1 HARD MATERIALS

When we talk about hard materials, we mean those that have great hardness and resistance. They are usually slightly porous, which facilitates cleaning.

Marble: Marble is used to a material for both pavement and wall. When it comes to cleaning, there are a number of problems we encounter the following: They tend to absorb greasy stains and coloured liquids and are vulnerable to alkaline and acidic products.

To clean the marble surface, you must remove the dust that gets on the floors, rub it later.



Granite: Granite is a natural material with longer durability. It is used to material for kitchen counter. Is a porous material.

To clean the granite surface, you must remove the dust that gets on the floors, rub it later.



Slate: Slate is a natural material composed of clay or volcanic ash, the main characteristics of which are strength and durability. Is a very porous.

For the maintenance of the surfaces made with this material, it is necessary to eliminate the accumulation of dust.

To clean the slate surface, you must move the dust that gets on the floors, rub it later.



2.2 SOFT MATERIALS

Soft materials are generally characterized by a high degree of porosity, which makes cleaning more difficult:

<p>Wood: Wood and its derivatives are used in the manufacture, not only of pavements, but also for doors, windows, furniture, etc.</p> <p>Hardwood floors are parquet and floating flooring. As a recommendation for cleaning, the method that uses less water is proposed, it can be carried out by a sweep or a revision with mop, impregnated with a special product for this type of ground. The mopping will be carried out in a timely manner, but always taking into account that the mop should only be slightly damp.</p>	
<p>Linoleum: Linoleum is a type of ground made from materials of plant origin such as flaxseed oil, cork and resin. Some of its features are: ease of cleaning, high level of resistance. As a cleaning agent, we recommend a neutral pH product added to the warm water.</p>	
<p>PVC: PVC flooring is made by vinyl polyurethane (PVC). For cleaning, we recommend to use a neutral pH product mixed in the rub bucket with warm water. Before mopping, we recommend dust and debris be removed through the sweep.</p>	

Lesson 3 Cleaning and Disinfection Products

There are currently a large number of products used for cleaning and disinfecting.

Types of products:

3.1 CLEANERS

solvents, soaps, detergents, shampoos, catch dust, disinfectants, degreasers, ammonia, specific disinfectants and in general, WC disinfectants bleach.

<p>Solvents: Chemical compounds are used to remove adherent products such as paint. This type of products is very dangerous.</p>	
<p>The use of soaps of plant origin is currently gaining importance due to the development of environmentally friendly cleaning.</p>	
<p>Detergents are cleaning products whose purpose is to remove the dirt from the fabric on which they are, and then to dissolve.</p>	
<p>Shampoos are cleaning products whose main feature is that they generate foam. They are made from emulsifiers and degreasers and are suitable for removing dirt such as grease, food residues, oils and sludge.</p>	

Dust is a cleaning product designed to capture dust from the surface. They are often used impregnated with mops and are very useful on materials such as granite, marble, parquet, etc.



De-icers are also used in cleaning tasks. They are usually made up of very strong acid. Disinfectants are used to remove materials adhering to one another. This type of products is very dangerous.



Degreasers are used to dilute, remove or degrade oils and fats. This type of products is very dangerous.



Ammonia is a product that is widely used in cleaning and disinfecting. It has a great ability to remove difficult greasy stains. It is used for cleaning bathrooms and kitchens on surfaces such as tiles, as it adds shine. This type of products is very dangerous.



Disinfectants aim to remove dirt and microorganisms by leaving surfaces free of bacteria or viruses. Examples are chlorine or alcohol. This type of products is very dangerous.



<p>The use of WC Disinfectants is highly recommended. For cleaning professionals, disinfecting toilets should be one of the main goals. This type of products is very dangerous.</p>	
<p>The use of Bleach is indicated for surfaces that are intended for deep hygiene and for whitening. It is used in toilets due to its high disinfectant capacity. This type of products is very dangerous.</p>	

3.2 POLISHES: STRIPPERS, CRYSTALLIZERS, SEALANTS

Products that are usually used to give wood or metal shine:

<p>Strippers have the capability of removing old layers and leaving the surfaces ready for further treatment.</p>	
<p>Crystallizers give the surfaces a degree of gloss. The final result is very similar to that of a glass.</p>	
<p>Sealants create coating that seals the pores of the pavements for a glossy, easy-to-clean finish. This prevents the stains from being impregnated in the different surface.</p>	

3.3 SPECIFIC PRODUCTS: GLASS CLEANERS, METAL CLEANERS

Glass Cleaners are suitable for cleaning glass surfaces. The liquid is applied directly to the glass and then rubbed with a cloth.



Metal Cleaners are used on all kinds of metal surfaces, doors, handles, handrails, etc. The purpose is to prevent the corrosion to which this type of material is exposed.



SUMMARY:

The table summarizes the composition of the different products and for which surfaces they are indicated:

SOLVENTS	Natural or artificial origin	Removing paint stains
SOAPS	Alkaline and fatty acid	Cleaning in general
DETERGENT	Surfactants	Cleaning of clothing and textile surfaces
SHAMPOO	Emulsifiers and degreasers	Textile surfaces, dishes, etc.
CATCH DUST	Solvent, alcohol	Dry surface cleaning
DESCALING AGENT	Hydrochloric acid, muriatic acid	Elimination of materials adhered to others
DEGREASERS	They have a formulation alkaline	Spaces that are highly exposed to grease, for example, kitchen tiles
AMMONIA	Ammonium gas, Alcohol, Chlorine active, Bactericidal	Great ability to remove difficult stains. Works well on fabrics
DISINFECTANT	Defrosting products	Use on surfaces that want to be disinfected
DISINFECTANT WC	Sodium hypochlorite	Interiors of WC. Lands and surfaces that want to be disinfected.
BLEACH	Whitening agents	Surfaces, objects or textiles that want to be disinfected and / or bleached.
CLEANING GLASS	Alcohol	Glass or glass surfaces
CLEANING METAL	Solvents, abrasives and surfactants	Metal surfaces that must be protected from rust.
ALKALINE STRIPPER	Dechlorinated, acids	Surfaces that want to be treated again
CRYSTALLIZERS	Phosphoric acid	Surfaces that you want to give a glazed appearance
SEALERS	Silicone, polyurethane or acrylic acid	Porous surfaces that want to be protected from stains

3.4 DISADVANTAGES OF POOR SELECTION OF CLEANING PRODUCTS

When we use a product that is not suitable for the surface, we are cleaning, the consequences can be very varied.

These alterations can occur when using wrong products just at the time of the cleaning or reveal a gradual deterioration as you continue to use the wrong products over time. The main alterations we refer are:

- Breakage of material: When we use abrasive products that are not design for this. It can break or leave it rough and without gloss.
- Modifications to the colour of the surface: this can happen when use chemicals spilled on plastic surfaces.

Lesson 4 Types of Cleaning Products and Criteria for their Proper Dosage

4.1 TYPES OF CLEANING PRODUCTS

Water



Water is a solvent for dirt, but if pipes and appliances have problems with lime build-up, water alone is often not enough, but other products are needed.

When dosing, we must consider what kind of water we have: soft, slightly hard, very hard.

Water hardness is the concentration of mineral compounds in a certain amount of water, in terms of the magnesium and calcium salts it carries.

PH

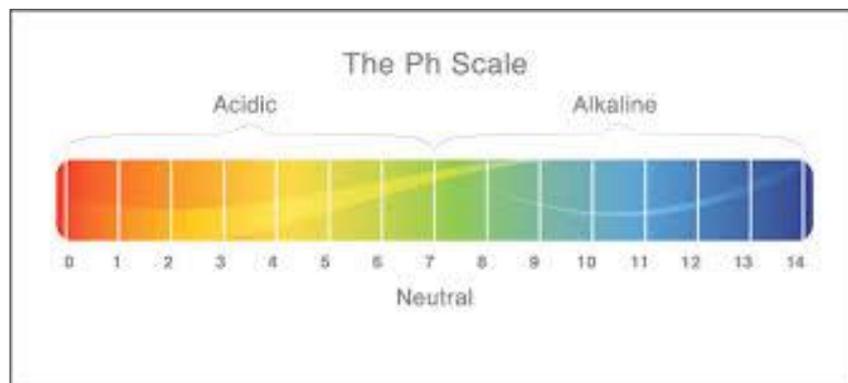


In certain chemical processes it indicates the degree of acidity of a substance.

Those products whose pH is more alkaline will be those used for fat removal, wax, etc. On the contrary, products with a more acidic pH will be used to clean dirt containing elements such as cement, rust, etc.

Each product and brand has a pH determined by the chemical composition, but generally, we indicate that it is common according to the type of product or surface to be treated:

- **Neutral products** [pH 6 to 8]. These are products that can be used on surfaces and surfaces that are crystallized and glossy, such as marble, as they do not alter the properties of the gloss. They can be used for personal use as they do not affect the skin. Detergents with a neutral pH are used for cleaning dirt-free surfaces or for easy cleaning.
- **Alkaline products** [pH 9 or higher]. These products have disinfectant and cleansing properties, especially if the dirt contains pigments, proteins or fats. If the pH is very high, it is usually used as a drain.
- **Acidic products** [pH 5 or lower]. They are products with typically de-icing properties, ideal for calcareous debris, oxides, etc. But be careful: they should be used on non-delicate surfaces, such as dishwasher rinses, citrus cleaners.



Soaps:

Soap is the oldest of detergents; the main ones are the use in cleaning. The differences are:

- **Natural soaps.** They are composed for a mixture of animal or vegetable fat with a base of soda or potash. They are handmade and have little impact on the environment, it should be borne in mind that they are not very effective in hard water and can form precipitated scabs.
- **Synthetic soaps:** They are made of petroleum-based substances, have a low cost and are active in all types of water. These types of soaps can be easily adulterated as well as non-biodegradable
- **Semi-synthetic soaps:** They are composed of a natural fat and another part chemically modified. They are active in all kinds of water, 100% biodegradable and more effective than the previous ones.

Detergents:

They are the substations that have the chemical property of dissolving the dirt or the impurities of a sense object to corrode. One part of the detergent attaches strongly to the water, while the other leaks from the water to the dirt. They are usually biodegradable because water is responsible for removing them.

Detergents are made up of:

- **Surfactants:** They are responsible for separating the dirt and preventing it from being deposited again.
- Complementary components such as:
- **Auxiliary agents:** They help the surfactant in its task:
- **Additives:** These add surfactants to perfumes, dyes, preservatives and bleaches such as perborate.
- **Presentation assistants:** They regulate the concentration of the detergent for a suitable viscosity a homogeneous mixture.
- **Auxiliary agents:** For example, fluorescent substances that counteract the natural tendency of clothing to turn yellow.

4.2 DOSAGE

Two important aspects: the quantities of product to be used in the cleaning activity and how the products will be applied.

The amount of product to be used for cleaning is determined by the manufacturer's instructions.

We follow the manufacturer's instructions faithfully.

The most commonly used dispensers:

<p>Hydro-cleaners: Hydro-cleaners are a set of machines that effectively dose both the cleaning products and the water used. They use high pressure for more efficient cleaning of large surfaces.</p>	
<p>Foam power stations: Foam power plants are designed to apply a foam product. They are indicated for the cleaning of surfaces of kitchens in agro-food industries, hospitals, etc.</p>	
<p>Sprayed equipment: Sprayed equipment allows dosing of cleaning products and water on the surfaces to be cleaned for easier disinfection. It is a means of saving water and products.</p>	
<p>Industrial dispensers: Industrial dispensers are connected to the water supply network. The chosen cleaning product is mixed with water in the desired proportion.</p>	
<p>Soap and paper dispensers: Usually incorporate locks that require a key, in order to prevent the removal of this type of material.</p>	
<p>Air freshener: The air freshener is usually electric. In this way, dosing is guaranteed in a controlled and comfortable way and the product is saved, supplying only the required.</p>	

4.3 DISADVANTAGES OF POOR SELECTION OF CLEANING PRODUCTS

When we use a product that is not suitable for the surface, we are cleaning, the consequences can be very varied.

These alterations can occur when using wrong products just at the time of the cleaning or reveal a gradual deterioration as you continue to use the wrong products over time. The main alterations we refer are:

- Breakage of material: When we use abrasive products that are not design for this. It can break or leave it rough and without gloss.
- Modifications to the colour of the surface: this can happen when use chemicals spilled on plastic surfaces.
- Loss of surface gloss: Can be using special products for delicate surfaces, using some kind of wax from time to time.

Lesson 5 Packaging of the Products

The packaging of the products we work with, must meet a number of requirements:

- They must be designed, built and closed for the content cannot escape.
- The packaging and sealing materials must not be damaged by the contents or susceptible to the formation of hazardous compounds.
- The package and the enclosures must be strong and solid, so that they do not loosen.
- Containers with reusable closures must be designed to be closed repeatedly without leaking contents.



The use of chemicals should not cause harm to health if done in proper conditions, for which it is advisable to know the characteristics of the same and their proper use.

- Each container containing a chemical must necessarily have a:
- Clearly visible label, firmly affixed to one or more surfaces of the container containing the substance or mixture, and on which the name of the chemical must clearly appear substance.
- The DANGERS pictograms that clearly stand out from the bottom and the contact details of one or more suppliers must be displayed horizontally, in the position where the packaging is usually left, as well as save product safety data sheets to know the general characteristics of the product.

There are different types of hazards of chemicals:

- Physical-chemical properties
- Explosives
- Carburant

Gas, which generally releases oxygen, can cause or facilitate the combustion of other substances to a greater extent than air.

- Extremely flammable, easily flammable.

Toxicological Properties

- Very toxic
- Toxic
- Harmful Toxic
- Corrosive
- Irritating
- Sensitized

Specific Health Effects

- Carcinogenic
- Mutagenic
- Toxic to Reproduction

Lesson 6 Storage of Cleaning Products

There is a diversity of types of storage, taking into account the type of facilities, the containers to which they are transferred, the danger of the product, etc.

The security conditions that the storage of chemical products must comply with are subject to the changes resulting from the modifications in the specific safety regulations applicable.

The first step in establishing the danger of storage is to identify how expensive the stored chemicals are and to specify the quantity of each of them.

The joint storage of chemicals, in the same containers or in the same dependence, without the adoption of appropriate security measures, can pose a serious risk of accidents due mainly to the possible reactions that may occur between them products and which can cause fires, explosions, toxic gas emissions, etc.

Only chemicals of the same hazard classes should be stored together, provided there is no specific incompatibility between these products.

Persons in contact with chemicals must use appropriate personal protective equipment derived from the occupational risk assessment and in accordance with the established ones.



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- Physical-chemical properties
- Explosives
- Carburant

Gas, which generally releases oxygen, can cause or facilitate the combustion of other substances to a greater extent than air.

A table of chemical storage incompatibilities developed by the Occupational Safety and Health Institute is:

		Oxidizing	Flammable	Corrosive: ACID	Corrosive: BASE	Health hazard / toxic
Oxidizing		Green	Red	Yellow	Yellow	Yellow
Flammable		Red	Green	Red	Red	Yellow
Corrosive: ACID		Yellow	Red	Green	Red	Red
Corrosive: BASE		Yellow	Red	Red	Green	Yellow
Health hazard / toxic		Yellow	Yellow	Red	Yellow	Green

Explosive chemicals and compressed gases can not be stored with any other chemicals

Separate liquids and solids

Chemicals that ONLY have these pictograms can be stored outside of the ventilated storage area



In case of multiple hazard pictograms the following order should be considered

LEGEND

Not Compatible	Storage According to SDS Section 7 and 10	Compatible
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Note that the two chemicals can have the same pictogram and still be incompatible!

Example: Acetic acid and triethylamine are both flammable, but cannot be stored together because they are an acid and a base.

UNIT 2 Health Risks and Safety Measures

Lesson 1 Risks Inherent in Cleaning Activities

The risks to the staff of the cleaning staff are disparate, as the diversity of tasks and activities they carry out occupy different professional profiles. In addition to the characteristics of the sector, with a variety of centres that carry out cleaning tasks such as offices, industrial cleaning, health centres, airports, hotels, etc., together with the training of staff and the characteristics of the space, which means that we must pay special attention to the higher incidence of occupational diseases in this sector, due to exposure to various chemical agents and activities that require physical exertion.

General principles in risk prevention:

1. Avoid risks.
2. Evaluate the inevitable.
3. Fight them at their source.
4. Adapt them to the people.
5. Take into account the technical evolution.
6. Replace the dangerous.
7. Bread prevention.
8. Take measures that put collective security ahead of the individual.
9. Train the workers.

Cleaning workers are exposed to many risks:

Most common injuries

- Wounds
- Blows for handling cars, vacuum cleaners, rotary presses or other objects

Fractures

- Dropping a machine or object on feet or arms.
- Punctures and cuts.
- When handling rubbish bags and sharp objects.
- Musculoskeletal injuries.
- Back and extremity problems, and pains.

Causes:

- Physics. Major efforts and physical overload.
- Psychosocial. Stress.
- Related to the person. Sex, age, lifestyle.
- Related to the organization of the job. High work rhythm lacks training.

Next, we will outline the risks to which we are exposed and the precautionary measures that must be taken to avoid them.

1.1 HANDLING LOAD POSTURES AT WORK

Manual handling involves human effort, both directly (lifting, j positioning, indirect movement (thrust, traction, displacement), which can cause discomfort and injury due to:

- Handling bins and garbage bags.
- Transportation of machinery: vacuum cleaners, rotary machines, mobs.
- Work utensils.
- Movement of furniture and objects.

We must take into account a number of preventive measures:

- Keep your back straight, bend your knees and work your legs.
- Spread your feet slightly apart.
- Hold the load firmly with both hands.
- Hold the load with your arms extended down, as close as possible to the body.
- Avoid turning the body during lifting, transportation and loading, we will use our feet to move.
- When moving the load, it cannot interfere with the visual field.
- Electrical risks

1.2 ELECTRICAL RISK

Accidents due to electric shocks are not very common in the cleaning industry, but their consequences are very serious.

Check the adequacy of electrical equipment and / or installations in the conditions in which they are used:

- Premises conditions: Wet premises, premises with conductive surfaces.
- Activity conditions: possible presence of combustible or explosive atmospheres, aggressive environments (pollution, extreme temperatures, corrosion, etc.
- Environmental conditions: Indoor or outdoor installations, altitude, surges and other disturbances in food, etc.

This type of accident occurs when touching equipment connection cables or extension cords in which the insulation is damaged or the insulation is poor, which may be due to one or more of the following causes:

- Pull the cable to disconnect the equipment.
- Pass machines over cables and extension cords.

Overload sockets or sockets, using them to connect equipment with more power than they can withstand.

We must take into account a number of preventive measures:

- Never touch a switch, power outlet or electrical appliance with wet hands.
- Before cleaning any electrical appliance, make sure that it is unplugged.
- When it is necessary to use multiple extension cords or sockets, first verify that they are capable of supporting the power of the equipment connected to them.
- Be careful not to run over cleaning machines over cables.
- When unplugging a work equipment, do not pull the cable, pull the plug.

1.3 FALLS TO THE SAME OR DIFFERENT LEVEL

Falls are a major cause of accident at work. They are usually caused by poor lighting, heavy loads, or the presence of obstacles that impede mobility in the work area.

In the case of stairs, it is important to exercise caution when climbing or descending, and no obstacles should be left that prevent the passage. As for hand ladders, they should be checked before they are in use (without deformation steps, non-slip shoes, secure support platform, etc.).

The most common causes of accidents when using hand ladders are:

- Sliding stairs for precarious support, sloping floor, wind, etc.
- Loss of balance due to slipping or sudden gestures when handling heavy loads or tools.
- Breakdown of staircase elements (safety chain, steps).



Preventive Measures

Falls on the same level

- Clean and dry floors quickly.
- Wear appropriate footwear.
- Use warning signs
- Lighten corridors and walkways.
- Do not leave cables in traffic places.
- Be attentive to ground irregularities.

Falls to different levels

- Do not improvise stairs. Unstable objects such as boxes or drums will never be used to carry out high-altitude work.

- Make sure the ladder is in good condition.
- Make sure the ground condition is optimal.
- Do not balance on the scale.
- Avoid hurrying up and down stairs and several steps at a time.
- Make sure that the staircase is carpeted correctly.
- In any case, on high windy days or adverse weather conditions (heavy rain, snow) no outdoor work should be carried out.
- The ladder should never be used at the same time by more than one person.
- Do not climb above the third step, counting from above.



1.4 BLOWS, CUTS AND OBSTRUCTION



Blows are a very common cause of work-related accidents, and are often caused by lack of order. The importance of ordering cleaning must be taken care of for efficient work and the time needed to clean and tidy up tools and jobs.

To avoid obstruction, we will be especially careful not to wear wide clothes or wear rings, bracelets, chains, etc. during work. We have always left surfaces free of objects.

When cleaning the machinery, it must be stopped and disconnected from the power, it is very important that the machine is always in front of us during cleaning to hold it properly.

- Before using a tool, check for any damage. If so, tell your supervisor. On surfaces with sharp edges or sharp parts we must use protective gloves.
- In the case of having to collect cutting material, such as broken glass, use the broom and collector and not with your hands; if they are large objects, use suitable gloves to avoid the risk of cuts.
- It is advisable to have rigid containers to deposit the remains of broken glass, as well as any sharp or sharp object.

1.5 OCCURRED BY THE USE OF CLEANING TOOLS

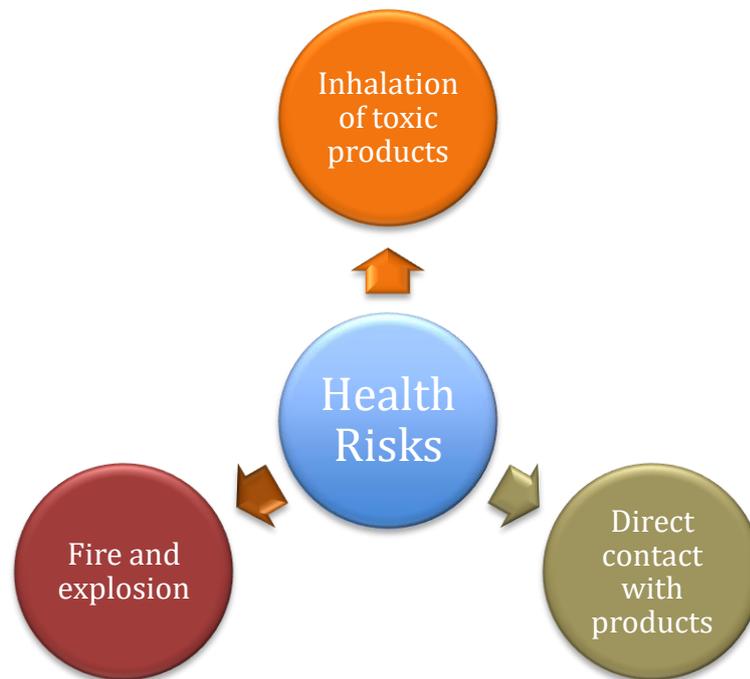
Here are the most common:

Mopes and breathers	Excessive extensions, forced postures, repetitive movements. Slipping and stumbling during wet mopping. Inhalation of dust in the sweep.
Buckets	Slipping and stumbling. Manual handling of heavy loads.
Stairs and steps	Excessive extensions and falls from a height.
Rags and duvets	Excessive extensions, forced postures, repetitive movements. Inhalation of dust when cleaning.
Rotary disc sinks and polishes	Excessive extensions, repetitive movements, great efforts. Vibrations. Slippery, when used for wet cleaning. Stumbled upon cables pulled by the ground. Manual Handling: Equipment can be heavy and difficult to transport from one place to another. Electric discharges.
Vacuum cleaners	Forced postures, push and drag operations. Repetitive movements. Stumbled upon cables pulled by the ground. Inhalation of dust when vacuuming. Electric discharges
Steam cleaners	Forced postures, repetitive movements. Stumbled upon cables pulled by the ground. Burns caused by steam. Electric discharges.

One of the risks associated with cleaning working staff is musculoskeletal disorders. A very high percentage of cleaning work is done by hand, that is, without the help of motorized tools. This involves stretching, repetitive movements, uncomfortable postures, and excessive exertion, which sometimes contributes to the onset of musculoskeletal disorders:

- Symptoms such as itching and numbness, pain and discomfort, muscle spasms, inflammation and discomfort.
- Increase in sick leave.
- Inappropriate use of tools to prevent movements that cause the disease.
- Refusal to perform certain tasks.

Lesson 2 Health Risks from The Handling of Cleaning Products



These products may be toxic, corrosive, irritating or flammable, so the risks associated with using these products are:

1. Direct Product Contact: Irritating or corrosive cleaning products can cause irritation or burns to the skin or eyes.
2. Inhalation of Toxic Products: Products may release fumes or irritating gases that pollute the work environment. These fumes can be caused by a mixture of cleaning products. These gases damage the mucosa and respiratory system.
3. Ingestion of Toxic Products: occurs when swallowed by mouth. Although not the usual risks, the effects can be very bad for the health.
4. Fire and Explosion: These effects can occur when flammable or combustible products are used near heat sources, or are sprayed on flames.

The riskiest time is during the transfer of products from packaging to another, because without careful precaution we can facilitate direct contact, inhalation and the risk of fire.

The following is a table with the most commonly used products and their effects on the human body:

SOLVENT	Inhalation is the most common way of poisoning, though it can also occur through the digestive and skin pathways. It can cause symptoms such as blurred vision, language disorders, headache, abdominal pain...
SOAP	They have low toxicity effects. If ingested, nausea, vomiting, and diarrheal may occur within minutes. If eye contact injury occurs, it may result in mild conjunctivitis.
DETERGENT	Serious respiratory damage may occur after ingestion and inhalation. They have the potential to cause caustic injury.
CAUSTICS AND CORROSIVE	They are part of hazardous substance poisoning.
BLEACH	It causes oesophageal pain if swallowed.
AMMONIA	Inhalation is an important route of exposure. It can cause cough and shortness of breath. Ingestion can cause corrosive injury to the mouth, throat and stomach. Contact with eyes causes irritation.
CLEANING METALS	Can cause corrosive injury and later kidney damage and hypocalcaemia

2.1 HEALTH RISKS - DANGER PICTOGRAM

<p>Health Hazard</p>  <ul style="list-style-type: none"> - Carcinogen - Mutagenicity - Reproductive Toxicity - Respiratory Sensitizer - Target Organ Toxicity - Aspiration Toxicity 	<p>Flame</p>  <ul style="list-style-type: none"> - Flammables - Pyrophorics - Self-Heating - Emits Flammable Gas - Self-Reactivity - Organic Peroxides 	<p>Exclamation Mark</p>  <ul style="list-style-type: none"> - Irritant (skin and eye) - Skin Sensitizer - Acute Toxicity - Narcotic Effects - Respiratory - Tract Irritant - Hazardous to Ozone Layer (Non-Mandatory)
<p>Gas Cylinder</p>  <ul style="list-style-type: none"> - Gases Under Pressure 	<p>Corrosion</p>  <ul style="list-style-type: none"> - Skin Corrosion/Burns - Eye Damage - Corrosive to Metals 	<p>Exploding Bomb</p>  <ul style="list-style-type: none"> - Explosives - Self-Reactivity - Organic Peroxides
<p>Flame Over Circle</p>  <ul style="list-style-type: none"> - Oxidizers 	<p>Environment (Non-Mandatory)</p>  <ul style="list-style-type: none"> - Aquatic Toxicity 	<p>Skull And Crossbones</p>  <ul style="list-style-type: none"> - Acute Toxicity (fatal or toxic)

A danger pictogram contains a symbol, color and graphic elements that transmit specific information about the danger of a particular product. The danger pictograms are aimed at informing. And warn about the dangers associated with the substances or mixtures that make up each product.

This is the globally harmonized System identification, classification and labelling table, a simplified version:

PHYSICAL AND CHEMICAL HAZARDS		
	Explosives	<p>Classification: unstable explosive, explosive, mass explosion hazard, explosive, serious projection hazard, explosive, fire hazard, blast wave or projection.</p> <p>Caution: Keep away from heat sources, sparks, open flames or hot surfaces. No smoking. Wear gloves, clothing, goggles, and protective mask. Use mandatory personal protective equipment. Risk of explosion in case of fire.</p>
	Flammable	<p>Classification: extremely flammable gas, flammable gas, extremely flammable aerosol, flammable aerosol, liquid and vapors.</p> <p>Caution: Do not spray on open flames or other sources of ignition. Keep away from heat sources, sparks, open flames, hot surfaces. No smoking. Keep container closed tightly. Keep in a cool place. Protect from sunlight.</p>
	Gas under pressure	<p>Classification: contains gas under pressure; danger of explosion in case of heating. Contains chilled gas; may cause cryogenic burns or injury.</p> <p>Caution: Protect from sunlight. Wear gloves, goggles, mask that isolates from the cold. See a doctor immediately.</p>

	<p>Corrosive</p>	<p>Classification: May be corrosive to metals. Causes severe skin burns and severe eye damage.</p> <p>Caution: Do not breathe dust, smoke, gas, fog, vapors, and spray. Wash thoroughly after handling. Wear gloves, clothing, goggles, and protective mask. Save under keys. – Keep only in the original container</p>
	<p>Oxidizing</p>	<p>Classification: may cause or exacerbate a fire; oxidizing.</p> <p>Caution: Keep away from heat sources, sparks, open flames or hot surfaces. No smoking. Wear gloves, clothing, goggles, and protective mask. Immediately rinse contaminated clothing and skin with plenty of water before removing clothing.</p>
<p>HEALTH HAZARD</p>		
	<p>Acute toxicity</p>	<p>Classification: fatal if swallowed. Deadly in contact with skin. Inhalation if inhaled. Toxic if swallowed. Toxic in contact with skin. Toxic by inhalation.</p> <p>Caution: Wash thoroughly after handling. Do not eat, drink or smoke during use. If swallowed, call a toxicological information center or doctor immediately. Rinse your mouth. Store in a sealed container. Avoid contact with eyes, skin or clothing. Wear gloves, clothing, goggles, and protective mask. In case of skin contact, wash gently with plenty of soap and water. Remove contaminated parts immediately. Wash contaminated parts before reuse. Do not breathe dust, smoke, gas, fog, vapors, and spray. Use only outdoors or in a well-ventilated area. Wear respiratory protective equipment. In the case of inhalation, transport the victim outdoors and keep him at a comfortable breathing position. Save under lock.</p>

	<p>Health hazard</p>	<p>Classification: May irritate the airways. It can cause drowsiness or vertigo. May cause an allergic reaction on the skin. Causes severe eye irritation. Causes skin irritation. Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Harmful to public health and the environment by destroying stratospheric ozone.</p> <p>Caution: Avoid breathing dust, smoke, gas, fog, vapors, and spray. Use only outdoors or in a well-ventilated area. In the event of inhalation, transport the victim to the outside and rest at a comfortable position for breathing. In the event of ingestion, call a toxicological information center or a physician in case of discomfort. Wear gloves, clothing, goggles, and protective mask. In case of skin contact, wash with plenty of soap and water. In case of contact with eyes, rinse thoroughly with water for several minutes. Remove contact lenses, if worn and easy. Continue rinsing. Do not eat, drink, do not smoke during use.</p>
	<p>Serious health hazard</p>	<p>Classification: May irritate the airways. It can cause drowsiness or vertigo. May cause allergic skin reaction. Causes severe eye irritation. Causes skin irritation. Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Harmful to public health and the environment by destroying stratospheric ozone.</p> <p>Caution: Swallowing and penetration into the respiratory tract. Harm to certain organs \ 10s. It can harm fertility or the foetus. It is suspected of damaging fertility or the foetus. It can cause cancer. It is suspected of causing cancer. It can lead to genetic defects. It is suspected of causing genetic defects. May cause symptoms of allergy or asthma or breathing difficulties if inhaled. If swallowed, call a toxicological information center or doctor immediately.</p>

		<p>Do not provoke vomiting. Save with key. Do not breathe dust, smoke, gas, fog, vapours, and spray. Wash thoroughly after handling. Do not eat, drink or smoke during use. Consult a doctor in case of discomfort. In case of exposure, call a toxicological information center or a doctor. Request special instructions before use. Do not handle the substance before you have read and understood all safety instructions. Use mandatory personal protective equipment. In case of manifest or suspected exposure, consult a doctor. Avoid breathing dust, smoke, gas, fog, vapours, and spray. In case of insufficient ventilation, wear respiratory protection equipment. In the case of inhalation, if breathing is difficult, transport the victim outside and rest at a position where he can breathe comfortably.</p>
	<p>Corrosive</p>	<p>Classification: Causes severe skin burns and eye damage</p> <p>Caution: Do not breathe dust, smoke, gas, fog, vapors, and spray. Wash thoroughly after handling. Bring gloves, garments, goggles, protective mask, Save under lock. Store only in the original container.</p>
<p>DANGER TO THE ENVIRONMENT</p>		
	<p>Danger to the environment</p>	<p>Classification: If released into the aquatic and non-aquatic environment, ecosystem damage may occur due to a change in natural balance, immediately or afterwards. Certain substances or their processing products can simultaneously alter several compartments.</p> <p>Caution: Depending on the potential danger, do not let them reach the drain, on the floor or in the environment. Observe special waste disposal prescriptions.</p>

2.2 FORMS OF ACTION IN CASE OF POSSIBLE TOXICITY CASES:

VERY IMPORTANT!

Actions in case of possible toxicity cases

The protocol for action in the event of an emergency is as follows:

- **Protect:** Before taking action, we must be sure that both the injured person and we are safe. In the case of toxicity for cleaning products, it must be noted that we are away from the product in question so that it can no longer be harmful to us.
- **Warn:** Always we will alert the health services about the accident. It will be very helpful to inform about the product that has caused the poisoning and the effects it has had on the injured person.
- **Aid:** Once we have protected and alerted, we will act on the accident controlling its vital signs.

Lesson 3 Interpretation of the Labelling- Recommendations

To prevent potential risks of chemical origin, we must keep in mind a number of recommendations:

- When using a chemical and whenever possible it should be done in ventilated places.
- The worker must also be responsible for the use they give to the product and the quantities they need to clean.
- Whenever the product requires it, we must not forget to use the right PPE: glasses, gloves, face mask, etc.



We can never forget to read the recommendations on the product labels and never mix several products or home remedies that can cause irreparable damage. Here are some basic recommendations for cleaning products:

Keep the quantity stored to a minimum.

- Consider the danger characteristics of the products and their incompatibilities.
- Group those with similar characteristics and separate the incompatible ones.
- All products must be labelled
- Keep a record of stored products.
- Use security cabinets.

All containers containing a chemical must have the corresponding label that must collect the following information:

Name of the substance or preparation.

Name, address and telephone number of the manufacturer or importer.

Hazard symbols and indications to highlight the main risks.

Lesson 4 Identification and Use of Personal Protective Equipment

The Personal Protective Equipment that may be necessary in the activities of public cleaning are:

<p>Head protectors</p>		<p>Safety helmets if required by the workplace Head protection (hats, caps, hats, etc., knitwear, coated fabric, etc.) for all tasks performed and outdoors on sunny days.</p>
<p>Ear protectors</p>		<p>They can be of various types and must be used by workers in the sector performing tasks in areas with high levels of noise.</p>
<p>Eye and face protectors</p>		<p>Glasses and screens to be used in activities with risk of particle projection.</p>
<p>Protective of the respiratory tract</p>		<p>The appropriate type should be chosen depending on whether they are to be used when working with chemicals or to protect against dusty areas.</p>
<p>Hand and arm protectors</p>		<p>In most activities in this sector it is necessary to wear protective gloves and cuts, and in some cases against chemicals.</p>
<p>Safety or protective footwear</p>		<p>With non-slip sole when working in wet areas and with reinforced toe cap if there is a risk of falling objects that can cause physical harm.</p>

<p>Skin protectors</p>		<p>Protective creams and creams that will be used when performing outdoor tasks on sunny days.</p>
<p>Total body protectors</p>		<p>Height fall protection equipment and harnesses: to keep the worker in touch during cleaning tasks.</p> <p>Signalling clothing (bracelets, gloves) (reflective and fluorescent) will be used to enhance visualization when there is a risk of being tripped.</p>

UNIT 3 Perform the Cleaning of Floors, Walls and Ceilings in Buildings and Premises

Lesson 1 Development of Cleaning Processes

1.1 SEQUENCING CLEANING ACTIVITIES ADAPTED TO EACH TECHNIQUE

The first step in performing the cleaning tasks efficiently is to plan the activities. The following steps are proposed for:

1st: It is necessary to detect the cleaning needs of the building or premises. For this reason, in addition requesting the necessary information from those responsible.

2nd: It is necessary to analyse what cleaning needs the rooms.

3rd: Check the time stipulated for the cleaning of the space in question.

4th: Decide what cleaning utensils, products and techniques will be used in each unit, depending on the surface to be cleaned.



The person in charge must be informed of all the inconsistencies that are detected between the planning and the execution.

1.2 DIFFERENT CLEANING TECHNIQUES



SWEEPING

Sweeping is very important; the technique allows the most efficient collection of dust and debris deposited on the pavement.

It is advisable to start sweeping through the farthest parts of the entrance, to continue on the way to the exit door.

The sweeping must be done daily in all the units, although if we are talking about an outside space, the cleaning can be spaced over time.

The pavements must first be scanned before the rest of the furniture is cleaned, otherwise the dust will settle on the furniture again.



WET SWEEP

For this, a mop soaked in special liquid for mopes or a mop with a water dispenser is used.

It is usually used on pavements that have been crystallized on which dust-free maintenance is essential.

Most important of the wet sweep is that it allows us easy cleaning under the furniture. This allows us to save a lot of time, since we do not have to move the furniture.



VACUUMING

Vacuuming can replace sweeping because they have the same purpose: to remove dust from surfaces. It does not lift the dust from the ground.

Can be used on any surface as it does not damage the different types of materials.

SCRUB



Scrubbing is the most commonly used technique for removing stains on the flooring, also removing any dust that has not been removed with the sweep.

It is necessary to know what material the pavement is, as it will determine the cleaning product to be used.

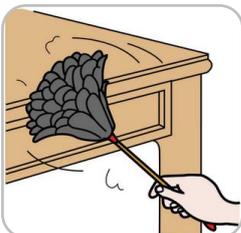
In the case of marble and granite, a product is recommended for delicate pavements. Bleach should not be used on this material as it will remove the glitter from it.

Parquet and flooring require more care, avoiding the need to use too much water for cleaning, and it is recommended to use mops.

The scrubbing should be done daily, especially in the areas that require the most hygiene, such as bathrooms and kitchens.

The tiles will be cleaned by spraying the surfaces, then rinsing the cleaning product with a cleaning cloth. It should be done starting with the highest areas and ending with the lower ones.

DUST OFF



Dusting refers to the removal of dust that is deposited on walls or ceilings and furniture.

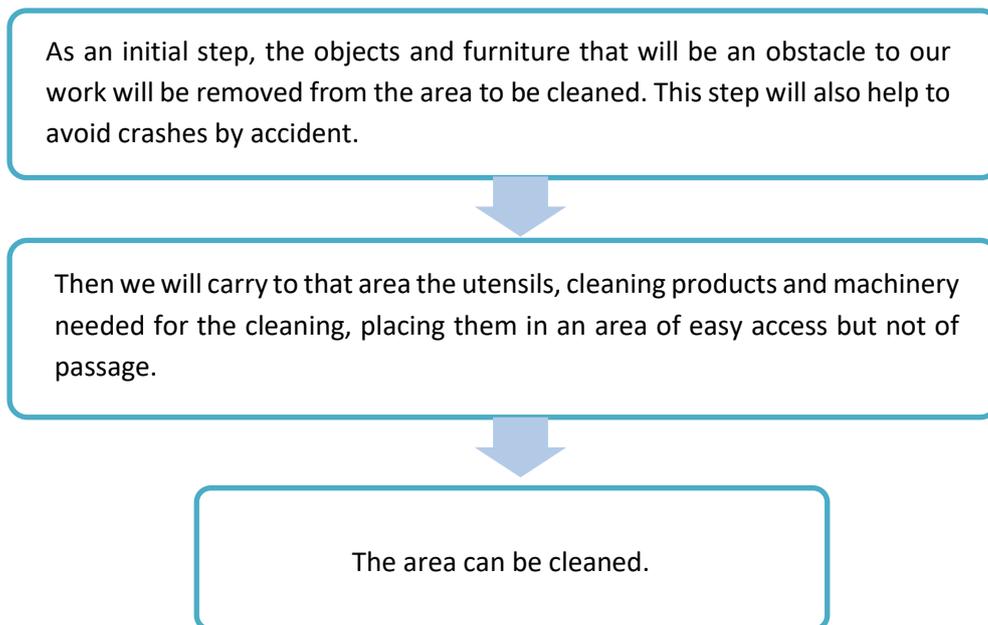
For dusting we can use a duster, if the area is not very large, or a vacuum cleaner.

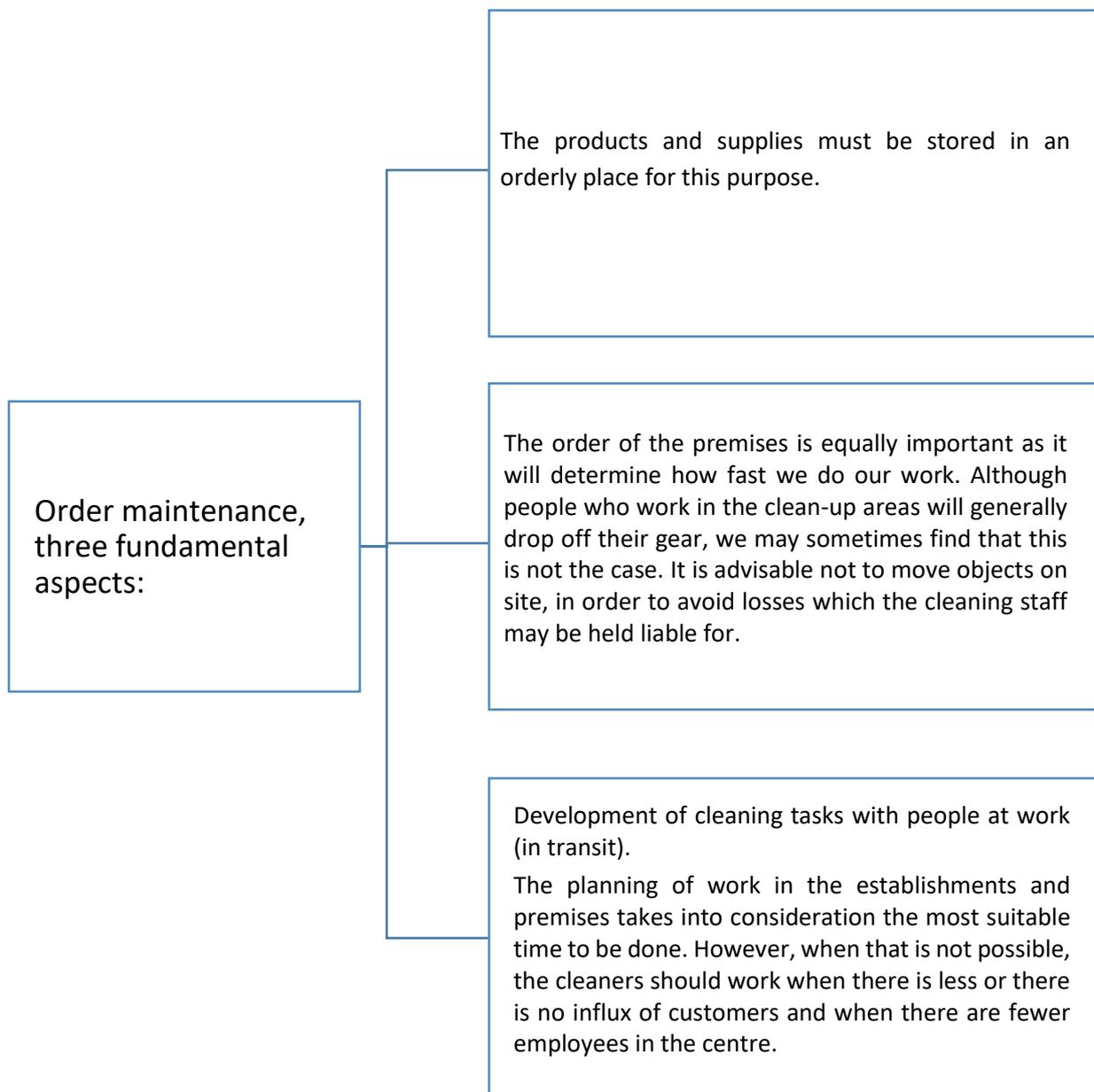
In the case of ceilings, extreme caution should be exercised, especially in the corners.

Lesson 2 Conditioning of the Workspaces

Each workspace has special features that mean more or less difficulty when it comes to cleaning.

2.1 PREPARATION





Sometimes, it is not possible to avoid the presence of people in the space when it has to be cleaned.

In these cases:

- Workers will be asked, depending on their possibilities, to change their location for the time needed to perform the cleaning.
- It will be necessary to evaluate which products are best not to use for the emission of strong smells and toxicity.
- We avoid using noisy cleaning machinery that will disturb the people present.
- If the people in the work area are children, they must be even more careful about the risk involved, warning the minors to stay alert.

2.2 VERIFICATION TECHNIQUES FOR CLEANING TASKS

In order to verify the tasks assigned have been completed successfully, a verification of the work must be performed. To do this, the dust, fingerprints, stains on glass, debris on the pavement, doors, furniture, surfaces, etc. will be checked.

2.3 FOLLOW-UP OF THE WORK PLAN

The work plan is the document detailing the actions to be carried out at the workplace to cover the cleaning needs of the premises and establishments.

To prepare it, aspects such as the following must be taken into account:

- Time spent on each activity.
- Use of the facilities.
- Dimensions of the area to be hygienized.
- Utensils or machinery to use.
- Schedule when it is best to carry out the activity.
- Areas of greater use and, therefore, of greater need for cleaning.

The work plan is a very useful instrument, because if you follow it in detail and it is well worked out, it is a guarantee that our work will develop in the way we are required.

2.4 INTERPRETATION AND EXECUTION OF INSTRUCTIONS RECEIVED

These rules relate to a series of instructions that the employee will receive from the employer, which will be on how, when and what to clean

These instructions can be received at two different times:

- Beginning of the employment relationship.
- During the employment relationship. Once the employment relationship has begun, the instructions may differ from those initially provided for by different circumstances.

Lesson 3 Handling and Maintenance of Cleaning Utensils

Knowledge of the procedures and rules of the work centre.

The purpose of the existence of procedures developed in the area of cleaning is to maintain a uniformity in the performance by the different operators who can carry out their activity in the same facilities. All employees must know both procedures and rules.

It is important to know the cleaning utensils indicated for the different surfaces in order to obtain optimum results and to keep them in a correct state of conservation.

3.1 IDENTIFICATION OF FLOORS, WALLS, CEILINGS



Parque Mops

The sheath is the part that comes in contact with the ground on which will help us to collect dust and solid debris installed in the ground.



Regular Mop

An implement consisting of a bundle of thick loose strings or a sponge attached to a handle, used for wiping floors or other surfaces.



Cloths

Cleaning cloths are tools that are used to remove dust from surfaces.



Cleaning Trolley

This is a means of transporting cleaning utensils.



Scrubber

Scrubber is an indispensable tool in cleaning floors. It can be made from different materials including cotton or synthetic materials such as microfiber



Bucket

Buckets are used to mix cleaning products with water.



Brush

This is a very useful tool for household chores as it allows us to collect dust, debris from the pavement, grouping it in one place for later collection.

3.2 APPLICATION OF THE DIFFERENT CLEANING TOOLS

It is essential to consider the materials with which the surfaces are manufactured to avoid causing damage to them.

Regarding the **mop**, each of them is indicated for the cleaning of different surfaces. For example, if the surface to be cleaned is parquet, floor, porcelain or stoneware, it is advisable to use microfiber scouring pads as they are more absorbent. For terrazzo or marble floors, cotton rubs are best suited.

The **brushes** are also a variety depending on the use that will be given. Some have long, hard filaments, ideal for exterior surfaces, and some are shorter, indicated for delicate surfaces.

The use of mops is not usually indicated on surfaces such as glass or wood. They are very useful for removing debris adhering to surfaces.

Wipes can be used to remove dust from surfaces, for which cotton, polyester.

Mops can be used for pavements on which water is not recommended, for example flooring and parquet.

3.3 CONSERVATION PROCESSES OF UTENSILS.

In order to extend the life of the cleaning utensils, it is necessary to take into account their conservation.



All tools used in the cleaning task are dirty and worn out for continuous use. For the proper conservation of these, the following guidelines of action are proposed:

- When the baths and sinks are finished, they will be cleaned and allowed to dry.
- It is not recommended to be stored if they are damp as they will be impregnated with an unpleasant smell.
- Cleaning utensils should be stored in a safe place away from damp areas
- They must not be used for different purposes from what they are intended for.

Lesson 4 Utility Appliances - Easy to Use Vacuum Cleaners



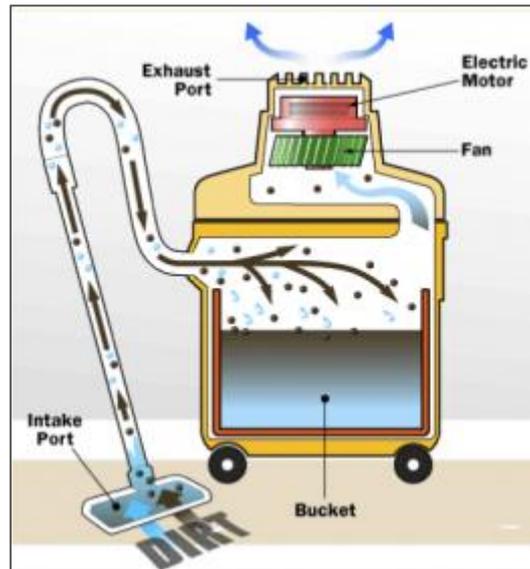
Vacuum cleaners are very useful appliances in the buildings and premises that are the subject of our work. Non-industrial vacuum cleaners, intended for cleaning smaller areas, have different "nozzles" that will be used, depending on the different surfaces.

The main advantage of using vacuum cleaners is that the dust will be absorbed and not suspended as in traditional sweeping.

Industrial vacuum cleaners, used in larger premises and establishments, have the advantage of having greater suction capacity and the ability to vacuum liquids or solids.

The uses for which the vacuums are indicated are the following:

- Ground cleaning
- Cleaning walls and ceilings
- Clean nooks and crannies



Vacuum cleaners are composed of several parts:

- Exhaust port
- Electric motor
- Fan
- Bucket
- Intake port

UNIT 4 Waste and Their Classification

In this section, we will take a closer look at the types of waste and their classification using different criteria.

In principle, to avoid confusion, the difference between waste and debris will be indicated:

Garbage is the waste material or product that, due to its lack of economic value, must be disposed of.

Waste is a matter that is worthless for the purpose it was produced.

Lesson 1 Waste and its Classifications

1.1 DEFINITION

The main difference is that waste can be reused for other purposes while not litter.

When it comes to waste management, we mean the collection, treatment and disposal of waste through human action.

Waste is disposed of at the places intended for collection and treatment. Depending on the type of waste different treatment is required and it will have a different destination.

Biodegradable waste, the main feature of which is that they disappear naturally through oxygen, open air and the microorganisms that cause their decomposition, must also be controlled, as they can cause problems in the environment and in the health of the people.

1.2 CLASSIFICATION

Waste can be classified according to their composition and origin:

According to its composition:	
<p>Organic waste: these are biological waste, such as food residues, pruning, etc.</p>	
<p>Inorganic waste: waste whose origin is not biological but industrial or elaborated through artificial process, for example, plastics, fabrics, etc.</p>	
<p>Waste mix: it is the mixture of the two previous.</p>	
<p>Hazardous waste: those that are a danger to the health of the people or the environment, for example radioactive, corrosive waste, etc.</p>	
<p>Inert waste: This is neither dangerous nor biodegradable, nor does it have a negative effect on the quality of the water or the environment.</p>	

Urban waste: these are those generated by the activity that takes place in the urban centers, such as in homes, offices, shops, etc. Urban waste is composed by:

- Organic matter: These remains from the preparation of food and foods which are rejected.
- Paper and cardboard: newspapers, magazines, advertising, packaging boxes, etc.
- Plastics: disposable bottles, bags, packaging, plates, glasses and cutlery, etc.
- Glass: bottles, etc.
- Metals: cans, jars, etc.
- Others.



Industrial waste: those produced by various industries. Most of them can be recycled and reused.



Hospital waste: Those generated by health activity, which are considered hazardous waste. In the latter, we can find needles, scalpels, vaccines, infectious waste and everything that can be transmitted by a disease.



Agricultural and livestock waste: This includes waste from primary sector activities, such as agriculture, livestock, fishing, forestry and hunting. Forestry agricultural waste is composed mostly of branches, straws, remains of animals and plants. These wastes have a high-energy content, so they are used to obtain methane gas, which when burned provides energy.



Mining wastes: those generated by the extractive activity carried out in the mines, both underground and outdoors. Mining waste is similar to inert waste so the treatment will be similar, using it as a filler in works or depositing it in suitable landfills.

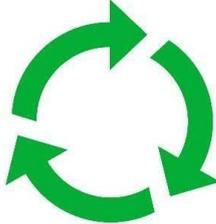


Lesson 2 Treatment of Waste

2.1 TERMINOLOGY

It is important to know the means for waste treatment.

The waste treatments are **recycling**, **valuation** and **disposal**. Depending on the type of waste, one treatment or another will be applied.

<p>a) Recycling: Recycling is the transformation of waste for its initial purpose or for other purposes. Example: glass bottle.</p>	
<p>b) Disposal: Disposal is the process aimed at the total or partial destruction of waste, using means that do not endanger the environment and human health.</p>	
<p>c) Reuse: The principle of reuse is to prevent the creation of waste environment and human health.</p>	
<p>d) Valuation: Any procedure that allows the use of the resources contained in the waste without endangering human health and without using methods that could cause harm to the environment and human health.</p>	

To apply any of the above-mentioned waste treatment, the waste must be properly separated. For this reason, there are different containers for different types of waste. The colours are different depending on the country, but for example, in Spain:

The **yellow containers** for the rejection of containers, bricks and cans.

The **green containers** dedicated to the collection of glass. Glass bottles and containers may be deposited in them, but not glass, mirrors, ceramic tiles, plates, fluorescents, etc.

Paper and cardboard will have been rejected **in blue containers**. The contents of these containers are transported to the recycling plants where they are compressed and converted into bales. Then it is soaked and dried, ironed and rolled up in coils. It is these coils that are used to make new boxes, wrapping paper, toilet paper, etc.

The **grey** container is intended for organic waste. There, animal and vegetable substances such as food and gardening waste will be deposited.

2.2 PROCESSES OF SEPARATION, HANDLING OR STORAGE OF WASTE

In this section, we will go through the itinerary that the waste carries out from the moment they are generated until they are rejected.

Separation

The waste separation process can occur at two different times:

- At the origin of the waste.

Agricultural, sanitary, industrial, mining, etc. waste is separated from the waste similar to urban waste, as they will be disposed of differently.

In the case of waste similar to urban waste (paper, cardboard, packaging, etc.) they must be separated into classes to facilitate recycling, and they will be stored in the different containers designed for this purpose.

- Once they have been collected, the waste treatment plants undergo a necessary separation process again, as separation at the origin is sometimes not always appropriate.

Handling

Waste handling is reference to search management. Therefore, the manipulation will be necessary lasting for the way that burn the waste and that is the resume in:

- Manipulation
- Transportation
- Treatment.

The waste handling process involves a number of environmental and health risks associated with people.

- Problems caused by improper handling of waste
- Water and soil pollution
- Air pollution.

Storage

A waste is defined by the action of retention temporarily, under control conditions.

Waste will be stored differently depending on the type of waste.

Urban solid waste: the storage will be through containers of different colours.

Industrial waste is stored in large volumes until they are disposed of for reuse.

For hazardous health waste, requires a series of requirements that must be met by the containers intended for this purpose.

Lesson 3 Good Environmental Practices



Good Environmental Practices are simple and useful measures that both employees and companies can take to reduce the negative environmental impact of their activities.

Here are some of the steps we can take in our workplace to achieve responsible consumption of resources.

A faucet that loses 1 drop per second causes a waste of 30 liters of water a day, and a broken cistern can consume 150 liters.

Measures to save water:

Close the taps when we do not need them to avoid wasting water.

Check counters, pipes and boilers to detect possible leaks or excessive consumption.

- Notify the maintenance service if there is a malfunction, to avoid leaks
- Do not use the toilet as a waste bin.
- Use hot water only when necessary to avoid waste of energy.

Rational energy consumption

Illuminate only the areas you are using and adjust the light levels according to our needs.

- Turn off the lights when they are unnecessary, even for short periods of time.
- Organize our workplace so that we can make the most of natural light.
- Open shutters, curtains, blinds, and keep windows clean to allow natural light.

Reduction of the needs of matter

- Replace disposable paper towels and handkerchiefs with towels and cloth.
- Avoid wasting mail.
- Review subscriptions and, if possible, change them electronically.
- Apply new information and communication technologies (internet, e-mail, mobile, etc. to save paper, energy and avoid travel and waste).
- Use recycled paper.

Management of the generated waste

Waste is waste that pollutes, after all, wasted resources: "**The best waste is the one that does not produce**". That is why, first of all, we must make every effort to reduce and reuse it.

Selective waste collection

- Yellow container (containers): All lightweight containers such as plastic containers (bottles, jars, bags, trays, etc.) of cans, drinks, preserves, etc.) must be deposited in this.
- Blue container (paper and cardboard): Cardboard containers (boxes, trays, etc.), as well as newspapers, magazines, wrapping papers, propaganda, etc. must be placed in this container. It is advisable to fold the boxes so that they take up the least space inside the container.
- Light green container (glass): Glass is deposited in this container.
- Black container: The rest of the waste that is not included in the previous groups is deposited, mainly organic matter.



PART 3 Specific Cleaning Procedures



UNIT 1 Furniture

Lesson 1 Types of Furniture and their Composition

The most common furniture we can find in the place where we develop our tasks:

Office Table	All the small items on the furniture must be completely removed for proper cleaning of the surface.	
Office Cabinets	Certain contents in drawers, in offices and libraries in general may contain sensitive data or be easily destroyable, thus you should ask permission for cleaning or be extremely careful with cleaning inside this furniture.	

<p>Shelves</p>	<p>Where books, dossiers or relevant items stored in shelves are placed. They need to be removed once in a while to remove any dust that may have accumulated beneath them.</p>	
<p>Chairs</p>	<p>The chairs of the offices usually have a textile or a natural or artificial leather finish which will make us differentiate the product we have to use.</p>	
<p>Exhibitors</p>	<p>The disadvantage of this type of furniture is the dirt on the glass and the fragility of the furniture.</p>	
<p>Carpets</p>	<p>It accumulates a lot of dust and can be stained, with the difficulty of removing these stains on textile surfaces.</p>	
<p>Broom Sweep</p>	<p>Decks are areas that rise above the rest of the rooms.</p>	

<p>Lockers</p>	<p>They are used to store the personal items.</p>	
<p>Computer Equipment and Photocopier</p>	<p>Extreme caution should be exercised when we clean electrical devices.</p>	
<p>Air Conditioning Equipment</p>	<p>In Temperature conditioning equipment we should clean apart from the exterior area, the internal parts of the machine and specifically the filters which collect dust.</p>	
<p>Lighting Elements</p>	<p>The lighting and other electric devices must be unplugged before being cleaned.</p>	
<p>Trash Bins</p>	<p>Will need to be emptied periodically, hygienizing both outside and inside.</p>	

<p>Decorative Items (Paintings, Curtains, Mirrors, Rugs, etc.)</p>	<p>The most common textile components are rugs and curtains, which will need to be washed periodically to remove any stains and aspirate to prevent dust, build up. On the other hand, frames and mirrors must be cleaned of dust and fingerprints must be removed.</p>	
<p>Windows</p>	<p>A specific product is usually used for the fabrication material of the frames and a window cleaner.</p>	

Lesson 2 Identification of the Different Cleaning Products

Generally, most of them are chemicals that have a negative impact on the environment and should be used with caution, as they can be harmful to people's health, so they are every organic products that are less harmful are becoming more common.

Next, we will review the most common products:

<p>Cleaners. Cleaners are the most commonly products used for cleaning furniture without regard to the specificity of each surface.</p>	
<p>Detergents: These are cleaning products that are not indicated for any particular stain but are generally used to remove dirt from the fabric. They are indicated on the upholstered furniture</p>	
<p>Shampoos: They are characterized by foam cleaning products, are made of emulsifiers and degreasers and are used for the removal of dirt such as grease, oils, other foods, etc.</p>	
<p>Degreaser: These products are designed to eliminate fats and oils. They are indicated for the removal of such spots on the textile surface.</p>	
<p>Disinfectant: Used to remove dirt and microorganisms leaving the surface free of bacteria and viruses.</p>	
<p>Polishes: They can be used on wood, metal or pavement. They are composed of oils or acids.</p>	

Specific Products:

Cleaning glass: Glass cleaning products are products specifically indicated for cleaning glass.



Air freshener: Its use is intended to mask the unwanted smell of the sinks or rooms, offering a pleasant smell.



Cleaning metals: Within the metal cleaning, there are specific for the different types of metals most used: silver, steel, aluminium, copper, bronze, brass, etc. Before using any of them, it is necessary to carry out a previous cleaning to eliminate any dust and stains that may be present.



Cleaning furniture: These are special products for cleaning wooden furniture. One of the main problems with wood is the ease with which it is scratched, which is why most furniture-specific cleaners are going to incorporate a scratch repairer compound, which gives them a fresh look.



Skin Cleaner: Its constituents are very strong acids that are used to remove materials adhering to others, such as the inside of pipes. Extreme precautions should be used as they can be harmful to people's health



<p>Descaling: Its constituents are very strong acids that are used to remove materials adhering to others, such as the inside of pipes. Extreme precautions should be used as they can be harmful to people's health.</p>	
<p>Stain remover: Used on textile upholstery and carpets and rugs to remove hard stains</p>	
<p>Anti-glare: These are products that remove the lime and sediment from the water in the shower and sinks.</p>	

Lesson 3 Use of Cleaning Products and Disinfection of Furniture

We can see in a table the products mentioned in the previous section, as well as the composition in indications for use:

PRODUCTS	INDICATIONS
Bleach	Surface, objects or textiles that want to be disinfected or bleached.
Detergent	Suitable for fabrics
Degreaser	Treatment for greasy stains
Carpenter cleaner	Carpet and upholstery cleaning
Furniture cleaner	It is used in wood
Toothpicks	Indicated in difficult spots on fabrics
Skin cleanser	Metal elements
Metal cleaners	Metal elements
Air fresheners	Give good smell in different spaces

Lesson 4 Furniture Cleaning Techniques

There are different techniques depending on the composition of the furniture in question. We can divide the types of furniture into two:

The tough ones we may encounter outdoor furniture. This type of furniture is usually made of plastic and tolerates cleaning with large quantities of water.

Those that need to be cleaned more carefully. As for less durable furniture, or need more specific care, we will talk below. First, it is necessary to know the material with which it is manufactured in order not to damage it.

4. 1 SEQUENCING ACTIVITIES



1st

The cloth will be folded with the idea of using only one part at a time. As it gets dirty, we will use other parts of the bath/cloth. It must be impregnated with the product of choice or with water.



2nd

Dust will be eliminated, starting with the tallest furniture and continuing to lower. The order will always be from top to bottom. If there are lights or paintings, they must also be taken into account. In the case of tables or chairs, the last should be the legs.



3rd

The objects that are on the furniture to be cleaned will have to be temporarily moved, with special care for those that may scratch the surface of the furniture



4th

Surfaces will begin to be cleaned in the areas furthest from us, and then those closest to them. Dust should be pulled to the edge of the furniture to prevent any debris.

This sequence can be applied to chairs, office desks, shelves, meeting tables, cabinets, etc.

For furniture with textile coating areas, cleaning of the textile parts will require the use a vacuum cleaner and, in the event of stains, a damp cloth moistened with ammonia. If the furniture has a leather coating, this area will be the first to be cleaned with a specific product for this matter.

The order would be as follows:

- Vacuuming of textile areas of furniture
- Removal of blemishes, if necessary, or cleaning of skin areas
- Cleaning of non-textile furniture parts, starting with the highest areas, to remove the lower parts and / or legs.



In cases where the furniture is made of metal or aluminium, a damp cloth impregnated with a chemical indicated by these materials may be used.

For computer equipment, the following recommendations are proposed:

- To clean the computer equipment, they must be switched off.
- When cleaning computers outdoors, a dust-soaked product may be used to trap dust.
- For keyboards, we recommend vacuum cleaners.
- A slightly damp cloth can be used to clean the keys.
- Computer screens can be clean with products that are suitable for devices that accumulate static electricity
- Phones must also be cleaned thoroughly for hygiene reasons.



4.2 CONDITIONING OF THE WORKSPACES:

Act on the environment

Different criteria will be verified, such as:

- That the area is completely free of elements that could have a negative effect on our work.
- Those risks could pose a threat to the health of people in the area or those who carry out the cleaning.

If any of the above issues are noticed, action must be taken to isolate them sufficiently to eliminate the risk.

Perform the tasks of cleaning furniture with people present or in transit

The process of cleaning furniture in buildings and premises is even more complicated when people are present in the area to clean. It is usually quite common for both the client and company staff to be in the area where the cleaning is being performed.

To avoid such situations, it is advisable to use the appropriate signage:

- If you are sitting at a desk in your office, you will be kindly asked if you want to clean your table

- In the event that the person in the work area is a customer, for example in a waiting room, they will be kindly told to another place where they can continue to wait.

4.3 SELECT AND IDENTIFY THE DIFFERENT FURNITURE CLEANING TOOLS

We recommend observing the surface to be cleaned, identify the type of dirt that is to be removed and check which products or products are available. The basic tools, such as the following, will be used for cleaning the furniture:



Wipes



Brush



Duster



Sprayer

Wipes: Wipes are useful made from fabrics that are used to collect dirt such as dust, liquids, etc. Depending on the fabric they are made of, they will be suitable for one type of dirt or another. The most commonly used materials for the production are the following:

Cotton: Cotton gives rise to a natural fiber used to make soft, absorbent fabrics.

Polypropylene: they are very resistant plastic fabrics that give the baths the characteristics of absorbency and resistance, since they avoid that they are undone by the use.

Polyester: is a plastic material that gives fabrics great drying power.

Polyamide: used in combination with other materials, providing softness, waterproofness and resistance to cleaning.

Viscose: This fabric has properties that give the baths a great drying and absorbing capacity.

Microfiber: Microfiber is a fabric made from the braiding of tiny fibers of polyester fiber. Its qualities are the impermeability and resistance.

Through the mentioned fabrics, the following wipes are made:

TYPES	QUALITIES	INDICATIONS
Window cleaner mirror	Allows complete drying of the surface.	Glasses, furniture with glass and mirror areas, form furniture and melanin, wood, etc.
Absorbents	Great absorption and drying power. They are easily washable. It does not leave fluffs.	Granite surface furniture, or other surfaces, etc.
Cotton	It can be used dry. Although moist, they also do not have the ability to dry.	Melanin or form furniture.
Microfiber	Absorption and drying power. It does not leave fluffs	Wood and glass furniture. Computer screens or televisions.

In order to distinguish those used in one area or the other, there are different colours that help to distinguish them.

Most common cleaning tools

As we have mentioned before, the most common in the cleaning of furniture are the cleaners, mops, dusters, brush and sprayers.

- The **wipes** and **mops** can be washed in the washing machine, regardless of the fabric they are made of. It is important not to use hot water as it can damage the tissues.
- **Artificial dusters** will be cleansed with water and a neutral cleaner, allowing them to air-dry without contact with any surface to prevent them from taking on strange shapes.
- **Natural dusters** the plume must be shaken to remove any adhering dust. If you want to do a more thorough cleaning, use lukewarm water and very mild neutral soap.
- **Dusters** are a very useful cleaning tool that is used to remove dust and dirt from furniture and other items. It is important to keep in mind that dusters do not collect dust but are disposed by air.

We can find two types of dusters:

Natural dusters: These can be bird feathers, such as ostrich, wool or fur. The lightweight texture of natural dusters easily attracts dust, which is the most recommended. The downside is that it easily deteriorates and is difficult to maintain.



1. Shake the quill to remove any adhering dust.
2. To clean the duster, warm water can be used by following the steps below:
 - Very mild neutral soap can be used.
 - It can be submerged in water and rotated until it is clean.
 - Rinse thoroughly to remove soap residues. We will squeeze to remove excess water carefully so as not to remove the feathers.
 - For drying, it will be in contact with air without the feathers in contact with any surface.
 - Store in a dry place.

For proper maintenance of the ostrich dusters, we recommend:

Synthetic dusters: The filaments of these dusters are usually made of nylon, yarn, acrylic or polyester. The advantage is that they are more durable than natural ones and easier to maintain, as a disadvantage, they are not as effective as natural ones.



Scouring pads: scouring pads are used for general cleaning of surfaces. Although better suited for kitchens and bathrooms, they can give good results on sturdy surfaces. For this reason, there are different classes of sinks depending on the material they are made of. This variable will be the one that determines the surface on which it will be used.

The most common types are:

Green scouring pad	Is the most common and its fibres offer intermediate hardness. It is suitable for kitchen utensils. If we use this type of mop in baths or glass, we risk scratching their surfaces.	
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<p>Blue scouring pad</p>	<p>Its fibres are softer. It can be used on glass and other scratches easily.</p>	
<p>Aluminium scouring pad</p>	<p>Aluminium scouring pad: Due to the material it is made of, it is the toughest of all and can scratch almost any surface with the least amount of rubbing, so it will not be used for cleaning furniture.</p>	
<p>Straw scouring pad</p>	<p>It is environmentally friendly and effective with embedded dirt, although it can scratch delicate surfaces.</p>	

The mops usually incorporate a sponge part that is softer than the mop. In some cases, the mops incorporate a crack between the hardest part and the sponge to facilitate attachment and prevent damage to the fingers and nails. This type of mop is known as nail polish.

The maintenance of these instruments is very simple, since they can be washed by entering the washing machine. It is important to keep in mind that it must be dried outdoors and not stored.

Brushes: Brushes in general are quite useful when cleaning furniture with a textile coating. With its use, in the case of very thick tissues with a tendency to adhere to lint and the like, these particles are detached.

Upholstery cleaning brushes can also be used in combination with a cleaning product. To do this, you must first apply the product and then use the brush to get a good result.

There are different types of brushes, each of which is suitable for a surface type. The most common are the following:

- **Nylon Bristle Brush** - Consists of consistent bristles that make it easy to clean textile surfaces such as carpets, rugs or upholstery without damaging the materials.
- **Horse Hair Bristle Brush** - Suitable for delicate surfaces such as upholstery or delicate leather. Prevents surface deterioration.

Sprayers: These are useful to help cleaners control the amount used, avoiding excessive use of the quantity used and eliminating the possibility of unnecessary spills.

In the market they exist a great variety, being the most usual the following: until it is completely dry.

<p>Manual Sprayers: They are very lightweight and easy to use. Each time the trigger is triggered with a finger, we have a spray of the output it contains.</p>	
<p>Pre-Pressure Sprayer: Suitable for larger areas. The sprayer gains pressure by activating the lever and to spray the product simply press the trigger.</p>	
<p>Industrial sprayer: can be as previous, manual or pre-press, but differs by the material with which it is manufactured that supports the containment of chemicals.</p>	

4.4 CONSERVATION AND CLEANING OF THE UTENSILS

As we have mentioned before, the most common in the cleaning of furniture are **the cleaners, mops, dusters, brush and sprayers.**

- The **wipes** and **scouring pads** can be washed in the washing machine, regardless of the fabric they are made of. It is important not to use hot water as it can damage the tissues.
- **Artificial dusters** will be cleansed with water and a neutral cleaner, allowing them to air-dry without contact with any surface to prevent them from taking on strange shapes.

- **Natural dusters** the plume must be shaken to remove any adhering dust. If you want to do a more thorough cleaning, use lukewarm water and very mild neutral soap.
- The **brushes** can be washed with soap and water. Allowed to air dry before storing.

4.5 USE AND APPLICATION OF THESE UTENSILS

The dust of furniture is a very common situation, as most of the dirt we find on the furniture comes from the street and is deposited on all surfaces.

To remove it, you must first sweep the floor. Cleaning is always done from top to bottom. If you have chosen a cleaning cloth, it will be impregnated with a cleaning product suitable for the surface to be cleaned.

If the furniture is wooden, the wiper does not have to be very damp and then we will apply a product that contains wax or similar and covers any possible scratches.

Use a cotton cloth specifically for this type of surface, or a glass wipe moistened with water, on the furniture's mirrors or mirrors.

If the furniture has metal or chrome plating, a metal-cleaner product should be used, being careful not to stain the wood areas with such products, as they may deteriorate.

The wipes will be passed over the furniture, starting with the area furthest from us to end the one closest to it.

In the case that we need to use a duster in order to reach inaccessible, we will go, gently through the furniture. Their feathers or bristles will reach the most inaccessible corners.

To clean computer screens or TVs, a soft, clean and dry cloth is used.

They propose the following steps:

1st: Vacuuming the dust may be enough for daily cleaning or in the absence of stains.

2nd: If there are stains, a detergent and a brush can be used to make it easier to dissolve.

3rd: It should be noted that the furniture is damp to prevent anyone from drying out and getting wet.

4.6 VACUUM CLEANERS & OTHER HOUSEHOLD APPLIANCES TO CLEAN TEXTILE COMPONENTS

Furniture that has textile components, as well as carpets and rugs in the areas undergoing cleaning, needs proper treatment, as the techniques or instruments used for all other surfaces are invalid.

We can distinguish which appliances to use, depending on the type of dirt we want to remove. Although in most cases these will be dust and dirt particles, we will also find stains on the textile surfaces that will require specific treatment.

Next, we will review the appliances for cleaning dust on textile surfaces:

Vacuum cleaners with bag	These are the most common vacuum cleaners we can find in any home or workplace.	
Vacuum cleaner without bags	Bugless vacuum cleaners incorporate a water tank to which dust and aspirated debris will go, so that for cleaning we will only have to empty the water tank.	
Robot vacuum cleaners	Their autonomy allows them to collect dust and individuals without the supervision of a professional. They have a battery that must be charged before it can perform its function.	
Vertical vacuum cleaners	They have the advantage of their great ease of use. They are light and manageable. They exist with a battery to be recharged or to be used connected to the mains.	

Hand vacuum Cleaners	Handheld vacuum cleaners are intended for cleaning small areas or hard-to-reach spaces. They can work with rechargeable battery or with cable. They do not use a bag, but a deposit that must be emptied each time it is used.	
Plane vacuum cleaners	Plane vacuums are indicated on large surfaces such as hotels, exhibition halls, offices, etc. They have a brush system that keeps the carpet clean and fluffy for longer.	
Steamers	Steam machines can be used on different surfaces. They are used for deep cleaning of carpets, tiles, curtains, windows, etc.	
Clean foam carpets	The clean foam carpets machines have very soft swivelling discs that permeate the carpet. Once the foam has dried, it must be aspirated. This technique is suitable for short-haired carpet flooring.	

It is always necessary to monitor that the operation is correct, otherwise the maintenance company will be notified and that it can be checked. In the second case, it must be cleaned and thoroughly cared for after use.

In general, the following indications are offered:

- Air filter cleaning
- Power cords
- Exteriors of the machinery
- Water Tank Check
- Batteries

Lesson 5 Measures to Prevent Occupational Hazards in Cleaning Furniture

5.1 IDENTIFICATION OF SPECIFIC RISKS RELATED TO CLEANING.

In the beginning, we will classify risks into three sections:

Risks that cause physical damage.

<p>Slipping: produced on the dock floor. To prevent these types of risks, it is recommended not to step on wet or slippery floors and to wear suitable footwear that is both comfortable and non-slippery.</p>	
<p>Stumble: Sometimes these problems are due to the placement of furniture or cleaning items in inappropriate or passing places.</p>	
<p>Falls at different levels: They usually occur due to improper use of stairs.</p>	
<p>Cuts: Generally caused by the use of sharp objects. Caution must be exercised when using such objects.</p>	
<p>Drop of objects from different heights: we mean objects that can be placed in height and that, when trying to clean the area, can fall on us.</p>	

<p>Burnt - abrasive products can cause it.</p>	
<p>Intoxication through the use of different cleaning products, either by inhalation or ingestion.</p>	
<p>Electrocutions: They can be caused by direct contact with damaged or ignited electrical machines.</p>	

Risks that cause illness: We refer to muscle and bone disorders associated with repetitive activities resulting from improper handling of loads. As a recommendation to avoid them, the following are suggested:

- Bend down by bending your knees instead of bending your spine.
- Do not lift weights above shoulders.
- When carrying a load, do it in such a way that it remains as tight as possible to the body.
- In the case of dragging a piece of furniture, it is better to push than to pull it.

Risks that can cause psychological harm: These are directly related to the work environment, motivation and recognition. It is very important to avoid this risk. If the work is carried out in a suitable environment where the worker feels valued, respected, and the stress level is reduced as much as possible, these risks can be avoided.

5.2 USE OF THE EQUIPMENT AFTER IDENTIFICATION OF THE RISK

It is important that the use of work equipment is appropriate. Non-electric cleaning utensils do not need the supervision that is required by the machinery.

It is recommended that, in the absence of specific knowledge on maintenance and supervision, use the instruction manual for each machine.

As general recommendations, the following are stated:

- Check that the wiring is in optimum condition, verifying that there are no cuts or cracks in them.
- In the case of machines using water, check that the tank is full, otherwise the engine may be damaged.
- When using a machine with battery, check that the battery is sufficient for the task to be performed.

UNIT 2 Toilet Cleaning and Disinfecting Techniques

Lesson 1 Sanitary Appliances and Accessories for a Sink

The most commonly cleaning techniques used in the washroom are:

<p>Bath or Shower: They are made of porcelain material. This material has a non-porous surface, which facilitates hygiene.</p>	
<p>Bidet, toilet, urinal and toilet: Also made of porcelain material.</p>	
<p>The screen: it is used to prevent water from escaping from the bathing area. We can find them made of <u>glass, plastic or aluminium</u>.</p>	
<p>Walls: In general, they will be covered with tiles from the floor to the ceiling. They are usually made of stoneware, marble, etc.</p>	
<p>Faucets/taps: Made of chrome plated material. They can accumulate a large amount of limescale, especially in hot water taps, as the temperature facilitates adherence.</p>	
<p>Washbasin/sink: A basin, typically fixed to a wall or on a pedestal, used for washing one's hands and face.</p>	

1.1 DISINFECTION TECHNIQUES FOR TOILETS, BATHS, SHOWERS AND BIDETS

Disinfection of toilets involves the use of products and techniques that facilitate the elimination of prejudicial germs for the organism of people.

Although sanitary ware is made of porcelain, which is a non-porous material that does not allow germs to spread, it must be kept in mind that water has a large amount of limescale that is deposited on the surface of the toilets. They create a new porous surface that becomes a habitat for these germs and bacteria.

For the proper disinfection of the toilets, it is necessary to carry out the descaling of the toilets. This can be done with an anti-aging product; then avoiding mixing chemicals, you can add some disinfectant such as bleach or chlorinated detergent. In this way, proper disinfection and cleaning is achieved.

Let's look at the cleaning techniques for the different elements that are present in a toilet:

The Toilet:

<p>Apply a disinfectant solution to the interior and wipe it with a brush. Let it act.</p>	
<p>With chlorinated detergent and a damp cloth, continue to clean surfaces and cover.</p>	
<p>Finally, wipe the toilet cloth with a dry cloth. It is important that the rags used in the bathroom are for the exclusive use of this area of the homes. Rub the inside of the toilet.</p>	

An anti-aging product should be used every week to remove any limestone residues.



Bathtubs and Showers:

Rinse the bath or shower to remove any debris.



Apply disinfectant solution and leave it on. Then rub with a clean cloth or scrubber. It will also be performed on the screens. The profiles of the bulkheads and corners will be emphasized, which are the areas in which the fungi most easily reproduce.



Rinse with plenty of water.



Wipe a dry cloth over the surfaces.



Use an anti-glare product weekly.



Bidet:

Rinse the bidet to remove any debris.



Apply disinfectant solution and leave it on. Then rub with a clean cloth or mop.



Rinse with plenty of water.



Wipe a dry cloth over the surfaces.



Use an anti-glare product weekly.



It is recommended that the following process must be followed:

- **1st** Empty the bins.
- **2nd** Proceed to the sweeping of solid debris and the collection of these.
- **3rd** The urinals, toilets, sinks and bidets are sprayed with the product of choice. It is recommended that the disinfectant, should be left on for several minutes.
- **4th** Treat the bath or shower with anti-aging product and let it act.
- **5th** Proceed to cleaning the taps.
- **6th** Rinse the above with water and dry.
- **7th** Proceed to the mirrors cleaning.
- **8th** Do not forget that soap and paper dispensers and roll holders should also be cleaned.
- **9th** Replace toilet paper, hand paper and soap.
- **10th** Mopping the floor.

1.2 CLEANING TILES, MIRRORS AND OTHER MATERIALS

Bathroom tiles are usually made of tiles. Tile cleaning should begin at the highest areas of the bathroom to continue down to the lower areas. They should be sprayed with chlorinated detergent to remove any germs.

You can use a scrubber, if there is a lot of lime adherence, or a cloth. Then, wipe with a dry cloth to remove any leftover product.

The mirrors will be cleaned with a cleaning cloth and a glass product.

When cleaning **the bathroom furniture**, it is important to take into account the excess water because it may destroy furniture that absorb water.

The **cleaning of floors** is basically done with a sweep to remove dust, hair and debris, and mopping. The sweeping must be done before the toilets are cleaned, because if water falls on the floor it will be very difficult. The mopping will be done at the end of the bath cleaning and a disinfectant product similar to that used in toilets will be used, as long as the pavement material admits.

The **cleaning screens** involves a double problem: cleaning the frames and cleaning the glass or plastics. Crystal is usually a material from which it is difficult to remove limescale.

1.3 CONSUMABLE MATERIAL: IDENTIFICATION AND REPLACEMENT

There are a number of consumables in the WC that are cleaned by the cleaning staff. The most common are: **toilet paper, hand paper, and hand gel.**

Toilet paper has become an essential product. That is why we will have to check the amount of toilet paper in the bathrooms.

The most commonly used are the following:

Roll for industrial toilet paper	
Multiple roll holders	
Roller for pre-cut paper	
Toilet Roll holder	

Hand gel is very important for the hygiene of those who need it. You need to refill when it has been emptied. The most commonly used types are:

Liquid hand gel	
Foam Hand Gel	
Hydro alcoholic Hand Gel	

Specific products for cleaning a toilet

The following products are recommended for toilet cleaning:

Anti-glaze - It is a product designed **to remove lime scale easily and quickly**, it is indicated for showers, baths and screens.

Disinfectants - Used to remove any germs that may be present in the toilets. The most common is chlorine.

WC Cleaner - Has a de-icing component designed to remove embedded lime scale that builds up inside the toilets.

Windshield wipers - Used for cleaning mirrors located in toilets.

Ground cleaning: There are cleaning floors destined for the disinfection of different germs.

1.4 VERIFICATION TECHNIQUES OF THE WORK PERFORMED

The hygiene of the toilets is an important objective and it must be verified that it has been carried out correctly. Proper verification techniques will help to maintain optimum hygiene.

It can be performed in several ways:

- **Use of a record of actions:** As mentioned above, it is more common to record cleaning actions that have been performed, collecting data such as the person who performed it, time etc.
- **Visual verification:** Check for any traces of dirt, dust or lime, hair, fungi, etc. Black spots on the corners or joints of tiles indicate the presence of fungi caused by moisture, which must be removed.
- **Olfactory check:** The bad smell in the environment indicates that the disinfection was not performed correctly.

1.5 APPLICATION AND FOLLOW-UP MEASURES OF PREVENTION OF OCCUPATIONAL RISKS IN THE CLEANING OF FURNITURE

No additional measures exist in this type of cleaning. Please, refer to the follow-up measures of prevention of occupational risks in the cleaning of furniture mentioned in Unit 2.

UNIT 3 Cleaning of Pavements-Floors

Lesson 1 Classification of the pavements

We have to define and located the dirty, it is necessary to know the type of surface on which it is deposited, the characteristics of the work area, the type of floor, the furniture, and the equipment on the property. Finally, we have to evaluate the presence of people in the work area.

1.1 HARD FLOORS

Easy to clean, they are resistant pavements to scratches, durable and cold. One of the drawbacks is for the porosity, it's easier to dirt penetrates in the pores. To prevent this, they must be crystallized; in addition, we must be very careful when applying treatments with acidic products and alkaline salts.

General classification:

- Smooth or polished stone: granite, marble, terrazzo, etc.
- Porous: cooked clay, cement and asphalt.

Classification by composition:

- Natural stone: marble, granite, slate.
- Artificial stone: terraces, tiles, porcelains.
- Clays: brick, rustic stoneware, cooked clay.
- Polished clay: ceramics, glazed tiles.

The natural hard floors, as the marble are pleasing to the eye but uncomfortable to care for, the marble absorbs stains easily. Daily maintenance will be done only with a little neutral soap, which can be replaced with special liquid wax for shine.

We must always avoid abrasive products that leave the matte floor, as well as vinegar or lemon so that they eat their shine. When the marble becomes dark or yellowish, it may be due to too thick a layer of wax; one option is to soak a sponge or brush in water and vinegar.

Some tips to keep the marble in good condition are:

- Remove dust frequently.
- Clean surfaces with sponge and neutral detergent daily.
- Always dry the surface after cleaning with water.

- Avoid using vinegar and lemon too often. When done, simply clean the surface again. Avoid abrasive cleaners.

Natural hard floors, such as granite, are more resistant to shocks, scratches, infiltrations and heat, and are easy to clean. It depends on whether the granite is polished, in which case a damp cloth will suffice; if it is not polished, we can brush.

Natural stone floors such as slate and quartzite are common outdoors. The quartzite floors be cleaned periodically with soapy water and non-aggressive detergents. The slate ones will be brushed and the use of limestone will allow water with bleach.

The terrazzo is an artificial floor made of pieces of cement marble, the surface of which is polished. Cleaning is done with neutral soap and water. No household products, such as etching, bleach, ammonia or other detergents which are unknown if they contain the substances, may cause damage to the roofing components in the cement. Under no circumstances will acids be used.



Clay hard grounds such as cooked mud are obtained by mixing clay and water. Once the pavement has been treated, it is advisable to use it every time you rub a neutral detergent; it should also always be moisturized, and when black rubber stains appear, use a neutral detergent of pure ordinary maintenance and rub with a moistened green abrasive mop, then rinse or re-apply the liquid wax only to the part affected.

To remove old sludge treatments, use a concentrated concentrate and leave it on for about 15-20 minutes. Rub thoroughly with a mop or rotary machine. Treatment, adapting according to the new absorption of the recovered sludge.

In the event that the pavement has organic stains (oil, grease, drinks, meals, etc.):

- If the mud is treated. If any substance has penetrated slightly, use degreasing detergent. Leave on for a few minutes. Rinse with water.
- If the mud is untreated. For oil or grease stains, make a pure degreasing agent and leave it on for a few minutes on the affected tile, rinsing with plenty of water at the end.

On clayey hard grounds such as rustic stoneware, a cleansing with acidic descale, diluted according to the degree of dirt. Will be enough to remove dirt deposited over time to prevent new ones, it is recommended to apply two hands of the water-repellent waterproofing with a large brush, impregnating the joints well.

Polished hard loafers like as stoneware is the most common, widely used in places where constant cleaning is required, it is a material that absorbs little liquid. It has high resistance to chemicals and cleaning products, and also has very good abrasion resistance.

Porcelain stoneware its main feature is its ability to reproduce with great fidelity much more expensive natural materials such as stone or marble. It is a little porous surface. Special care must be taken when using abrasive products.

1.2 SOFT FLOORS

These types of grounds are light in weight, and are mostly composed of synthetic materials, but we emphasize natural ones, such as wooden floors and parquet floors. We must be very careful when cleaning and maintaining excess water, as well as when treating them with solvents and abrasives that damage them, we recommend that detergent solutions not exceed a PH of 9.

Some examples soft floors:

<p>Cork</p>	<p>It is a natural material that comes from the bark of the cork oak. These types of surfaces will use a cloth or scouring pad slightly moistened with water and neutral soap. Do not use vinegar, waxes or abrasive products containing any ammonia base.</p>	
<p>PVC</p>	<p>It is a recycling pavement made from the remains of PVC cables. No moisture, no noise, duels are very resistant to heavy traffic and wear. It also resists acids, bleaches and other pollution of the environment.</p>	
<p>Rubber</p>	<p>They are non-slip floors, noise reducing, shock absorbers, high wear resistance, and when they are not porous, dirt will always be shallow. Cleaning should be done with neutral soaps and daily dry soap.</p>	
<p>Linoleum</p>	<p>Their composition, regenerative raw materials of vegetable origin, such as cork, resin or flaxseed oil. Clean with non-aggressive products and the pH is not higher than 9, for a daily cleaning a neutral detergent will suffice.</p>	
<p>Parquet</p>	<p>Wooden floors:</p> <ul style="list-style-type: none"> - <u>The parquet flooring</u>: It consists of small boards that are directly glued to the floor by means of polyurethane glue. - <u>Floating parquet</u>: These are pieces of wood. They do not get stuck or nailed to the floor, but the face that is not trampled and down, rests on a neoprene membrane or layer, thus floating while acting as an insulator. 	

For all types of parquet flooring: wipe often with a cloth or dry cloth to remove dust and high-acid products or waxes or silicones are not added to the water. For fruit, milk, soft drinks, tea, wine or coffee stains, we will use a mild detergent. For those of chocolate, fat, or shoe polish, a solvent and for those markers of pen, pen, tip or lipstick, we will apply denatured alcohol.

In no case do not allow the stains to dry on the parquet floor.

3. TEXTILE FLOORS

Tile composite floors. They get dirty more easily due to their high porosity, they need to be wet as little as possible and if necessary, they need to be dried well for cleaning. Neutral products are recommended for cleaning.



Lesson 2 Criteria for the Use and Dosage of Machine Cleaning Products

Each class of flooring requires a specific cleaning product and technique depending on the type of treatment we want to apply, always trying to respect the ground properties and that the application of the product does not spoil.

- **Waxes:** Natural waxes of vegetable origin, animal, mineral and synthetic ones of industrial manufacture are found, these have the same properties as natural waxes and the results are usually better included. They are usually used for the treatment of wooden surfaces, cork and glazed ceramics [terracotta]. They are characterized by dirt and water-repellent repellents, diffusion capacity, antistaticity, satin finish, pasty consistency and easy treatment.

For the treatment of this type of wax, the type of pavement will be taken into account. In general:

- Hard wax will be applied for pavements with a cloth that does not contain cotton and in even uniform layers.
- For larger surfaces it is advisable to use a waxing machine.
- The wax will be applied by spreading with a spatula or heating it to about 60 ° C by distributing it on the pavement, then waxing evenly with a machine.

To conserve the flooring daily, if there is little dirt, they should be cleaned only with warm water, without any additives. No hot water or degreasing or abrasive cleaning products will be used.

- **Organic solvents.** Organic solvents are volatile organic compounds that are used alone or in combination with other agents to dissolve raw materials or waste materials, using them for cleaning, modifying viscosity, or as a surfactant. In general, organic solvents are commonly used in industries for degreasing, cleaning, etc.

Mixtures and emulsions. Emulsifiers make it possible for different substances to be mixed, oil-in-water or water-in-oil emulsions. The oil particles are reduced to a minimum so that they can be suspended in the aqueous system. To prevent the emulsions from chemically reacting, it is important not to place these products in extremely hot or cold places.

Ground treatment with products dissolved in water. These treatments are suitable for hard and synthetic floors, linoleum type surfaces, PVC ... They are not suitable for floors that do not support water such as wood, as this accelerates their deterioration.

Ground treatment with products dissolved in solvents. This type of treatment on wood floors covers the surface with a waterproof layer, protecting it from moisture and preventing the accumulation of dirt, thus facilitating its cleaning.

Ground treatments with combined products. It refers to treatments used in the spray method, the composition of which is water, wax and solvent. With this kind of treatment, in addition to removing dirt, layers of wax are also added to the floor, which also brightens.

Treatments for cork and wood floors: A solvent-based wax should be used for its treatment; It should be cleaned, if necessary, with a damp cloth or using solvent cleaners if the ground is to be prepared for new wax application.

Treatments with vitrifying product: These products are part of the group of polymers, these are products made of synthetic and solvent materials, and some have several groups of oils so that the product penetrates the ground. In principle, the solvents evaporate, which causes the synthetic material to harden and form a coating on the surface.

Environmental Implications. Good Environmental Practices

Especially toxic substances that generate hazardous waste are often used in the cleaning area, which is why it is very important to avoid the negative environmental impacts that can be generated on the workplace.

We need to plan our work well and, to the best of our ability, replace those toxic substances with other types of action.

When applying or transferring products, we must use the minimum quantity recommended by the manufacturer. It is very common for cleaning workers to use a bit more with the misconception that the larger the product, the better the result; In addition, chemical waste should not be dumped into the sewage system, but we will use the sites established for this.

To reduce the environmental impact considerably, there are cleaning methods that, for example, reduce the amount of water and chemicals needed Savings: pressure water machines, sweepers...

To protect the environment, it is essential that both companies and workers are actively involved in environmental management in our workplaces, applying good environmental practices. Continuous improvement in processes and techniques that promote harmony with the environment will help to improve the image of the company, its competitiveness, and create quality jobs.

UNIT 4 Glass Cleaning in Buildings and premises

Lesson 1 Glass Cleaning in Buildings and Premises



1.1 GLASS CLEANING TECHNIQUES

The last years, glass is being used on many occasions as a replacement for exterior walls. A building, whether it is a house or an office, is very bright, thanks to the large number of windows it has, it saves a lot of energy by using natural light.

Also consider the high level of well-being that people enjoy being in a well-lit place where artificial light should not be used.

Cleaning the glazed surfaces sometimes involves working at height. In addition to this fact, it is necessary to have specific knowledge of equipment. and how to carry out it with respect to security measures, which will be necessary to avoid the risks inherent in this type of work.

1.2 TYPES OF GLAZED SURFACES: COMPOSITION AND CHARACTERISTICS

In our daily lives we use the terms "glass and crystal" indifferently. In fact, there are a huge number of differences that we will go into.

- **Glass:** A mixture of silica, sodium carbonate and limestone is used. It is a colourless and transparent glass. Lead glass features are gloss density and are commonly used in optics and art items. Glass is used for a variety of purposes, so the elements, quantities and processes of manufacture will vary depending on the intended use.
- **Crystal:** Lead oxide is added to the above mixture.

The glass used for the closures or decoration of buildings and premises, and which will form the set of elements that must be attended by the cleaning staff, has different characteristics depending on the type that corresponds.

The use traditionally given to glass has been to protect buildings from inclement weather, but without losing the natural light of the outside.

The main functions of glass are:

- Protection of the property, people and objects inside it
- Noise control
- Control of solar radiation
- Aesthetic function

1.3 PREPARATION AND MAINTENANCE OF ORDER IN THE WORKPLACE.

When we clean the windows of a room, the removal of the furniture nearby is important as it will limit the space and hinder our chances of moving during the cleaning.

On the other hand, it should be borne in mind that order in the workplace also obeys the objective of reducing the risk of accidents.

Three simple steps that will help us in maintaining order in the workplace:

1st Bring the cleaning products and accessories closer to the room where the glass we are cleaning is located, in an area away from the passage to prevent any collisions that could cause spills of products.

These cleaning products and utensils should have been previously stored in a designated space. If we keep the items and products ordered in the place that they are stored, it will be easier to locate them and identify which ones are close to being finished.



2nd The furniture and any objects that may be an obstacle for cleaning must be removed. Condition, avoiding the risk of stains of cleaning products.

Removed furniture should be kept away from driveways to ensure the safety of both cleaning staff and others. Once the cleaning is completed, you should return the furniture back to their position.



3rd After the two previous steps have been taken, we can begin the clean-up task that we have planned.



Lesson 2 Cleaning of Windows in Exterior and Interior Spaces

Cleaning glazed surfaces sometimes involves working at a height. For this reason, it is necessary to have specific knowledge about tools and products, and how to carry them in a safe manner in order to avoid the risks inherent in this type of work.

This chapter will study the types of glazed surfaces, the cleaning of glass, both indoors and outdoors, and the maintenance of order in the workspace.

2.1 CLEANING OF INTERIOR GLASS



We are referring to the glass inside the buildings and premises, whether on the windows or on any other glass surface.

As for the frequency of cleaning, it is recommended that you check every day for any stains, fingerprints and dust that may have deposited on the frames, reserving thorough cleaning once a month.

One difficulty we can encounter is the furniture that can be located in front of the windows and that will have to be removed to carry out a proper cleaning. Another disadvantage may be the presence of blinds in the workspace, which will require studying the most convenient times for cleaning these items.

Finally, another aspect to keep in mind is the need for height work. Although the layout of the glass is interior, in many cases the large size of the windows implies the need to access very high areas, for which we will need the use of stairs.

2.2 CLEANING OF EXTERIOR GLASS

Exterior glass cleaning has a number of features that set it apart from the rest. The type of dirt is different. In most cases it is dust, sand, bird droppings, pollution waste, etc.

When the windows are located in high areas, support elements will be needed to allow access to the area.

The following are the most commonly used techniques for height cleaning:

<p>Telescopic Pole Cleaning</p> <p>It is made, using a stick system that incorporates a brush at the end with which the surface can be rubbed.</p>	
<p>Climbing Cleaning</p> <p>This technique is suitable for cleaning inaccessible areas. As an essential feature, we can say that the staff performing it must be highly trained and trained in climbing techniques. The necessary material for this are harnesses, ropes, carabiners, etc.</p>	
<p>Hanging Scaffolding</p> <p>High-rise buildings, on the highest level, have handles to hold scaffolding and lower them for cleaning glazed surfaces.</p>	
<p>Lifting Platforms</p> <p>The cranes are a good option when we need to get up to get to the point where we need to be cleaned, and we also have enough space in which to place the vehicle that houses the crane.</p>	

In order to propose a regularity for the cleaning of exterior glass, the following variables will be taken into account:

- Difficulties in accessing glazed areas, either because of their height or because they are located in areas where it is difficult to reach.
- The climate in the area, as the dirt on the windows will not be the same in a place where it is very rainy, or very dry.
- The presence of workers in the vicinity of the house.
- The proximity of a road with heavy traffic
- The location of the building in rural or urban area.



2.3 CLEANING OF ITEMS THAT ACCOMPANY THE WINDOWS

Windows can be composed of a number of elements, the cleaning of which depends on the general condition of the whole. We are talking about frames, blinds, grilles and sills.

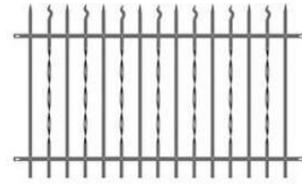
It is imperative to know the order to be followed when cleaning this set of items, since this will affect the result.

The following sequence is proposed:

- | |
|--|
| 1. The grates will be cleaned |
| 2. Continue with the blinds |
| 3. The frames will be the next to be cleaned |
| 4. The sill goes next |
| 5. It will be finished with the glass |

I. GRATES:

The cleaning of the grates will be done with a wet cloth, as they are located outside the building and accumulate a large amount of dust and debris.



II. BLINDS:

The blinds have the greatest difficulty in the outer areas and in the grooves that are between sheet and sheet. The slots can be cleaned with a brush or vacuum cleaner. Machines that generate steam often also produce very good results.

Since dust is often deposited on the blinds, which are then difficult to remove, weekly cleaning is recommended.

Extreme precautions must be taken when cleaning the exterior. In no case will we do it by removing the body from the window, at the risk of falls.

Both PVC and aluminium will be cleaned with a neutral detergent and a soft cloth.



III. FRAMES:

Window frames can be made of different materials.

Depending on the material, one type or another of product and cleaning tool will be chosen.

- **Wooden frames:** it is recommended to use a product with a neutral pH, always using a cloth that has absorbency, since the wood does not tolerate excess water well.



- **PVC frames:** Neutral products can be used, avoiding alcohol-containing products, as they can cause the frame to fade.



- **Aluminium frames** are highly resistant to climate change and chemicals. For cleaning, a damp cloth with any non-abrasive or acid-free product may be used.



- **Lacquered aluminium frames** they are very resistant to climate change, but cannot be cleaned with any product. They do not tolerate alkaline products, scorers and scrapers as they are usually scratched easily.



IV. GLASSES:

Window glass cleaning can be done:

- **With a wet cloth,** Wet cloth is usually used when there is a lot of dirt on the glass. A polyester or viscose wipe will be chosen as they have a certain drying power and a soapy solution will be added.
- **With a dry cloth.** The dry cloth will be used when the amount of dirt is less. The accompanying product will be a common glass cleaner.



Lesson 3 Use of Basic Equipment for Cleaning Glazed Surfaces

In all professions it is essential that all the tools available on the market are known and that they can facilitate the work of each of the professionals who are engaged in this profession.

3. 1 TOOLS, MACHINES AND TOOLS OF THE STAINED GLASS

Definition of "**tools**": Object or device, usually artificial, used to facilitate work by expanding the natural capabilities of the human body.

Definition of "**machine**": a device composed of several interrelated parts but with separate functions, which are used in the execution of a task.

1. Types of Utensils

In addition to applying the proper cleaning techniques, it is imperative to select the appropriate utensils, chemical and machines, as they must be the most suitable for the type of dirt in question and consider whether their surface it is indoors or outdoors.

The criteria to be applied for choosing glass-cleaning utensils are the following:

- They are moisture resistant as they are always used with cleaning products and / or water.
- Tools and equipment should be ergonomic and lightweight, depending on whether the task is more or less arduous.
- Durability is also a criterion to take care of.
- It is essential that they are approved, thus having anti-fall systems, especially for work at height.

2. Tools

The wetter is intended as a manual cleaning system. It supports telescopic pole.

The wets are made up of two parts: the support made of different materials, and the wet, the material of which is made of textile.



We can find supports made from the following materials:

- Smooth aluminium and PVC handle. It is indicated for the cleaning of windows located outside.

- Aluminium and rubber coated steel handle. Suitable for outdoor cleaning.
- Made of PVC and with space for water storage. Suitable for indoors, as the water reservoir limits the fall of excess water.

With regard to the textile part of the wetting pads, we can find them made from the following materials:

- Cotton fabric. Recommended when high wet power is needed.
- Cotton fabric and abrasive band. It is used on glazed surfaces where dirt is adhered to.
- Microfiber fabric. Recommended for high durability.

Window cleaning Brush: It is the essential tool that accompanies the wetter, as it is used to collect the excess water that is left on the glass. It consists of several parts: the handle, the wand and the rubber lip.



There are different types of handles, among which we can find the following:

- Aluminium handle. It is indicated for its low weight.
- Fibber handle. It is very light and resistant.
- Rubber-coated handle. It facilitates the grip by preventing it from slipping by the hand.

It is designed so that an extension rod can be inserted in it and that they can be used in higher areas.

The rod is an elongated piece of stainless steel with a guide on which the rubber lip is inserted.



The lips are the part that will come in contact with the glazed surface and will help drag the water to the bottom. The most used material for its manufacture is rubber.



Aluminium Telescopic Tube: Telescopic tubes are designed for cleaning glass in elevated areas. Using these tools avoids the use of scales that may pose a risk to the physical integrity of workers.

They are usually made of aluminium to reduce weight and maintain strength.

They are made up of vain pieces, depending on how extensible they are, which are unscrewed to facilitate their extension. They can range from 2.5 to 10 meters.



Tweezers: The aluminium tweezers are finally attached to the telescope tubes and are designed to hold, with two parts of the clamp, a brush or sponge that facilitates the cleaning of the glass.



Scraper: The scraper is made up of a support and a blade.

Scrapers are used when the crystals have dirt very attached to the surface. When used properly, the sheets do not scratch the glass surface.



The bucket: The use of a bucket adapted to the utensils used to clean glass surfaces, facilitates the transport of tools, such as wetting machines and strips, as well as the possibility of having water available for cleaning if need.



3. Machines

Machines are tools that require an electrical connection for operation. The advantage that they have over the use of tools is their great effectiveness. On the contrary, machines have a high cost in relation to tools.

The machines with treat water system are composed of several parts. They are as follows:

Glass cleaning machine

This machine consists of two essential elements: the sprayer the cleaner-vacuum cleaner. The sprayer is used to moisten the glass with detergent. As the bearing incorporates into the end, it can be passed through the surface to extend the product and remove any adhered dirt. Then, with the vacuum cleaner, all product residues will be removed through the aspirate.



System for cleaning glass

This apparatus has three main components: the carbon telescopic rod, the belt, which, and the terminal.

The water, previously demineralized, dissolves the adhered dirt which then removes the microfiber terminal. This avoids the staining of frames and windows, as it facilitates drying without splashing water.

It is suitable for cleaning interior glass.



3.2 CONSERVATION AND STORAGE OF THESE

It is very important to keep in mind that companies make a lot of financial effort in acquiring useful tools and proper machinery that reduce the effort of our work to get good results.

Due to all this, it is necessary to pay close attention to conservation, since it affects their duration. If our cleaning utensils are not in optimum condition, the results will never be as expected.

All items used for cleaning have a number of manufacturer's recommendations on precautions to be taken to extend the life of tools and machinery.

Here are some tips on how to take care of our tools:

Window Cleaning Brush - It must be rinsed constantly to remove any sand or dust that is trapped on the lip.

It is advisable to disassemble and clean its parts separately or use the spare parts in the event of any damaged parts. Once it is clean, and if it is not being reused, it should be dried with a cloth to remove all moisture.

Do not use acidic products as they may damage the glass cleaner and even some of the windowsills.

The Wet: It must be rinsed constantly when in use to prevent dirt from getting into the fabric and then more difficult to remove.

When finished use, it must be disassembled by removing the support from the textile part, to clean it with a suitable detergent, then tending it to dry.

The Scraper: When used, it should be cleaned thoroughly, removing any debris that may be left between the joints. Before storing it is imperative to dry well, as the screws that allow the metal sheet to change can rust.

They should be used on completely smooth surfaces. Otherwise, we might scratch them.

From time to time, when we notice that the scraper is no longer effective, a metal sheet replacement must be used.

The Telescopic Pole: Remember that most of them are made of aluminium to prevent their weight being too high. It is important to prevent them from being deformed, avoiding bumps or excessive tightening of the different parts.

When finished use, it should dry thoroughly. The telescopic poles are hollow cylinders inside, so it is very normal for the water used to clean glass to be deposited. For this reason, they should be stored upright to facilitate removal of this water and thus prevent damage to the utensil.

Glazed Surface Cleaning Machines: In addition to the instructions each manufacturer makes about maintaining machines, there are a number of general recommendations for machines that need electricity to run. Among them we find the following:

Check power cords before and after each use to avoid crushes.

Machinery Exteriors - It should be cleaned every time it is used.

Water Tank Check - Before use, you need to check that the tank is full as the engine may be damaged if it is running low on water.

Batteries - Battery-powered machinery to be checked to prevent discharge at the time of use.

3.3 UTILIZATION OF TOOLS AND WORK TOOLS: CRITERIA TO BE FOLLOWED

For effective cleaning the steps will be followed: All the tools and accessories needed for cleaning are prepared, taking into account whether the glass is outside or inside and the height is in, and they will all be close to the work area, but not on the tracks step to avoid stumble.

As a summary we would need:

1. The bucket
 2. Wet
 3. Window cleaner
 4. Cleaning product
 5. Telescopic tube (if they are located at height)
 6. Cloth
 7. Scavengers.
- The glass bucket must be filled with water. An appropriate detergent for the dirt we want to remove will be added.
 - The telescopic tube will be inserted in the wet if necessary.
 - The wetter will be introduced into the mixture until completely wet, then drain by pressing with your hands, from one end to the other.
 - The wetter approaches the glass, starting at the top, at the bottom, drawing an "S" so that there is no wet
 - Next, it's time to choose whether to use the windshield wiper or glass wiper:

1. If the scraper is used, it will support areas where the dirt is stuck and difficult to remove without the use of this material. Scratches with the frames should be avoided as they may scratch. The glass cleaner will then be used.
2. If you use the windshield wiper, as with the mop, start using from the top to the bottom, also drawing an "S", without lifting it from the surface. All the waste water will be collected from top to bottom, in case of excess water, the glass cleaner will be shaken to continue effectively.
 - In the case where the telescopic tube is needed, the articulated handle will be needed, which will facilitate the possibility of performing the mentioned movement, thus improving the results.
 - Once finished, there will be water residues on the frames and sills that will have to be collected with an absorbent cleaning cloth.

3.4 USE OF SPECIFIC CLEANING PRODUCTS

There are a large number of specific cleaning products for glass surfaces.

One of the biggest complications in cleaning glass is the calcareous debris produced by the water.

The water has lime and minerals that stay on the surfaces once the liquid has evaporated.

Anti-aging products can help in the removal of such debris.

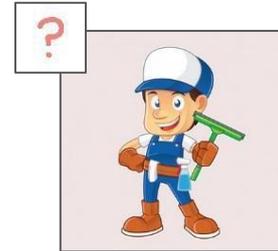
The application of these products must be through baits or chamois, using the less aggressive white or blue mops, to cause friction on the glass. The scratches glass are also very practical.

When we are faced with the need to use a cleaning product, there are many options offered by the market.

CLASSIFICATION

The following criteria must be considered:

- What will be cleaned?
- What material will be used?
- What kind of dirt is going to be treated?
- The price.
- The degree of danger of its use.



Cleaning products can be classified according to different criteria:

- According to the pH.
- According to the cleaning characteristics.

1. Classification according to the pH:

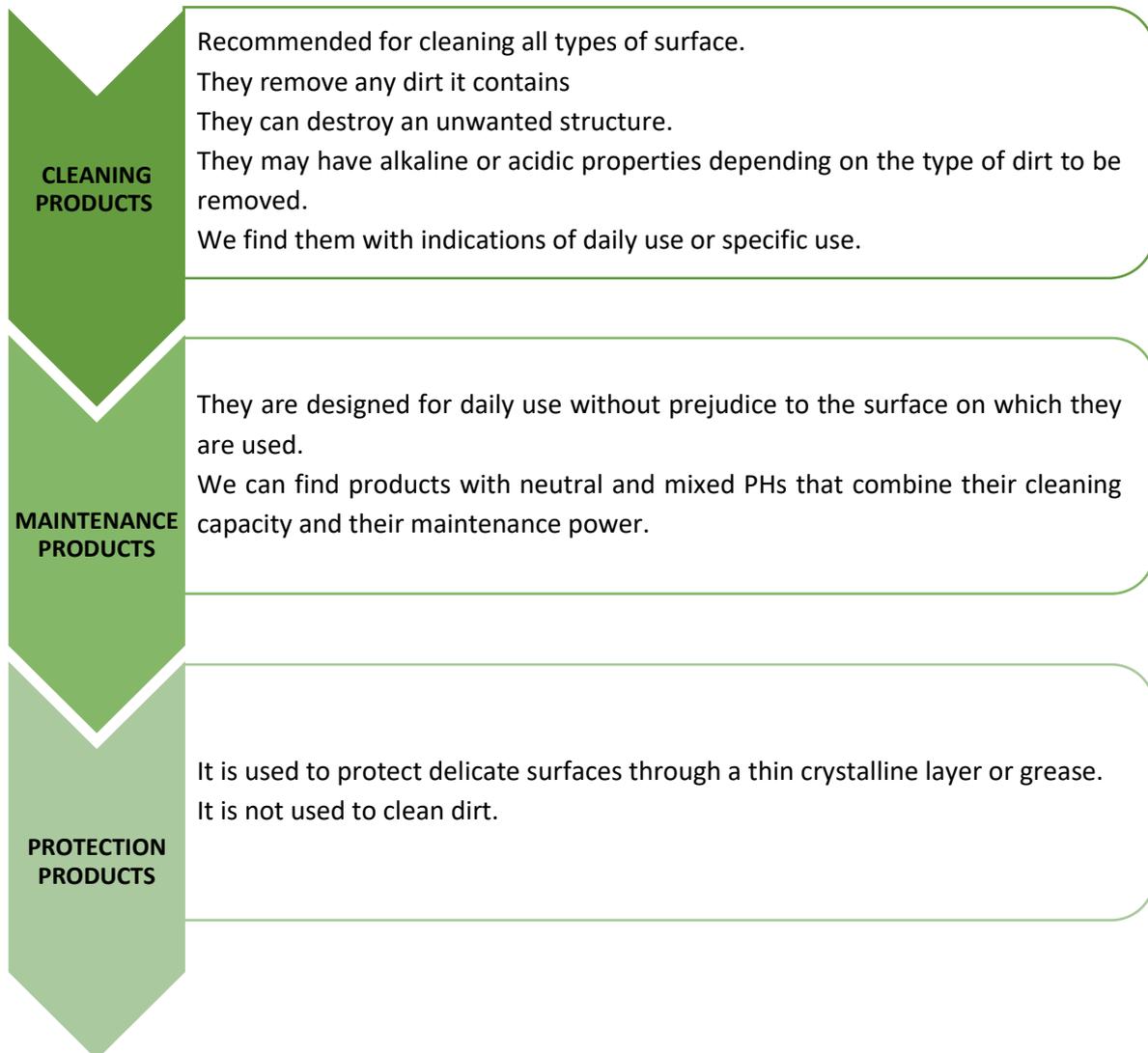
Knowing the pH of the products used is necessary when cleaning, as it will determine which materials can be used and which are not recommended for use.

Acid products

The following is a table that relates the pH in the products produced and their use.

Acidity	Product	Indications
VERY ACID (0-3)	Detergents, cleaning of the first occupation or refurbishment of the cement.	It is not recommended for use on aluminium, marble or enamelled surfaces.
WEAK ACIDITY (3-6)	Seeks to provide disinfection and cleansing	Use on non-delicate surfaces.
LIGHT BASIC (9-12)	All-purpose detergents for deep cleaning.	All surfaces.
BASICS (12-14)	Alkaline detergents used on facades to separate grease particles.	They are in some ways detrimental to the support produced by petroleum products such as rubber and rubber.
NEUTROS (6-9)	Conservation and protection tasks including the range of shampoos.	Carpets.

2. Classification according to the characteristics of the cleaning:



Lesson 4 Measures Related to The Health and Safety of Workers

4.1 IDENTIFICATION OF THE RISKS RELATED TO THE CLEANING OF GLASS

The risks involved in cleaning the glass can be caused by any of the tools or equipment that are commonly used. The glass that you want to clean conceals a number of risks that we are not aware of. A glass that is in poor condition may break as they are being cleaned. Pre-cleaning check-up is recommended to avoid such situations.

RISKS RELATING TO TOOLS, MACHINES OR TOOLS	
The telescopic pole	It may cause other people to strike. It is very important to hold it firmly and place it on the floor when it is not being used, outside the passage area to avoid any problems.
The wet and windscreen wiper	The main problem they may have is the fall from a height. When cleaning on a platform or scaffold, use a device that holds the wet or glass cleaner using a safety hook.
The scraper	Risks associated with the use of the scraper are cuts and falls. To avoid the latter, it is necessary to use the safety hook, holding it to the telescopic pole. For the former, scrapers usually come with a leaf guard that makes it easy to secure.
The scaffolding	Falling during assembly and disassembly is one of the risks. The operator must make use of the protective elements. The helmet, and the harness and fastener are a must.
Use of uneven lifting machines	Is necessary use of safety elements to prevent falls from a height.

Use of hanging scaffolding	Accidents usually occur due to improper assembly or misuse of lifelines.
Use of Risks scales	Are derived from the state of the scale and the place where it is located. It must be stable. Slipping due to the use of water is also very common.
Machines that use water vapour	The main risk is the high temperature at which the steam leaves, which can cause burns. On the other hand, the greater weight of this type of machinery also poses a risk of damage at the muscular level.

4.2 RISKS RELATED TO THE WORKPLACE

1. Occurred by the work center facilities

The risks related to the workplace facilities come from the characteristics of the workplace, that is, the risks would depend on the way it is built, the resistance, the distribution, etc.

The facilities of the work centers will be different depending on the activity performed there. This must be taken into account when cleaning glass. You need to know how the layout of the facilities affects the security of the cleaning staff, so we recommend a first assessment of the space where the task will be performed. If any area of greater danger is detected, the responsible persons must be notified.

- With regard to floors, walkways and stairs, they must be stable without irregularities and with non-slip treatment. It is important to exercise caution in the case of wet or waxed surfaces.
- Areas where obstacles are present increase the risk of falls. The stairs are also an area of greatest risk of accidents.
- Windows: The windows must be prepared to prevent the leaves from opening when they open, to disrupt the staff. On the other hand, you need to pay close attention to the process of cleaning them, as it can lead to falls.
- Electrical installations can cause very serious accidents. The risk increases when we are in damp conditions.
- Temperature differences also affect the well-being of workers.

2. Occurred by working conditions

Working conditions also pose a risk to people's health. Night hours, overtime, or very fast working hours should also be considered, as they can lead to stress and mental and physical fatigue.

4.3 USE OF PERSONAL PROTECTIVE EQUIPMENT

As established in article 2 of Royal Decree 773/1997, of May 30, it is stated that the personal protective equipment (EPIS) are: "any equipment intended to be carried or held by the worker to protect him from one or more risks that may threaten your safety or health, as well as any accessory or accessory intended for this purpose.

For cleaning glass at level and height will consist of:

Head protectors		Safety helmets if required by the workplace. Head protection (hats, caps, hats, etc., knitwear, coated fabric, etc.) for all tasks performed and outdoors on sunny days.
Ear Protectors		They can be of various types and must be used by workers in the sector performing tasks in areas with high levels of noise.
Eye and face protectors		Glasses and screens to be used in activities with risk of particle projection.
Protective of the respiratory tract		The appropriate type should be chosen depending on whether they are to be used when working with chemicals or to protect against dusty areas.
Hand and arm protectors		In most activities in this sector it is necessary to wear protective gloves and cuts, and in some cases against chemicals.

<p>Safety or protective footwear</p>		<p>With non-slip sole when working in wet areas and with reinforced toe cap if there is a risk of falling objects that can cause I 'crush on the foot.</p>
<p>Skin protectors</p>		<p>Protective creams and creams that will be used when performing outdoor tasks on sunny days.</p>
<p>Total body protectors</p>		<p>Signalling clothing (bracelets, gloves) (reflective and fluorescent) will be used to enhance visualization when there is a risk of being tripped.</p>
<p>Fall arrest belt</p>		<p>Height fall protection equipment and harnesses: to keep the worker in touch during cleaning tasks.</p>

4.4 APPLICATION OF SPECIFIC SAFETY MEASURES FOR VERTICAL WORK

Working at height is one of the most dangerous occupational activities. The damage that the human body suffers after a free fall is usually very severe, even leading to death.



The causes of falls from a height can be:

1. Wrong actions

- The staff does not have the necessary knowledge to carry out work at height without risks.
- The staff does not have the physical capabilities required for this type of work.
- Staff do not consider necessary the measures to be taken with regard to the prevention of occupational risks at work at height.

2. Working conditions

- Unsafe work surfaces.
- Adverse weather conditions: rain, snowy wind, etc.
- Inadequate or poor working equipment or lack thereof.

3. Others

- Presence of electrical energy.
- Insufficient lighting.
- Small workspaces.
- Sharp or sharp edges.

Safety measures aimed at preventing low height work accidents relate to the use of personal fall arrest systems. These systems are composed of the harness, the rope and the lifeline.

The use of stairs

Stairs can often be very useful for cleaning glass as a means to reach the highest areas.

The main danger involved in working at height is the risk of falls at different levels, this being the main cause of serious and fatal accidents in cleaning activities.



The following preventive measures are proposed:

- Avoid using hoisting gear whenever possible. Attempts will be made to work from the ground with tools with a sufficiently long handle.
- In the event that the above is not possible, the lifting elements with the largest possible supporting surface will be used, limiting the use of scissor ladders to short-term tasks.
- Never use unstable items such as chairs, boxes, tables...
- Lifting elements should not be used if we suffer from any illness or are taking medication that may cause dizziness or loss of balance.
- In the event that the use of ladders is essential, extreme caution must be exercised to prevent slipping due to poor support. It is also contraindicated that the ladder rests with another element to gain height. The ladder, if supported on a wall, must be sloped sufficiently to prevent falling once we are on it.
- The ladder should not be used by more than one person at a time and it is not recommended to climb or lower it carrying any kind of load that jeopardizes worker safety.
- When the scale to be used is scissor type, it should be fully opened.
- For two-way ladders, fastening straps and non-slip shoes should be in perfect condition.
- If you are working over a height of more than three meters, wear a seat belt.

The use of scaffolding

To prevent work-related accidents involving scaffolding, the following recommendations will be followed:

- The surface on which the scaffolding is installed must be level and level. Regulatory legs must be used to compensate for uneven villages.
- The base from which the work is to be performed must have a double railing and a base.
- If the scaffolding is too high, it must be secured to a stable surface.
- To be on a scaffold it is mandatory to use the fall belt, with its corresponding lifeline.



The use of lifts

Basket-type lifts are often used when cleaning glass. Its use is very comfortable and simple, increasing the productivity of the worker, but, in return, its use involves the use of a series of means to avoid accidents.

The following safety tips are offered:

- You must verify the status of the equipment by raising and lowering it before climbing.
- The load must be distributed over the basket, respecting the maximum weights.
- The raising and lowering of the basket must be done with the platform fully stopped.
- It should not be used in adverse weather conditions such as strong wind, rain, etc.
- Personal protective equipment must be used.



4.5 KNOW AND APPLY SECURITY MEASURES IN THE PRESENCE OF PEOPLE IN THE WORK ENVIRONMENT

The presence of people in the work environment is a matter to consider, even more so if the work being done is high. Tasks should be organized based on staff work schedules, responding appropriately to prevent accidents.

Some of these measures are:

- **When using ladders or lift systems**, space should be delimited to prevent people from coming in.
- Work **should be signalled** with beacon tapes.
- If **work is done outside, traffic must be cut off**. This must be reported to the appropriate authorities and requested timely permission.
- **Tools used at height must be insured** against possible falls, just like chemicals, thus avoiding the risk of accidents for passers-by.

UNIT 5 Cleaning Techniques & Procedures with the Use of Machinery

Lesson 1 Cleaning with Machines: Classification, Maintenance Components

The operator must know the mechanical and electrical components of the different machinery, in order for it to be used in accordance with the most appropriate rules of operation for the machinery to function properly and its service life not to be shortened due to the ignorance of its components.

It is very important that the instruction manual is always available to make proper use of the machinery, read this manual carefully and check that all its components are in accordance with the instructions given, and in the event that it is observed any anomaly act according to the established protocol and alert the personnel in charge of its maintenance.

1.1 TYPOLOGY AND COMPONENTS OF MACHINERY

Electrical components, mechanical components, other components

Sweepers:

They are machines designed to sweep solids on medium surfaces ranging from 600 to 2,000 square meters, depending on the size of the sweeper. These machines allow cleaning on exterior surfaces such as car parks or patios, are also designed for indoor use and carpet cleaning. They provide a saving of time and work since, in such a large size, the operators would have to devote much more time and effort. Sweepers are available with DC motors with batteries and petrol engines.

For large, carpeted surfaces it is excellent, provided that the main brushes are soft.

People who have been trained in the operation and who have been expressly responsible for it should only use the appliance.



Sinks:

They are composed of a washing machine and a vacuum cleaner of dust and water. This type of machine allows very high yields and is specially designed for cleaning corridors, entrance hall, warehouses.

They have a water tank, where the operator introduces the detergent that is dosed alone.



The brushes release the dirt, a rubber lip on the back drags the water and is sucked out and deposited through a filter.

This type of machine runs on charged batteries and is used for stone, tile, cement, marble, rubber, vinyl, sealed wood etc.

Sweepers can be man-on-foot, with the operator dragging the machine (which is driven by a sensor at the rudder). These types of sweepers are used in narrower areas with less manoeuvrability such as a parking lot.



The on-board sweeper is more bulky, and the operator drives the machine, launching it through a keystroke start, has a brake pedal and acceleration, and steering it with a steering wheel, which facilitates its manoeuvre.



Each machine will need materials and products specifically designed for them, so it is essential to know these specifications depending on the tasks to be performed and the proper choice depends on the result.

We need to consider a number of factors:

- The place where the machine is intended to be used (indoor or outdoor).
- The work to be performed.
- The nature of the surface to be cleaned.

These recommendations can be applied to any type of machine, as they must be used correctly, for which we must always have the corresponding manuals.

- If detergent is added to the tank first and then the water, there may be a lot of foam.
- There are models with metering devices.

Rotary:

They are indispensable machines in the cleaning and maintenance of floors. They are used for scouring, waxing, polishing, pickling and crystallizing floors.

The rotary presses almost all types of work on the pavements, so the pad or rotary disc will be available depending on the utility.

They are used for professional cleaning on both wet and dry floors, as well as their repair. They perform their action on the ground with a swivel drive driven by a motor that is positioned as a trailer.



Depending on the technique of maintenance or cleaning that we will perform we will have a different pad or disk.

The most common accessories of the rotary presses are:

Brushes: The type depends on the job you want to do with them.



Corrosive disks: made of synthetic or metal fibbers, are indispensable allies in mechanized cleaning of floors. They can be of different hardness and size, to distinguish them, they are made in different colours. In addition to the colour and composition, they also differ in diameter, which depends on the size of the machine.



The person using the machine will be able to guide it with a simple movement of the handle up or down.

The displacement, always during the work, will always be backwards, in the direction of the outlet.

After use, it is important to clean all the items, and then clean it, it is also very important to dry them especially in the area where the discs or brushes are attached, otherwise they are in danger of being rusted.

Once the plate is in motion and applying the product directly to the surface, lifting the rudder to the position of use, the plate will be mounted on the disc that we will use, which we have previously placed on the floor thus beginning the work. This method will prevent us from over-booting the machine.

We must not forget that during the use of the rotary press the contact cable will have to go over our shoulder and behind us, thus we will avoid that the cable is coiled in the machine and it is crossed.

Vacuum Cleaners:

They are an essential element in the cleaning staff's daily routine, they remove dust on all types of surfaces and the cleaning is more thorough and hygienic, since the dust is not transported as it is with manual scanning, it is absorbed.



Water and Dust Vacuums:

For aspiration of dust and small debris, water in the process of rinsing and spillage of liquids or floods due to rain or other causes. The main feature of this type of machines is that they have great power of aspiration in both dust and liquids.

In the case of water absorption, it has a collection tank with tilting supports.

When we adapt the machine for dust absorption, a container bag is fitted inside the fitted tank to the suction nozzle.



Backpack Vacuum Cleaners:

This type of vacuum cleaner is used in inaccessible places, aircraft, armchairs, curtains. They are usually quiet and are equipped with an ergonomic frame that protects the user's shoulder and lumbar area; the operator has a free hand that facilitates him to perform additional tasks such as garbage collection. They are easy-to-use machines and their weight does not exceed four kilograms. The air is expelled in the opposite direction to the operator.



High-Pressure Cleaners:

Designed for terrace cleaning, gutter cleaning and many professional applications. The removal of society depends largely on the proximity of the nozzle to the surface: the more pressure is exerted; the more embedded dirt will be eliminated.

This type of cleaning machine does not need a lot of water as it multiplies the pressure by twenty.

Hot water hydrofoils are larger, heavier and require more care, but their cleaning power is also much higher, due to the ease of hot water dissolving fats, oils and other types of substances.



Injection-Extraction Machine:

This type of machine is ideal for cleaning floor or textile linings. This system has the ability to remove a lot of dirt, although the drying time is longer. What this type of machine does is, at the same time, spray a chemical solution on the area to be treated, causing the product to lift dirt, which is immediately rinsed through a hot water injector and aspirated.



Steam Vacuum Cleaners:

Steam vacuums combine the benefits of dry vacuuming with steam cleaning, can collect small solid debris from the floor, clean it with steam and finally dry it.

It is possible to vacuum dry and steam using the same filter. With hot steam great cleaning and hygiene power is achieved.



Steam Cleaners:

Designed for removal the dirt, they do not take up much space. This type of cleaning machine does not require the use of chemicals, which means an improvement in cleaning; it is used, in addition to hard floor scouring, for cleaning kitchens, bathrooms, windows, always using the accessories recommended by the manufacturer for each use.





When using this type of machine, we must take into account a number of general recommendations:

- Before working on a surface read the manufacturer's instructions AND run a test at a hidden spot or sample.
- Allow the steam-treated surface to dry to check for variations in colour or shape.
- Fill the tank with clean water.
- Prepare the detergent solution.
- Fill the detergent tank, mount accessories and select how to run. For delicate wood or delicate surfaces, proceed carefully as too much steam treatment could damage the surface's waxing, gloss or colour.
- When cleaning stainless steel, we should avoid using abrasive brushes.

1.2 MACHINERY MAINTENANCE TECHNIQUES

For optimal cleaning it is very important to keep the machinery in perfect condition, we will always follow the manufacturer's recommendations.

Lesson 2 Use of Cleaning Products: Identification, Properties and Storage

2.1 MAINTENANCE, INTERPRETATION OF PREVENTIVE AND CORRECTIVE MAINTENANCE PLANS

Preventive maintenance aims to keep the equipment and facilities in optimal working condition, ensuring their performance and performance throughout their useful life and, consequently, reducing possible breakdowns and failures caused by their poor condition to consider preventive maintenance corrective maintenance, that is, those actions that are performed when the fault has already occurred.

To prevent or reduce the risk of possible malfunctions and malfunctions in the cleaning machinery, procedures should be established that periodically examine the hazardous conditions that the equipment may present, operation, and context of the locking area, etc. These systems help us to respond to failures or emergency situations.

Daily or prolonged use of machines causes them to wear out and their devices altered, so it is essential to include in your work routines a maintenance program according to each particular equipment.

To properly develop and apply these procedures, the following must be considered:

- An analysis of plans, defining the frequency, coverage and route of the review.
- Have the largest information on the technical characteristics of the equipment.
- Draw up an inventory of items that the machine carries.
- Prepare checklists, which are most often provided by the same manufacturers.

A. Man-Sweeper on Board

Preventive and corrective measures:

- Machines must be CE marked.
- The tool must be kept in good working order and clean.
- Before starting the task, it is advisable to check the gas and oil levels of the engine, air filter, etc.
- Always use the fuel recommended by the manufacturer.
- The operator responsible for handling them must have at their disposal the safety instruction manual provided by the manufacturer.



- The vacuum cleaner will only be used for these purposes, it will not have to be forced into other works for which it is not designed.
- Periodically it will be inspected to avoid possible defects in the vacuum cleaner, which can lead to risks, in the event of a breakdown it will have been repaired in specialized centers.
- The operator responsible for managing the vacuum cleaner will need to know how to handle it.
- Before any inspection, breakdown or simply during maintenance operations, the motor of the vacuum cleaner must be stopped.
- Do not leave the machine with the engine running.
- At the end of the working day, the machine must be cleaned and the condition and safety elements checked, in case of finding any damage, it is necessary to inform the corresponding person.
- In order to refuel the machine must be carried out in a ventilated place, and smoking during this operation is completely prohibited.
- The engine of the machine must also be stopped to fill the gas tank, it is advisable to wait for it to cool.
- Seat machines should only be moved from this position.
- To prevent unauthorized use, always remove the ignition key.
- Particular attention should be paid to periodically checking and changing filters and brushes to ensure greater effectiveness.



B. Sweeper

- Do not leave discharged batteries, recharge them as soon as possible.
- To prevent leakage, always keep batteries clean and dry.
- Protect from dirt.
- If they produce foam and they leak fluid, the appliance must be disconnected immediately.
- Adjust the drying lips with the adjusting wheel so that they touch the ground.

C. Rotary

Use the machine according to the manufacturer's instructions.

- Before starting the machine, perform a small safety check:
- Cables: Check their good condition.
- Polished plate: check that the plate has and! Proper size for machine.
- Abrasive disks and steel wool: Ensure that the pads or steel wool are suitable for the cleaning task that they will perform that are clean and in good condition.
- Brushes - If cleaning requires brushes make sure they are clean, in good condition and meet machine requirements
- Use only accessories specified by the manufacturer.
- Do not store the machine with its plate, pads or brushes.
- Stop the machine and unplug it if the power cord is damaged.
- Do not force the machine: unplug and move it to the nearest plug.
- Do not pull on the cord to unplug the machine.
- If you have to use a chemical, read the safety data sheet before using it.
- Wear recommended personal protective equipment such as protective goggles, safety shoes with non-slip sole, respiratory protection and, if applicable, hearing aids.



D. Vacuum Cleaners

- Clean the appliance, accessories or cable after use with a damp cloth.
- Always monitor filters, tubes and hoses as they may become clogged.



E. High-Pressure Cleaners

Preventive measures:



- Before using the machine check its good appearance, cables, maintain, hose, etc.
- Use personal protective equipment, among others: goggles, boots with non-slip sole, waterproof parts.
- When turning on the machine, make sure the spear is securely held in place.
- When turning on the machine, keep in mind that the high-pressure water jet can move backwards.
- Do not direct the spear at electrical appliances.
- Before any maintenance operation, disconnect the machine from the mains and cut off the water supply.
- Do not remove protections installed on the machine and accessories.
- Do not leave the machine unattended.
- Do not direct the water jet against the machine.
- Do not use in bad weather or in the rain
- In the case of using a chemical, read the safety data sheet before use and follow the rules of use, as well as using the recommended personal protective equipment.
- Do not put your hand, or any part of your body on the jet of water coming out of the high-pressure rod.
- Do not use corrosive or flammable liquids in the machine.
- Do not touch the plug with wet hands.
- Do not step on, push or pull strongly on the power cord or the connecting cable.
- Keep the cord away from sources of heat, fuel or sharp or sharp objects.
- Do not use the machine if you notice that the high-pressure water hose is damaged (risk of explosion).

F. Steam Cleaners

Always read the machine instruction manual.



After using these types of machines:

- Empty the water and detergent containers, leaving them dry and clean
- Empty, clean and dry the dirty water container.
- Clean accessories.
- Clean the housing from the visible dirt.

For cleaning surfaces:

- **Stainless steel cleaning** - Avoid using abrasive brush. Use a nozzle with a rubber fitting or a concentrated nozzle without a round brush.
- When cleaning **lacquered or synthetic-coated surfaces**, such as doors, parquet, etc., wax, furniture treatment product, plastic coatings or colour can be dropped or stained. To clean these surfaces, apply steam with a cloth to the surface.

2.2 STORAGE OF DIFFERENT MACHINERY

- Maintaining the order and cleanliness of the place where we store the machines and their accessories is essential for their conservation.
- The operator is responsible for keeping in perfect order the place where the machines and their accessories should be stored.
- Each time a **cleaning machine is used, the accessories** needed for cleaning work must **be perfectly clean** after use and after storage, this will prevent their deterioration; filters should be clean, dry and brushes free of dirt.
- We will always keep the manufacturer's recommendations because, in case of damage or

2.3 INTERPRETATION OF TECHNICAL DATA SHEETS AND MACHINERY SIGNALLING

Security signalling is a complementary precautionary measure that others cannot substitute. It alone does not exist as a precautionary measure, but is the last link in a chain of basic preventative actions that begin with risk identification and evaluation.

After instructing and protecting workers by informing, providing personal protective equipment and working procedures, we reach the last stage in which signalling is considered to be a complementary precautionary measure to those of the previous.

This information must be understandable and the worker must take into account the need to pay attention to the risks arising from the work teams present in his environment, even if they do not use them directly.

The signs will remain the necessary time for the task and must be kept in perfect condition, and will be replaced immediately in the event that this does not happen.

There are generally several types of signage for the workplace:

<p>Signs in the form of panel: They are those that, by the combination of their geometric form, of colours and of a symbol or pictogram, provide certain information, this visibility is assured by the illumination of sufficient intensity. The security colour is assigned a certain significance in relation to safety and health at work, and the symbol or pictogram shows a specific situation or forces a certain behaviour, used on a panel-shaped signal or on a luminous surface. - Notes - prohibition - obligation - firefighting - rescue or relief.</p>	
<p>Light signals: A signal emitted by a device made of transparent or translucent materials, illuminated from behind or from the inside, so that it appears by itself as a luminous surface.</p>	

Acoustic signals: A coded sound signal emitted and broadcast by my donor of an appropriate device, without the intervention of human or synthetic voice.



Gesture signals: A movement or disposition of the arms or hands in a coded form, to guide people who are performing manoeuvres that may constitute a risk or danger to the workers or users.



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