



Healthy Workplaces Campaign 2018-19

Manage dangerous substances in the workplace
HWC Summit 2019 Bilbao



EU2019.FI



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PARALLEL SESSION 2: GOOD PRACTICES AND INTERVENTIONS

How can we effectively communicate to workers about dangerous substances?



EU2019.FI





Employers, managers, supervisors, workers and their representatives need to know about the risks to workers' health in the workplace and how to manage those risks.

Effective communication about them is a challenge.

How can we effectively communicate to workers about dangerous substances?



FLINN SCIENTIFIC, INC.
Safety Data Sheet (SDS)

909 F. 1st St.
Revision Date: September 26, 2013

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
n-Butyl Alcohol

Flinn Scientific, Inc., P.O. Box 299 Danvers, IL 60119 (800)443-0300
CHEMTEC Emergency Phone Number (800)444-0300

SECTION 2 — HAZARD IDENTIFICATION

Hazard class: Flammable liquids (Category 2) Flammable liquid and vapor (H226). Keep away from heat, sparks, open flames, and other surfaces. No smoking (P201).

Hazard class: Acute toxicity, oral (Category 5) Harmful if swallowed (H302). Do not eat, drink or smoke when using this product (P501).

Hazard class: Skin corrosion or irritation (Category 2) Causes skin irritation (H315).

Hazard class: Serious eye damage/irritation (Category 2) Causes serious eye damage (H318).

Hazard class: Specific target organ toxicity - single exposure respiratory tract irritation (Category 3) May cause respiratory irritation (H335).

Hazard class: Specific target organ toxicity - single exposure: Nervous system effects (Category 3) May cause drowsiness or dizziness (H350). Avoid breathing mist, vapors or spray (P501).

SECTION 3 — COMPOSITIONAL INFORMATION ON INGREDIENTS

Component Name	CAS Number	Synonyms	Form	Concentration
n-Butyl Alcohol	71-36-3	ETHYL BUTYL ALCOHOL	LIQ	

SECTION 4 — FIRST AID MEASURES

Call a POISON CENTER or physician if you feel unwell (P302).

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P311).

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing (P303+P361+P353).

If on skin or hair: Remove/strip clothes if contaminated clothing. Rinse skin with water (P303+P361+P353).

If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell (P304+P340).

SECTION 5 — FIRE FIGHTING MEASURES

Class: 3 Flammable liquid

Flash point: 11 °C Flammable liquid Lower: 1.4% Upper: 0.2% Autoignition Temperature: 140 °C

Water based extinguisher, dry and CO2 and CFC.

In case of fire Use water spray (F301-F310).

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Remove all ignition sources and contain spill. Control the spill with sand or other inert absorbent material and deposit in a sealed bag or container. See Sections 7 and 11 for further information.

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J-117 Lubricating Oil and Belt Dressing
Product Code: J-1107 U3

DANGER
Highly flammable
Liquid and vapor

In case of Fire: Use dry chemical (BC) or Carbon dioxide (CO2) fire extinguisher

First Aid (Ingestion): DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to a person who is unconscious or drowsy. Get immediate medical attention by calling a poison Control Center, or hospital emergency room. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital.

Dispose of in accordance with local, regional, national, international regulations as specified.

Fill Weight: 18.52 lbs Lot Number: A032311323 Gross Weight: 20 lbs
Exp. Date: 1/5/2016 Fill Date: 1/5/2014

Direction Use: Make sure to shake well before using. If crystallization has occurred, do not use and discard in accordance to approval methods.

Thane Chemical Company

REACH aims to improve the amount and quality of information available on chemicals and defines new provisions for **communication** throughout the supply chain.
CLP uses this information to help identify accurate classifications and hazard **communication** for the user.

How can we effectively communicate to workers about dangerous substances?



REACH CLP Exposure scenarios



Símbolos de Peligro GHS / DFP



Pictogramas de Peligro CLP



How can we effectively communicate to workers about dangerous substances?



REACH and or CLP are not (fully) applicable to some types of substances, for example

- medicines such as cytostatic drugs,
- cosmetics such as hairdressing products, and
- food and feed stuffs.

Users may then not have access to SDS or labelled chemicals but may receive the information on hazards and safe use from their suppliers in a different form.

hairdressers



How can we effectively communicate to workers about dangerous substances?



REACH and or CLP are not (fully) applicable to some types of substances, for example:

selective collection of solid waste



How can we effectively communicate to workers about dangerous substances?



REACH and or CLP are not (fully) applicable to some types of substances, for example:

deburring



stone cut



some waste



The chemical agents directive specifies that employers shall obtain additional information that is needed for workplace risk assessment from the supplier or other readily available sources.

How can we effectively communicate to workers about dangerous substances?



Under workplace legislation, employers must have an overview of all these risk factors and how they may interact to put workers at risk. They must also consider all the products, even when those are used as intermediaries, stored or transported, and all relevant tasks.

Workers in many modern industrial settings have long faced a multitude of chemical threats to their health and safety—some of them obvious, many more barely perceptible.



How can we effectively communicate to workers about dangerous substances?



It is important to note that hazards depend on how and under which circumstances substances are used at the workplace.



acute



chronic

Risk Assessment

How can we effectively communicate to workers about dangerous substances?



Flour dust is not commonly perceived as dangerous, but it may become a **health hazard** to bakers, or may even cause **explosions**.



Manual weighing



Cleaning- Use of vacuum cleaner





The employer's responsibility to ensure that workers and their representatives are informed and trained about:

- hazardous properties of the chemicals;
- the level, type and duration of exposure and the circumstances of work;
- appropriate precautions to safeguard themselves and other workers in the workplace, including what to do if there is an accident (e.g. spillage) or emergency;
- the effect of risk-management procedures;
- relevant occupational exposure limit (OEL) values;
- conclusions to be drawn from any health surveillance and exposure assessment already undertaken.

Source: Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1998:131:0011:0023:EN:PDF>).

How can we effectively communicate to workers about dangerous substances?



The employer shall ensure that workers are aware of changes in processes or substances used.

How can we effectively communicate to workers about dangerous substances?

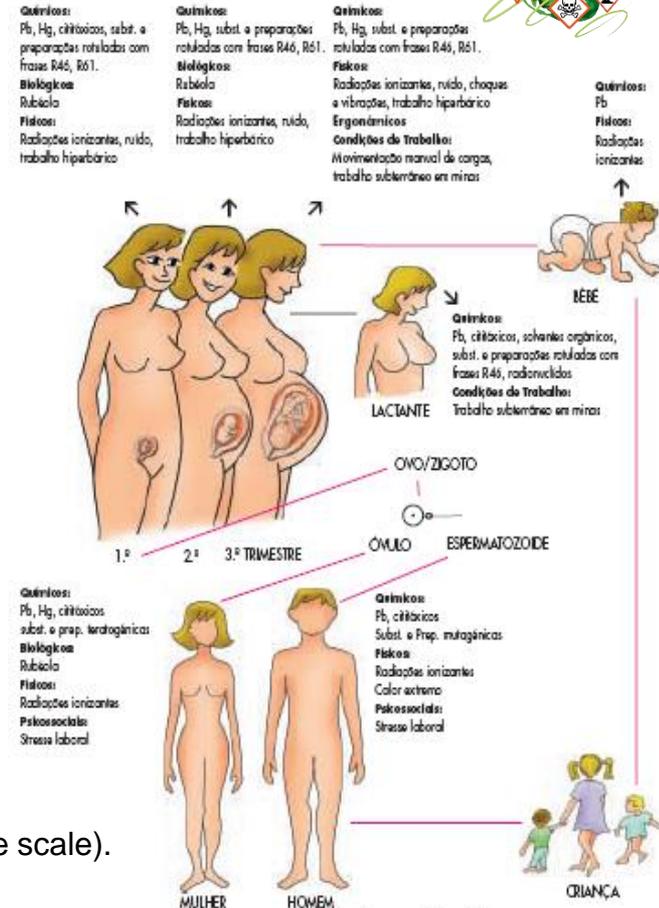


There are specific rules for protecting young people and pregnant or breastfeeding workers and workers who have recently given birth, and for informing them.

for example:

Pregnant and lactating women are kept away from workplaces where the following chemicals are used:

Toxic and
CMR - H340 and H341; H360 and H361; H362 (lactating);
H370-H371-H372-H373.



(Note: the drawings are not all on the same scale).

How can we effectively communicate to workers about dangerous substances?



Employers must keep records about exposure and health surveillance of workers who are likely to be exposed to hazardous substances, especially carcinogens and mutagens, and give workers access to their personal data.

for example:

Specific tests to ensure that exposure to substances such as lead, nickel and thiocyanates is controlled.



How can we effectively communicate to workers about dangerous substances?



Member States are entitled to

To Support to Hygiene and Safety Technicians



PT



GUIDES

Control of Exposure to Chemical Agents

Selection of Individual Protection Equipment (PPE)

Selection of Protective Gloves - Chemical Hazards

Selection of Respiratory Protection Apparatus

SHEETS

Chemical Risk Assessment

From Manufacture to Use of Chemicals. A Complementarity of Approaches.

Communication of Chemical Risks in the Supply Chain

Safety technician at work

Source: ([http://www.act.gov.pt/\(pt-PT\)/Campanhas/Campanhas%20a%20decorrer/REACH/Instrumentosdeinformacao/Paginas/default.aspx](http://www.act.gov.pt/(pt-PT)/Campanhas/Campanhas%20a%20decorrer/REACH/Instrumentosdeinformacao/Paginas/default.aspx))

How can we effectively communicate to workers about dangerous substances?



To Support to Hygiene and Safety Technicians and Medical Surveillance

Technical Guide # 2
Health surveillance of workers
exposed to carcinogens,
mutagens and substances
toxic to reproduction

Integrated Risk Assessment Form

FICHA DE AVALIAÇÃO INTEGRADA DE RISCO PROFISSIONAL
A AGENTES QUÍMICOS CMR (Cancerígenos, Mutagénicos e Tóxicos para a Reprodução)

Logos: DGS, SAÚDE OCUPACIONAL

Trabalhador: Nome, Data de nascimento, Data de entrada, Domicílio, Designação, NIPC/NP, Código postal, Empresa (a enviar), Mês, Código postal

1. INFORMAÇÃO DISPONÍVEL (vide Anexo) - **Ponto 6.1. da Guia Técnica da DGS**

1.1. Designação do produto: 1.1.1. Símbolo de perigo CMR: Sim Não 1.3. Palavra-chave: Perigo Atenuado 1.4. Códigos de advertência (colocar cruz nos (aplicáveis) seguintes): Carcinogénico: R010 R011 / Mutagénico: R040 R041 / Tóxico para a Reprodução: R045 R046 R047

2. ANÁLISE DO RISCO PROFISSIONAL - **Ponto 6.2. da Guia Técnica da DGS**

2.1. Identificação/qualificação do fator de risco profissional (vide TDS - *Ficha de Dados de Segurança*) - **Ponto 6.2.1. da Guia Técnica da DGS**

2.1.1. Agente químico (colocar cruz na opção adequada): Substância Mistura 2.1.2. Identificar (o) substância(s) (ou grupo) do produto que estão classificadas em pelo menos uma classe de perigo CMR: Designação, CAS, CIPAC, CIPAC 2, Classe de perigo, Código de advertência, Características de perigo, Previsão de exposição

2.1.3. Indicar parâmetros toxicológicos do agente químico: 2.1.3.1. Indicar parâmetros toxicológicos (incluindo vias de exposição): 2.1.3.2. Indicar parâmetros efeitos perigosos para a saúde:

2.1.4. Manipulação do agente químico (e.g. adição, diluição, etc.) - colocar cruz na situação existente: Não está manipulado Sim, está manipulado Se "Sim", qual: • Descontaminar a manipulação? Não Sim • Prever a manipulação? Não Sim

2.2. Trabalhador exposto e qualificação do controlo de exposição profissional - **Ponto 6.2.2. da Guia Técnica da DGS**

2.2.1. Indicar parâmetros atividades/tarefas com utilização/manuseamento/manipulação profissional do agente químico CMR: 2.2.1.1. Contexto da exposição profissional: 2.2.1.2. Utilização profissional: indicar as operações com utilização do agente químico CMR de maior relevância: 2.2.1.3. Condições operacionais (vide Anexos e 7. da Guia Técnica da DGS) - preencher em quadro abaixo:

Condições	Químico utilizado	Procedimento de trabalho	Condições de ambiente de trabalho	Procedimento de avaliação	Atenuação de risco	PREVAL de prevenção
Prevalência						Indicar a prevalência de exposição a agentes químicos CMR

GUIA TÉCNICO N.º 2
VIGILÂNCIA DA SAÚDE DOS TRABALHADORES EXPOSTOS A AGENTES QUÍMICOS CANCERÍGENOS, MUTAGÉNICOS OU TÓXICOS PARA A REPRODUÇÃO

Logos: DGS, SAÚDE OCUPACIONAL, REPÚBLICA PORTUGUESA

Source: <https://www.dgs.pt/saude-ocupacional/referenciais-tecnicos-e-normativos/guias-tecnicos.aspx>



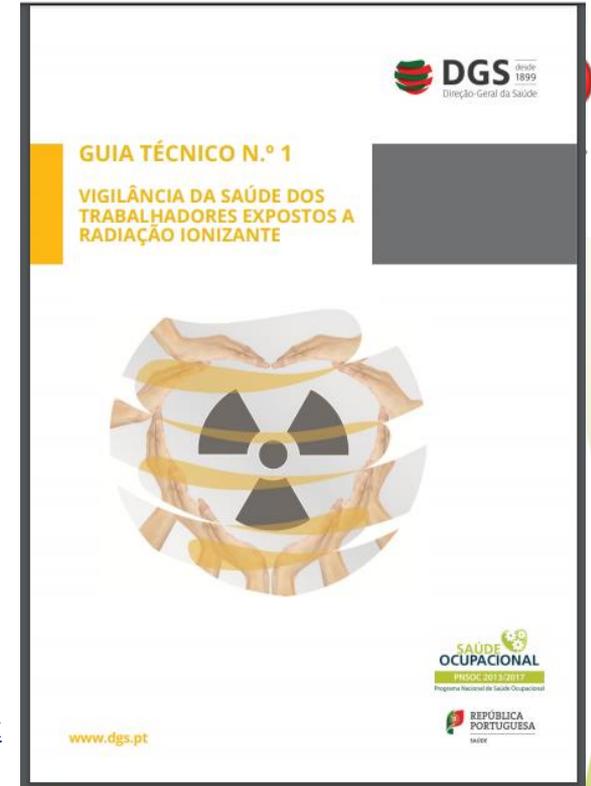
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How can we effectively communicate to workers about dangerous substances?



To Support to Hygiene and Safety Technicians and Medical Surveillance

Technical Guide # 1
Surveillance of the health of workers exposed to
ionizing radiation



Source: <https://www.dgs.pt/saude-ocupacional/referenciais-tecnicos-e-normativos/guias-tecnicos.aspx>



European Lung Foundation - occupational quiz

<http://yourlungsatwork.europeanlung.org/pt/index>



PT

ELF | OCCUPATIONAL HEALTH

ELF EUROPEAN LUNG FOUNDATION

PT

FAÇA O TESTE

SEU LOCAL DE TRABALHO ESTÁ AFETANDO SUA RESPIRAÇÃO?

A QUEM SE DESTINA ESTE

This quiz is for people who are worried that their workplace might be affecting their breathing or lung health.



How can we effectively communicate to workers about dangerous substances?



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ROADMAP ON CARCINOGENS

10 FACTSHEETS:

ASBESTOS

BENZENE

VINYL CHLORIDE

CHROMIUM VI

FORMALDEHYDE

WELDING FUMES

DIESEL ENGINE EXHAUST

POLYCHYCLIC AROMATIC HYDROCARBONS - PAH

SILICA DUST

HARDWOOD DUST

8 FACTSHEETS:

ACRYLAMIDE

BERYLLIUM

CADMIUM

ETHYLENE OXIDE

HYDRAZINE

LEAD

NICKEL

TRICHLORETHYLENE

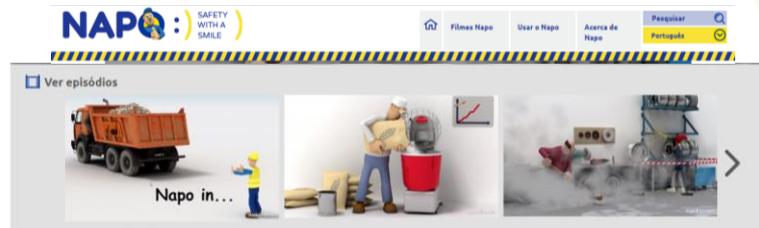
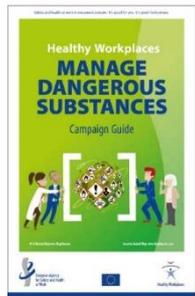


In Portuguese

<https://roadmaponcarcinogens.eu/>

www.healthy-workplaces.eu

How can we effectively communicate to workers about dangerous substances?



The European Campaign HWC materials



How can we effectively communicate to workers about dangerous substances?



**Informed
WORKER**

www.healthy-workplaces.eu

How can we effectively communicate to workers about dangerous substances?



Type of exposure

CLP
REACH CLP Exposure scenarios
ECHA

MANAGE DANGEROUS SUBSTANCES
NAPQ
Twitter, Facebook, YouTube, LinkedIn

DGS
CMR

OIRA



It's enough

E-tools

OS FACTOS CRÓMIO VI
ROADMAP

How can we effectively communicate to workers about dangerous substances?



HOW TO COMMUNICATE WITH THE WORKER?

go to the worker on the **shop floor** and observe his behavior towards dangerous substances

FACE to FACE



OHS expert - worker

continuously and permanently

How can we effectively communicate to workers about dangerous substances?



Install touch screen computer kiosks at various factory sites so that workers and contractors can refer to the SDS. These kiosks must have their own directory for the Occupational Safety and Health System, subdivided into folders.



How can we effectively communicate to workers about dangerous substances?



Issue: 17/November/2018

PREVENÇÃO TÉCNICA

GESTÃO DE PRODUTOS QUÍMICOS

Produto Químico conhecido, Perigo identificado, Trabalhador protegido.

Antes de utilizar qualquer produto químico, o utilizador deve ler o rótulo de segurança e seguir as orientações de segurança incluídas.



No entanto, o utilizador pode querer ter mais informações que não estão no rótulo de segurança mas estão disponíveis nas Fichas de Dados de Segurança.



As Fichas de Dados de Segurança podem ser consultadas em todos os quiosques informáticos existentes no Edifício Técnico, na Aciaria, Oficina de Calibragem, Armazém Geral e no Edifício da Qualidade.



Os computadores de alguns técnicos possuem ainda uma pasta partilhada denominada "Fichas de Segurança". Através desta pasta, os Técnicos podem anexar as Fichas de Dados de Segurança a Pedidos para contratação de serviços onde a SN Maia é responsável por fornecer os Produtos Químicos.



LEMBRE-SE:
Produto Químico conhecido, Perigo identificado, Trabalhador protegido.

MEGASA

The employer should adjust the recommended measures from the safety data sheets to the specific conditions of each workplace.

- Preparation of a summary sheet
- Put next to the workstation where this product is used

How can we effectively communicate to workers about dangerous substances?



Conduct weekly or daily activities called "Safety Dialogues", with various topics related to OSH, where the subject of Chemical management is sometimes addressed and discussed.

“Safety Dialogues” are quick meetings of about 10 minutes at the workplace.





360° vision in Hazardous Substances management



How can we effectively communicate to workers about dangerous substances?



There is clear evidence to suggest that SDSs are an ineffective way of communicating information to employees.



TE Connectivity - Évora 713

Instalação
ATEX

01





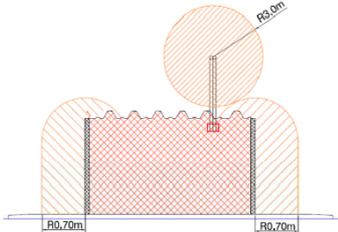


Designação:	Posto de redução gás natural (PRM)
Responsável:	Carlos Oliveira Tel.: 4021
Outros responsáveis:	ATEX Protection Officer Tel.: 4603
	
Classificação da zona	Z1 + Z2

Proibições / Regras / Informações:

- ▶ Proibida a intervenção de pessoas não autorizadas.
- ▶ Proibido fumar ou foguear nas imediações.
- ▶ Proibido o uso de telemóveis. Podem provocar inflamação dos vapores.
- ▶ Utilizar só aparelhos com protecção ATEX (antideflagrantes).
- ▶ Utilizar calçado anti-estático e fato de trabalho anti-estático ou de algodão.
- ▶ Tomar em consideração a ficha dos dados de segurança dos produtos perigosos "Gás Natural".
- ▶ Utilizar ferramentas não geradoras de faíscas nas manutenções.
- ▶ Os trabalhos de manutenção só podem ser realizados após confirmação por parte do responsável desta zona ATEX

Autorização para a realização de trabalhos com fontes de ignição em locais com atmosferas explosivas



Localização:
Exterior Cantina

Elaborado por:
ATEX Protection Officer

 Zona 0
  Zona 1
  Zona 2
 Zona 20
  Zona 21
  Zona 22


 TFCO ELECTRONICS
 Documento 1
 Rev. 0
 2014/08
 SCD/AR/AR/AR
 SCD/AR
 PRM - Posto de Redução Gás Natural



Training / Awareness raising / Information

New Employees - 2 hours General Training in Chemical Safety

Workplace - specific training on each chemical used

The supporting document is a Safety Instruction which is ultimately signed on the back.

Specialized training for roles such as ATEX and Fire Prevention or ADR Officer.

The Resp. Department have every 2 years training in EHS Legal Requirements, which always includes the topic of chemical safety.



Specific Training by Chemical Instruction based on Safety Instruction



Do all workers know:

- ❖ about the risk assessment of their workplace?
- ❖ what hazards they are being exposed to?
- ❖ how they may be affected?
- ❖ about the results of any exposure monitoring or health surveillance?
- ❖ what they have to do to keep themselves and others safe (i.e. how the risks are to be controlled)?
- ❖ how to make full and proper use of all the control measures provided?
- ❖ how to check and spot when things are wrong and to whom they should report problems and defects with any control measures?
- ❖ how to carry out the foreseen maintenance and functionality checks, especially of local exhaust ventilation and other protective devices?
- ❖ about preventive and protective measures to be taken in case of maintenance work?
- ❖ about first aid and emergency procedures?
- ❖ what they should do in the event of an accident, incident or emergency involving hazardous substances?
- ❖ how to handle waste?

Are workers involved in regular updates of risk assessment and regularly retrained?



Effectiveness

Changes in product knowledge

Attitudinal changes

Changes in risk perception

Behavioural changes

Changes in cumulative exposure

How can we effectively communicate to workers about dangerous substances?



Training of new collaborators with approach to the theme "Use of Chemical Substances and Preparations", with the viewing of didactic films on the subject.



Host

create need and curiosity

How can we effectively communicate to workers about dangerous substances?



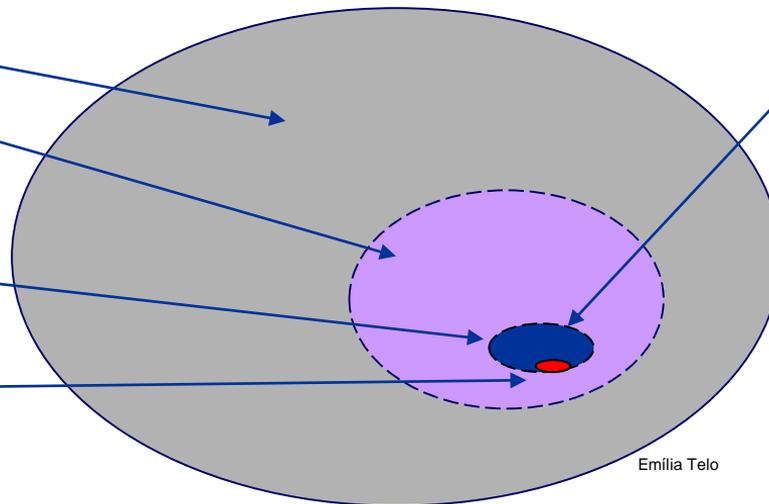
8 million chemicals

Used
110 000

LIMITED KNOWLEDGE

Well tested
8 000

Black list
2000



1700-1800 OLE

Emilia Telo

C ▪ 1098 carcinogenic confirmation in humans **H350 H351**

M ▪ 555 mutagenic (in germ cells) **H340 H341**

R ▪ 313 reprotoxics **H360 H361 H362**

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Thank You!



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[#EUhealthyworkplaces](https://twitter.com/EUhealthyworkplaces)