A Roadmap to S.T.O.P. Carcinogens at Work

The Air We Work In: Protecting Workers From Respirable Carcinogens

28th October 2026 - Romy Marx, Federal Ministry for Labour and Social Affairs, RoC Management

The urgency to act

- >100,000 deaths per year! in the EU due to work-related exposure to cancer causing agents (including respirable process-generated carcinogens)
- No. 1 cause of work-related mortality
- Long latency (up to decades) and despite all achievements and general knowledge, no declining trend
- Our conviction
- Joint and continuous efforts from all actors on the level of legislation, enforcement and sectors is needed to secure compliance and tackle this problem on the long run

Our Story

- 1st phase from 2016-2019 with focus on
- Raising awareness and providing help
- Resulted in the 1st version of the website, 100 best practices and 18 Factsheets
- 2nd phase from 2020-2024 with focus on
- Scalable concrete projects (Challenges) to develop and provide tools
- 2nd version of the website with enriched info
- Final phase from 2025-2027 with focus on
- Preparing the legacy and improving compliance with the help of maximum visibility



What we offer

- Tools for raising awareness
  - ‘CarcCheck’, ‘Factsheets’, ‘S.T.O.P.’
- Collaboration centers
  - ‘Inspectorates’, ‘Control Guidance Sheets’
- Education
  - ‘TaskSheet’, ‘Teaching material’, ‘Gamification tool’
- Communication to all target groups in all languages

Factsheets

- 46 FactSheets on the economically and exposure-wise most relevant cancer-causing agents at work.
- Represents the most accessed info on the website.
- Includes info on exposed workforce, health hazards and most important S.T.O.P.



The facts on Respirable Crystalline Silica

It is estimated that about 5 million workers in the European Union are exposed to crystalline silica dust. Mineral dusts pose the greatest risk of environmental lung diseases in mining, construction and some other industries.

Respirable crystalline silica (RCS) is classified by the IARC as a Group 1 carcinogen, which means that it is considered a definite cause of cancer in humans. RCS can cause severe respiratory diseases and even lung cancer with prolonged exposure and the risk occurs via inhalation of dust.



The facts on Asbestos

Currently, between 4.1 and 7.3 million workers in the EU are exposed to asbestos and it is estimated that asbestos is the cause of death for over 90,000 people each year. Asbestos is classified as Carcinogens category 1A, meaning it is seen as a definite cause of cancer in humans.

Inhalation of asbestos fibers can cause chronic lung diseases like lung cancer, cancer of the lining of the lungs and mesothelioma (cancer of the pleura and peritoneum), and asbestosis (serious scarring condition of the lung causing progressive shortness of breath). According to the World Health Organization, approximately half of all occupational cancer deaths are caused by asbestos.



The facts on Diesel engine exhaust (DEE)

It is estimated that more than 3.6 million workers in Europe are exposed to diesel engine exhaust (DEE). Diesel exhaust fumes are classified as Group 1 carcinogen by the IARC, meaning they are seen as a definite cause of cancer in humans.

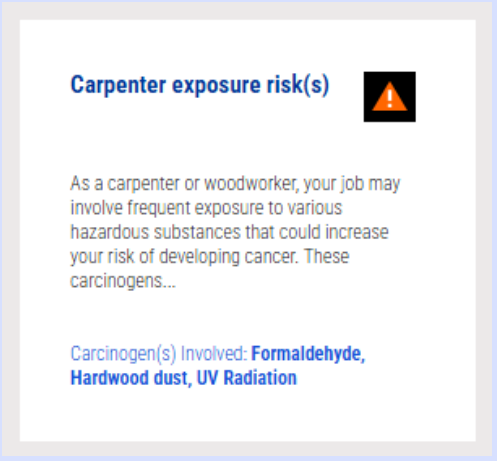
There are nearly 4,700 cases of lung cancer and more than 4,200 deaths per year, which are all linked to DEE in the EU. The main route of exposure is by breathing in diesel engine exhaust. Workers that are often exposed to DEE, have an increased risk of up to 40% to develop lung cancer.

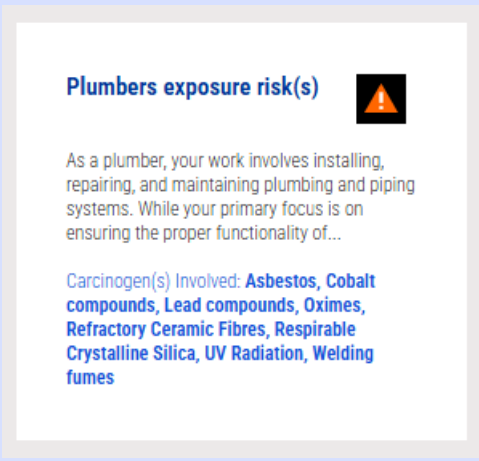
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CarcCheck

- Search for your job and we will tell which carcinogen(s) is likely to occur and what can be done
- Currently covering approx. 300 jobs in 150 sectors
- Linked to best practices and flagship tool of the website



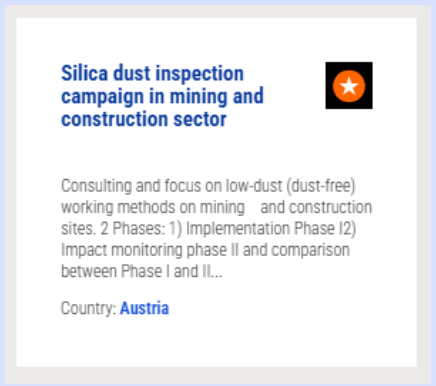


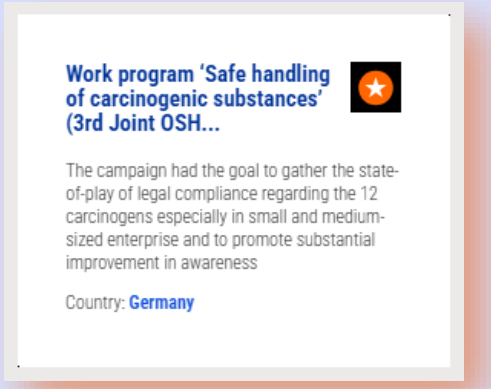


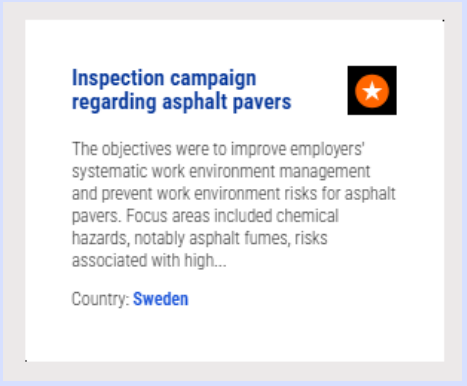


Inspectorate cases

- Vj g'r wtr qug
- C'ur ceg'hqt'ncdqwt'kpur gevqtcvgu'cetquu'GW'vq'uj ctg'ecugu'kp'qtf gt'vq'hquvgt'vcpur ctgpe{.'eqnncdqtcvkqp." ngctpkpi u'cpf 'kppqxcvkqp'cpf 'vq'uj qy 'dwukpguugu'eqo r nkcpeg'ku'lo r qtvcpv'cpf 'pwo dgtu'qh'kpur gevkqpu'y kth' tkug
- Yj q'ku'kpxqnxgf
- UNKE/Ej go gz'eqqtf kpcvqtu'- 'xctkqwu'TqE'r ctvpgtu'*CV'DG'KG'FI 'GORN+
- Rcuu'kv'qp#Ur tgcf 'vj g'y qtf '('j gnr 'wu'tckug'cy ctgpguu#
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Menu

S.T.O.P. CARCINOGENS AT WORK

Language Search

A European wide voluntary action scheme

Understand the risks

Know the risks for your occupation

Are you being exposed to carcinogens at work? Find it out here.

Know the facts of each carcinogen

Learn about the risks, exposure limits and possible measures.

Know your rights and duties

What do employers legally have to do? What are workers' rights?

Take action

Implement prevention strategies

Prevention from cancer-causing agents is key! What can you do?

Find solutions

Find measures and good practices to reduce or eliminate exposure.

Educate to raise awareness

Teach future workers and professionals to work and life healthier and safer.

About us

About the Roadmap on Carcinogens

This website is an initiative from the Roadmap on Carcinogens.

Collaborate with us

We invite a network of professionals to join us: labour inspectorates, educational institutions, trainers and experts.

News and updates

Read about developments and activities to tackle work-related cancer.

Sign up for our newsletter to become part ur community. Or follow us on LinkedIn and join the conversation!

Carcinogens are cancer-causing agents or substances.

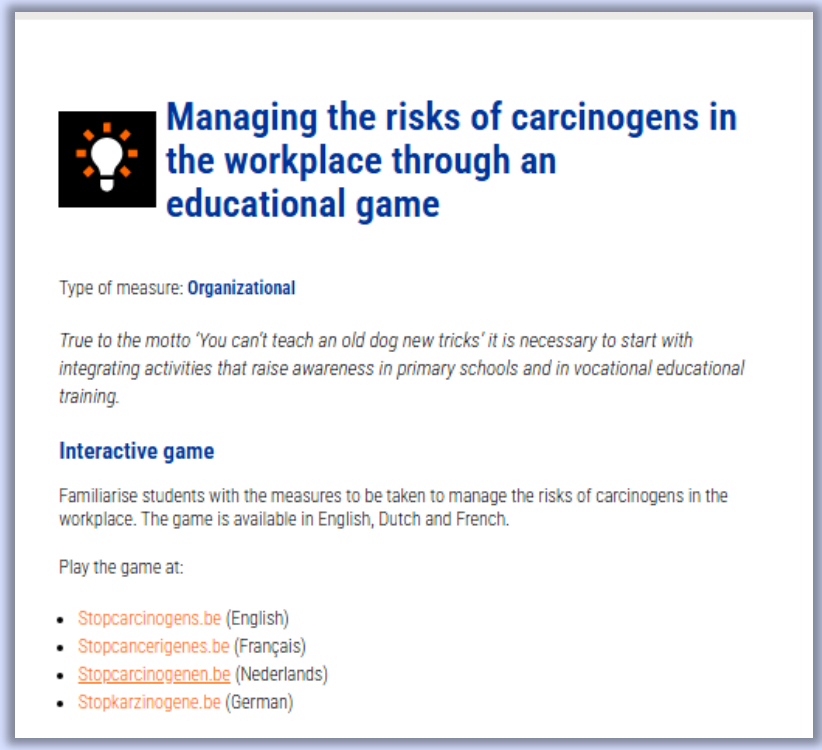
Basic pr ntion from cancer-causing agents is key! What can you do?

Are you being exposed to carcinogens at work? Find it out here.

Education and training

Education is Key

- For children/youth
- Interactive game + teaching material for children from 11-14+



Managing the risks of carcinogens in the workplace through an educational game

Type of measure: **Organizational**

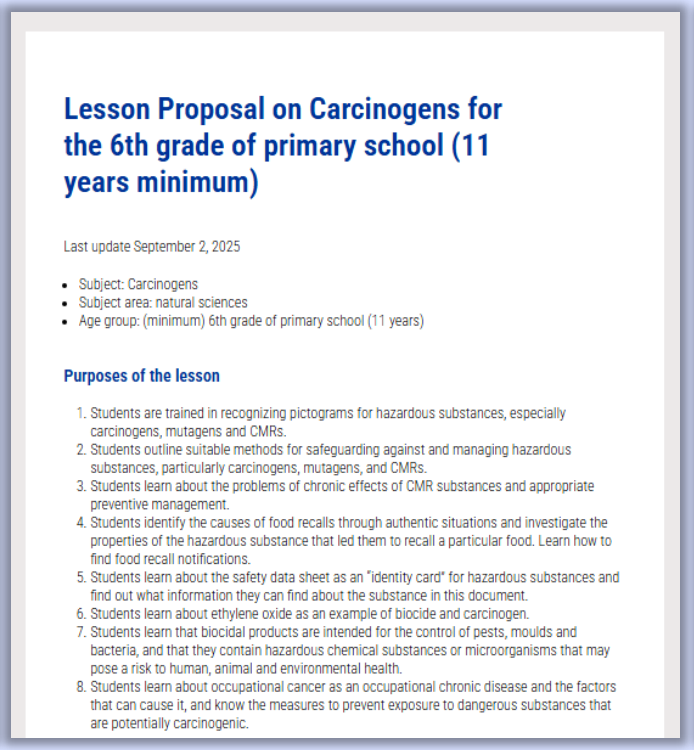
True to the motto 'You can't teach an old dog new tricks' it is necessary to start with integrating activities that raise awareness in primary schools and in vocational educational training.

Interactive game

Familiarise students with the measures to be taken to manage the risks of carcinogens in the workplace. The game is available in English, Dutch and French.

Play the game at:

- Stopcarcinogens.be (English)
- Stopcancerigenes.be (Français)
- Stopcarcinogenen.be (Nederlands)
- Stopkarzinogene.be (German)



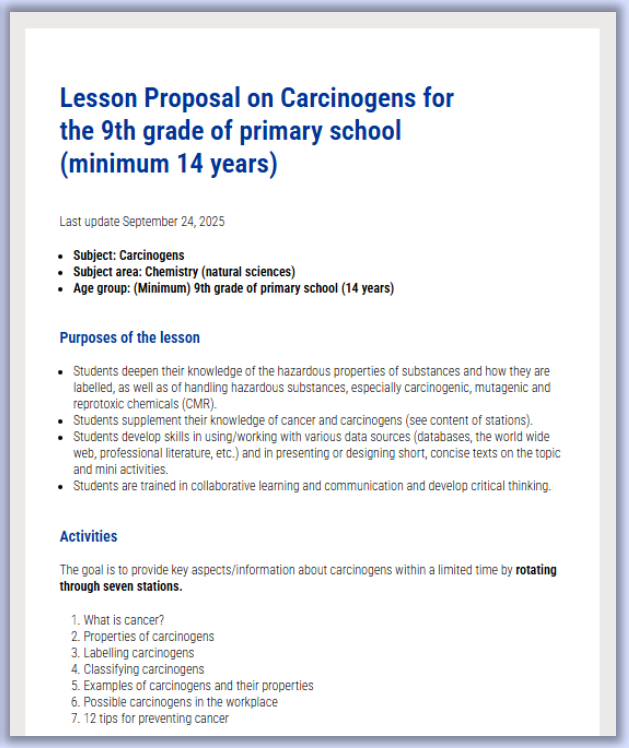
Lesson Proposal on Carcinogens for the 6th grade of primary school (11 years minimum)

Last update September 2, 2025

- Subject: Carcinogens
- Subject area: natural sciences
- Age group: (minimum) 6th grade of primary school (11 years)

Purposes of the lesson

1. Students are trained in recognizing pictograms for hazardous substances, especially carcinogens, mutagens and CMRs.
2. Students outline suitable methods for safeguarding against and managing hazardous substances, particularly carcinogens, mutagens, and CMRs.
3. Students learn about the problems of chronic effects of CMR substances and appropriate preventive management.
4. Students identify the causes of food recalls through authentic situations and investigate the properties of the hazardous substance that led them to recall a particular food. Learn how to find food recall notifications.
5. Students learn about the safety data sheet as an "identity card" for hazardous substances and find out what information they can find about the substance in this document.
6. Students learn about ethylene oxide as an example of biocide and carcinogen.
7. Students learn that biocidal products are intended for the control of pests, moulds and bacteria, and that they contain hazardous chemical substances or microorganisms that may pose a risk to human, animal and environmental health.
8. Students learn about occupational cancer as an occupational chronic disease and the factors that can cause it, and know the measures to prevent exposure to dangerous substances that are potentially carcinogenic.



Lesson Proposal on Carcinogens for the 9th grade of primary school (minimum 14 years)

Last update September 24, 2025

- **Subject: Carcinogens**
- **Subject area: Chemistry (natural sciences)**
- **Age group: (Minimum) 9th grade of primary school (14 years)**

Purposes of the lesson

- Students deepen their knowledge of the hazardous properties of substances and how they are labelled, as well as of handling hazardous substances, especially carcinogenic, mutagenic and reprotoxic chemicals (CMR).
- Students supplement their knowledge of cancer and carcinogens (see content of stations).
- Students develop skills in using/working with various data sources (databases, the world wide web, professional literature, etc.) and in presenting or designing short, concise texts on the topic and mini activities.
- Students are trained in collaborative learning and communication and develop critical thinking.

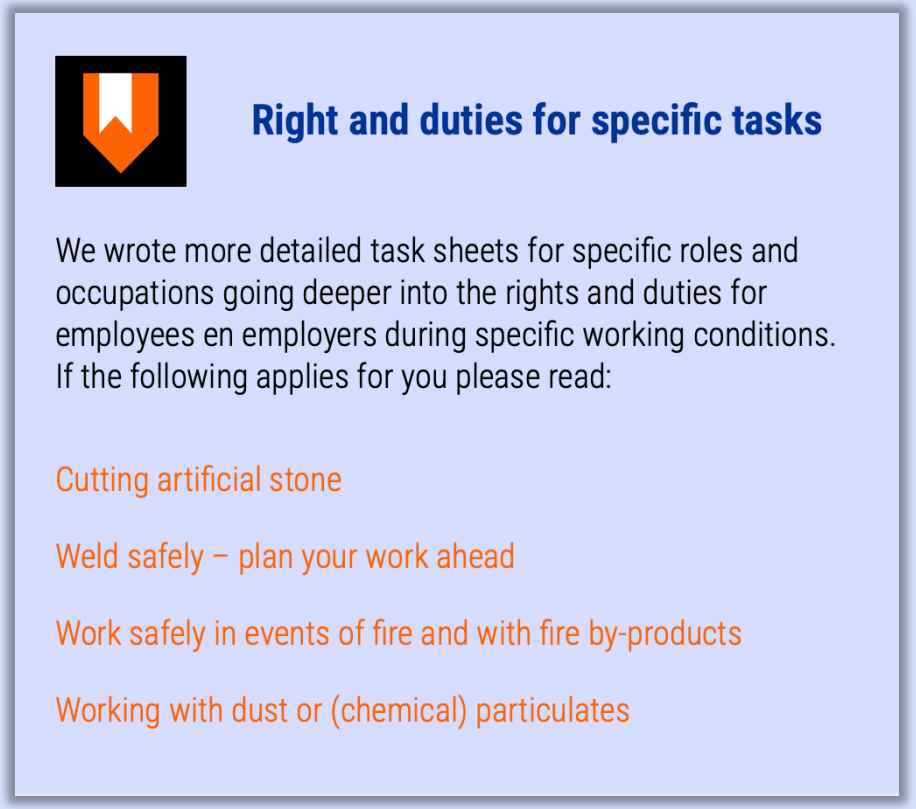
Activities

The goal is to provide key aspects/information about carcinogens within a limited time by **rotating through seven stations.**

1. What is cancer?
2. Properties of carcinogens
3. Labelling carcinogens
4. Classifying carcinogens
5. Examples of carcinogens and their properties
6. Possible carcinogens in the workplace
7. 12 tips for preventing cancer

Education is Key

- For active workforce
- Reference to all content within the website that serves raising awareness and empowers workers to be aware about their rights but also duties
- TaskSheets specifically highlighting respirable hazard to multiple carcinogens (three for the time-being)



Cutting artificial stone

Watch out for the invisible dust when processing artificial stone

Artificial stone is mainly used as kitchen countertops and tabletops as well as wall panelling in bathrooms. It consists of silica (up to 93%) and synthetic resins for binding. Working with artificial stone with cutting and grinding tools, generates dust with very high proportions of silica. Breathing in this dust leads to considerable health risks. Exposure to respirable crystalline silica is associated with cancer development but also with inducing chronic lung diseases (silicosis, COPD). Therefore, it is crucial to minimise dust exposure during any processing as much as possible. If not sufficiently possible, it is most important to shorten the dwelling time of dust at the workplace and to only unequip respiratory protection after the work space has been sufficiently aired out.

Things you should know!

The risks

Quartz or silica artificial stone still consist up to 93% of silica with synthetic resins to bind it. Any processing of artificial stone by cutting, drilling or grinding with tools generates dust of ultrafine respirable crystalline silica particles which are found to cause lung cancer and may facilitate fast induction of silicosis. Especially on construction sites in course of renovation, further hazardous substances can additionally occur, for example asbestos containing tile adhesives or asbestos containing flooring and wall covering.

Combined Dust extraction needed

Due to the high concentration of silica within the material, processing artificial stone needs in most cases a combination of different technical protection measures. The most effective measure is dust extraction at the processing point. High efficiency in the dust collection at this point leads straight to low concentration in front of your nose. But if you are for example grinding edges or cutting arches or uneven materials, it will not be sufficient and it is mandatory to combine the point extraction with local exhaust ventilation.

Carcinogens involved
Sector(s) involved
Occupations involved

Table of contents

1. Things you should know!
2. Your employer's duties to protect you!
3. Your own duties to support your own and your colleague's protection!
4. Take-home message
5. Which carcinogen(s) are present?

Further content still to come

- Instructions
- Workers have to be instructed before performing a task for the 1st time and regularly
- The instruction section will provide examples for certain tasks and carcinogens what it should contain
- As for now, 10 examples are focussing on respirable hazards

	Instructions for…
1	Activities involving mineral raw materials that may contain asbestos
2	Work at cold fire sites (fire damage restoration) (PAHs)
3	Welding activities
4	Work involving hardwood dust exposure
5	Work involving lead and lead compounds
6	Use of trichloroethylene in der metal degreasing
7	Metal surface treatment in galvanisation with CrVI
8	Use of paints and colour containing oximes for anti-skinning purposes
9	Work involving exposure to diesel engine exhaust
10	Use of azodyes for non-destructive material testing

Reaching out

- We strive at offering our collected knowledge to all employers and workers across Europe – independent from where they are situated
- **17 language versions** proof-read by native speakers and published; Hungarian, Greek and Ukrainian are in progress
- Remaining languages will also be published using **machine translation**



Thank you!

On behalf of the Roadmap management from the Netherlands and Germany.

Should you have any questions feel free to contact us at roadmaponcarcinogens@info.eu