

What to do in a major emergency

Helpline 0800 783 0187

Information from INEOS Vinyls Ltd, Vopak Terminal Windmill Ltd, Hexion Specialty Chemicals Ltd and Dow Corning Ltd

1 Warning you about a danger

- If there is an emergency we will switch our siren on.
- The siren will sound on and off for five minutes. Vopak siren will be continuous.
- We test our sirens every Monday between 3pm and 3.30pm. Try to become familiar with the sound.

2 Actions to take

You should:

- go indoors immediately
- stay indoors until the police tell you otherwise or you hear the all-clear signal
- keep your pets indoors if possible
- offer shelter to anyone walking nearby until the emergency is over
- stay calm

Do not:

- collect your children from school – they will be well cared for at the school
- go outside – wait until you are told it's safe to do so
- ring the emergency services unless you need their help for a separate emergency. The phone lines need to be free for the emergency services.

3 How to make your place safe

You should:

- close all your windows and doors
- block any draughts
- close your curtains
- switch off ventilation fans
- switch off all gas appliances (for example, fires, cookers and so on)
- move to a room facing away from the sites

Do not:

- light matches or naked flames
- smoke

4 Where you can get more information

- Turn on your TV to BBC Wales, ITV Wales or S4C.
- Listen to local radio stations (see the list opposite).
- Listen for any loudspeaker announcements.
- Follow any instructions you are given by the police or other emergency services.

Radio stations

BBC Radio Wales	882 MW & 103.9 FM
BBC Radio Cymru	93.7 FM
Capital Gold	1359 MW
Real Radio	105.4 FM
Red Dragon FM	103.2 FM
Vibe 101	101 FM

5 The all-clear signal

- When the emergency is over, we will turn on the all-clear signal.
- The signal is a continuous blast of the siren which lasts one minute.
- Wait until you hear the all-clear signal before you go outside.

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DOW CORNING

Information on sheltering in place

Helpline 0800 783 0187

What is sheltering in place?

The term sheltering in place means to get inside a building and remain there during a chemical emergency rather than evacuate the area. Though the natural tendency is to flee from a vapour cloud, it may be more dangerous if you have to go through toxic vapours or if you can't outrun them. Sheltering in place is usually used when there has been a serious hazardous chemical spill that has quickly caused a toxic atmosphere and there is not enough time to safely evacuate. Usually, the toxic vapours are dispersed by the wind before an area could be completely evacuated. Sheltering in place is likely to last not more than an hour or two.

Why should I shelter in place?

During a hazardous incident, the idea is to keep everyone's exposure to the chemical as low as possible. It is best to get out of the area and have no exposure, but in a sudden chemical release there may not be time to evacuate an entire area. An emergency evacuation could potentially put people at a greater risk than if they had stayed in their homes or work places. Though it is better to be in a car than to be outside, it is better yet to be in a building. When you shelter in place, you still may be exposed to small amounts of the chemical but you are much less likely to be exposed to toxic levels than if you were outside. So, unless otherwise instructed to evacuate, sheltering where you are could be the best way to safely wait out a hazardous chemical release.

How safe is it to shelter in place?

In a 2001 report by The National Institute for Chemical Studies, several studies were cited that demonstrate the value of sheltering in place during a chemical emergency. Sheltering in place cannot completely eliminate all exposure to the chemical, but it can keep the exposure below dangerous levels. In conclusion the report said: "For the vast majority of events that have led to the public sheltering in place, there have been no reported injuries... The body of evidence suggests that if there is insufficient time to complete an evacuation, or the chemical leak will be of limited duration, or conditions would make an evacuation more risky than staying in place, sheltering in place is a good way to protect the public during chemical emergencies."

When should I shelter in place?

If there is a chemical release from the Barry industrial complex, you will be notified by the companies' emergency alarm systems.

Where do I shelter in place?

If you are told to shelter in place or if you believe you need to, you should immediately go inside any building close by. If you are not by your own house, a church, school, or shop are good options. If you are not near any buildings, even your car is a better choice than staying outside.

Sheltering in a building, however, is better than sheltering in a car. If there is a building near by, gather your family and pets and go inside immediately. If your children are at school or day care, do not try to get them. The staff at those facilities should know how to shelter in place. It is also possible the school or day care may be out of harms way. Your home is the best place to shelter because you are more likely to know where things are that will help you shelter better.

How do I shelter in place?

If you are in a building, close all the doors and windows. Make sure they are latched so you have the best seal possible. Turn your heating boiler off, especially if it draws air from the outside. Dead air is better than moving air. Turn off all the ventilation fans including bathroom fans and cooker extractors and fans. Shut off the clothes dryer too. Close any dampers on fireplaces or wood stoves.

After you have sealed up the house as well as possible, you can help yourself even more by picking one room in the house to use as a shelter room. Pick a room on your highest level. Most of chemicals that are of concern are heavier than air and will settle at ground level. Try to pick a room that has few or no windows. It also helps if it is on the leeward (downwind) side of the house. Once you have picked a room, bring everyone inside, including your pets. Bring some water if needed and a few snacks. Make sure you have a battery-powered radio and a flashlight or two in case the power goes out. Bring some toys if you have small children.

Once in the room, you can seal windows with plastic sheeting and duct tape. The air vents and bathroom fan should be sealed. Lastly, seal around the door with duct tape. If the space under the door is too big to seal with tape, try stuffing a damp towel under the door.

Always be listening to local radio or watching local TV in case circumstances change. Don't call 999 unless you have an emergency like a fire or a serious injury. Keep your phone available in case someone needs to contact you.

Remember, even if you can smell the chemical in your safe room or car, don't panic. You are still being exposed to lower levels of the chemical than if you were outside.

What if I can't make it to a building?

If you can get to your car, go there. Turn off the ventilation system, close your windows and vents, and tune your radio to a local station. If you are driving, try to avoid driving through a chemical cloud. Going perpendicular to the wind, away from the centre of the cloud will get you to a less harmful atmosphere quicker.

How will I know when it is safe to come out and what do I do then?

Don't worry about being forgotten. As soon as it is safe, authorities will tell you it is safe to leave your building. At that time, they will tell you to open all your doors and windows and turn on all those fans you turned off earlier so the house will air out. The local officials know what the chemicals can do and will be monitoring the area continuously so everyone can leave their home as soon as possible.

Safety information about our sites

Helpline 0800 783 0187

By law, we have to give you information about safety at our sites. This is because our sites must follow the Control of Major Accident Hazards Regulations (known as COMAH). These regulations say that if you live or work in the “public information zone” (see below), we must give you information about:

- the chemicals we use at our sites;
- the steps we take to prevent a major accident; and
- what action you must take in the unlikely event of an accident.

We are also sending you this information if you live outside the public information zone. This is because we believe you may be interested in knowing about the chemicals we use at the sites and what action you should take in an emergency.

What is the public information zone?

The “public information zone” is an area identified by the Health and Safety Executive.

If you live or work within this area you are more likely to be affected if we have a major accident at one of our sites.

What do you make?

Dow Corning Ltd makes a range of silicon-based products. We sell these to other manufacturers who use them in a wide range of products such as shampoos, polishes, cosmetics, car airbags, washing powders and bathroom sealants.

INEOS Vinyls UK Ltd makes PVC (polyvinyl chloride) plastic. PVC is used to make a wide range of everyday products from energy-saving building products to life-saving medical devices.

Hexion Specialty Chemicals UK Ltd manufactures a range of phenolic resins. These are used in a wide range of industries, for example, in the automotive industry to make brake pads and clutch plates; in the foundry industry to help make moulds for molten metal casting (for example when casting engine blocks); and they can even be found in household scourers.

Vopak Terminal Windmill Ltd does not manufacture any materials. We store products and raw materials for our customers.

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What dangerous materials do you use?

We use many different materials at our sites. There are government regulations in place which cover the materials we use.

At **Dow Corning**, we use three chemicals which are classed as dangerous in the COMAH regulations – methyl chloride, methanol and chlorosilanes. Methyl chloride is a colourless gas and methanol and chlorosilanes are liquids. Methyl chloride and methanol are raw materials used at Dow Corning. Chlorosilanes are formed during the process of making silicones.

At **INEOS Vinyls**, we use vinyl chloride, ethyl chloroformate (ECF), methane (Natural gas), alpha methyl styrene (AMS) and isododecane, which are classed as dangerous in the COMAH regulations. ECF, AMS and isododecane are all flammable liquids.

At **Hexion**, there are three main chemicals used which are classed as dangerous under the COMAH regulations. These are phenol, formaldehyde and methanol. Formaldehyde is used as a solution in water and is volatile (evaporates easily). Phenol is a solid at room temperature, although it becomes liquid at around 40 degrees centigrade and has an aromatic vapour. Methanol is a volatile liquid which is also flammable.

Vopak stores methanol and chlorosilanes.

If there was a fire involving methyl chloride, chlorosilanes, ethyl chloroformate or vinyl chloride, it would create hydrogen chloride gas. Hydrogen chloride gas would also be formed if the chlorosilanes came in to contact with air or water.

Why are these materials dangerous?

Methyl chloride, methanol, chlorosilanes, vinyl chloride, ethyl chloroformate, isododecane, formaldehyde and phenol are all toxic. Toxic means that if you breathe in the chemicals, or your skin comes into contact with the chemicals, it could be harmful to your health. Some of the chemicals listed also catch fire easily.

How would these chemicals affect me?

If you came into contact with methyl chloride, methanol, methane, vinyl chloride or isododecane vapour for a short time, you might feel dizzy, disoriented (confused), have a headache or begin to be sick. If you were in contact with these materials over a longer period, it could cause an effect similar to an anaesthetic. In other words, you might become unconscious. In some cases, these symptoms may appear several hours after you came into contact with the chemicals.

If you came into contact with a low concentration (strength) of chlorosilanes or alpha methyl styrene vapour, your eyes, nose and throat could become irritated temporarily (for example streaming eyes, nose and sore throat). If you were in contact with chlorosilanes over a longer time, they would cause the same effects but in a more extreme form.

Formaldehyde vapour has a pungent odour and can cause streaming eyes and tight chest at low to medium concentrations. At higher concentrations in the air it can cause headaches and possibly unconsciousness.

Phenol becomes a liquid above 40 degrees centigrade. It is corrosive and can burn the skin. The vapour is unlikely to pose risk other than as a nuisance odour.

What would cause an emergency at your sites?

There could be an emergency if a large amount of one of these chemicals was released accidentally from a storage vessel or part of our process equipment. This chemical could catch fire and lead to a possible explosion. There might also be a cloud of gas which would be harmful if you came into contact with it or breathed it in.

What would happen if there was an emergency on your sites?

Our sites have procedures to deal with these kinds of emergencies.

We have worked with South Wales Fire Service, police and other emergency services to develop our site emergency plans. The plans show the measures we would take to protect people and property and to control the emergency. Our site emergency response teams would act immediately. We would also call out the emergency services.

We also have a major emergency plan to deal with accidents which could affect the area outside our sites. The Vale of Glamorgan Council's Emergency Planning Unit drew up this plan.

The major emergency plan gives details of the action all the emergency services would take to protect you and your property.

If you want to see a copy of the major emergency plan, you will find one in Barry Town Library and another in Sully Library.

What do you do to prevent accidents?

To reduce the chances of an accident, we build in safety measures at every stage of our operations. We also carry out training programmes to make sure our employees use our equipment correctly and safely.

We also regularly audit (check) our facilities and our safety management systems. Inspectors from the Health and Safety Executive (HSE) regularly visit our sites to make sure we are working safely. The HSE also has copies of our safety reports, which explain the steps we take to prevent accidents.

How will I know if there is an emergency?

If there is an emergency at any of these sites, we will switch our individual major emergency sirens on. The siren will sound on and off for five minutes. Vopak's siren will be continuous.

Police may give you warnings using loudspeakers. Local radio and TV stations will also give you more information.

What should I do if there is an emergency?

If you hear the siren or a warning, you should follow the steps on the emergency procedure card that came with this information.

What effect would an accident have on the environment?

If there is an accident, the materials released would not have a long-term effect on the environment because:

- gas would quickly become less concentrated so any possible effect on local plants and other living things would be temporary; and
- we would deal with liquids using the effluent treatment systems we have at our sites. We have designed these systems to prevent or reduce the risk of liquid chemicals spilling into the River Cadoxton and polluting it.

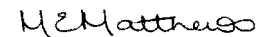
Inspectors from the Environment Agency regularly visit our sites to make sure our operations have as little effect on the environment as possible.

How do I get more information?

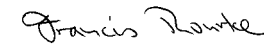
If you are concerned or have questions, please contact us. If you prefer, you can also speak to your local councillor or the Emergency Planning Unit of the Vale of Glamorgan Council.

Contact details for the companies in the complex, and for the Emergency Planning Unit, Environment Agency, and Health and Safety Executive are listed at the back of this calendar.


Helpline 0800 783 0187



Margaret Matthews
Site Manager
Dow Corning Ltd



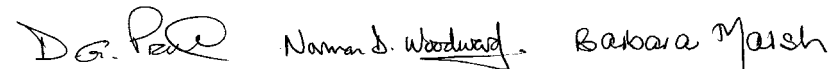
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