



General Spill Procedures

Your organisation will no doubt have protocols and resources for this eventuality. This is a suggested basic plan for training purposes. If this exceeds your plan, then there is perhaps room for discussion.

- ✚ Look after yourself and others. If the safest action to take is **evacuate** then activate the fire alarm and **call 111**, notify others of the situation and evacuate.

Do you know enough about the spilt material? Is it safe to go to the aid of an incapacitated or contaminated person? Do you have the PPE necessary to enter the spill area? Do you have the chemical and First Aid knowledge to render assistance? **If not don't add to the problem**, keep clear, avoid inhaling fumes from the spillage and notify others to provide assistance. **You can't do this alone.**

Let someone know – provide as much information as possible; nature of the incident, chemical involved, volume, location, and approximate concentration if known.

Who makes the decision?

- Can an exposed person be decontaminated with water?
- Does your First Aid Kit have adequate and substance specific resources?
- Can it be cleaned up in house or escalated to FENZ and the Ambulance Service? **No?**

Major spill: – A major spill may be considered by volume or by risk from the hazard. Is it the volume that is the problem or is it a seriously nasty substance where a small spill could be a major problem?

- **Evacuate and call 111.** Do you need to activate an Emergency Shutdown Device (**ESD** – the Big **Red** Button) for any equipment or processes that need to be stopped to prevent escalation?
- If a contaminated victim is involved, sometimes there is no right answer. If it is not safe to stay with that person to render assistance, it is not safe to stay – evacuate
- Have information available for the Emergency Services. That is especially crucial and time critical if a contaminated victim remains within the spill area. By law that information includes the Safety Data Sheet(s) and the building site / layout plan or transport documentation – DG Declaration, Load Plan, Emergency information and Manifest.
- Point out the Spill / victim location to the Officer in Charge. Be precise.

- Name and concentration of the chemical. Don't be obscure, if you worked with it you are the expert on the spot. You are the one they need to hear from. The emergency service providers do not need to know that it has a complicated chemical name. It is enough to pass on any name in common use (if the substance has one), its classification and any relevant or particular risks from the hazard:

Acid / Alkali pH and concentration. Toxic; is it toxic through the skin? Rather important if the victim is lying in the spill or has contaminated clothing. Is it toxic through vapour inhalation or to the eyes? Is temperature or lack of oxygen the issue from non-hazardous cryogenics? Think priorities; what information is time critical to an injured person. FENZ, Ambulance and DHB A&E need to know. A rescue helicopter pilot and paramedic absolutely need to know. It is most unlikely a contaminated person, even if thoroughly decontaminated will be cleared for air transfer. Think about that for field or transport operations.

- Is it safe to decontaminate with water or does some other method need to be considered? Can the person be safely transported by ambulance? You may not know that answer, but you can access information on which that assessment can be made from your chemical supplier; or
- Call the **National Poisons Centre 0800 764 766**
- Estimated volume – how far has it gone, or could it go? Into a water course or roadside ditch, out the door? Down the stairs? Down the lift shaft? Could the spill reach something critical? And has that 'something critical' been shut down?
- Other potential risks / issues in the area that could impede a rescue or spill clean-up. Is the power on? Is the ventilation still operating, is the truck or forklift still running?

This should all have been considered during pre-planning.

Minor spill:

Good luck with defining that! Would a jerrycan of petrol be considered a minor spill? It could be but it would depend where it has spilt and how accessible the spill would be to clean up, the type and layout of the building and equipment. Is it on a ground floor? Are there any potential sources of ignition? What is happening around it? And, are you sufficiently trained and experienced with an extinguisher to deal with any potentially resulting fire? Do you have a suitable fire extinguisher?

Again, this should all be considered pre-planning for every chemical that could present a spillage risk.

Be prepared to escalate and call the emergency services at any time if you find the spill control or clean-up is beyond the abilities of yourself or your staff.

Use all resources available to you, expert advice from the **National Poisons Centre 0800 764 766**, whatever it takes to do the job, safely, efficiently and well with no injuries or adverse effects on personnel, the built or the natural environment.

- Evacuate all non-involved personnel from the area, or room or floor, or building as appropriate.

- Ensure personnel outside the spill area know what is going on.
- Sign off and tape the area.
- Read the SDS or any specific information on the spilt material; is it a mixture, is it a waste?
- For a spill inside a building, the notice should advise 'Caution, hazardous chemical spill clean-up and decontamination is in progress' and then go on to identify;
 - the person in charge;
 - the chemical(s) involved;
 - Classifications including HSNO letter category
 - Spill location
 - Dated and signed by the person in charge. This is all documentation that you may rely on during an investigation, or insurance claim or in court.

A spill kit for minor spills with the information drawn from a number of information sources would likely include:

- Disposable overalls / Tyvek suits medium size; number to suit the facility's spill protocols + one.
- Boots – suitable for the likely task and personnel likely to be involved.
- Gloves – again to suit situation and as recommended in the SDS
- Safety glasses and face shield
- Masks – again to suit situation and as recommended in the SDS from dust through to full face respirators. The question is how far to do want to go or are suitably trained and resourced to go before this is declared a major spill?
- Disinfectant (within use by date)
- Brush, dustpan, squeegee and suitable tools to pick up glass etc.
- Absorbent pads and paper towels – plenty of them.
- Container for disposal. Over size drums are available to hold standard 20 and 209 litre drums.
- Clipboard with pad and pencil and glued on sharpener. Pens may not work – this is not like hunting round for a pen that works to take a phone message.

Practice with the kit, disinfect it, repack it and regularly check it. Become familiar with what is in the kit. Know what to do.

Consider how you would use the contents on various class chemicals – acids, alkalis, oxidisers, toxics, flammables – they require different approaches and clean-up methods and resources.

Evaluate if the contents are suitable. Does it need additional items to suit what is potentially likely to happen? Can you get to the kit safely – different approach routes? Is it stored too far away from the likely spill area, or too close? Are there enough spill kits and are they targeted at the activities?

Once all cleaned up, the storage of the materials ready for disposal needs to be safe and separated from incompatibles. And safe to be around.

Disposal contractor:

Needs to be advised of the contents; everything that was cleaned up and everything that was used to clean up the spill.

The contractor needs to advise on a (signed) receipt that the contents can be safely disposed of in accordance with the EPA Hazardous Substances Disposal Notice 2017 with particular reference to the classification of the substance and with Clause 12 relating to the packaging now containing the waste.

<https://www.epa.govt.nz/industry-areas/hazardous-substances/rules-for-hazardous-substances/epa-notice-for-hazardous-substances/>

You should expect to receive an ‘end disposal certificate’ stating that the substance has been disposed of in accordance with the law.