

Video URL: <https://tc.canada.ca/en/dangerous-goods/canutec/overview-emergency-response-guidebook-erg-2020>

Transcript of Video

When there's an incident involving the transportation of dangerous goods, the first thing you need to keep yourself and the public safe is information.

That's why there's the Emergency Response Guidebook (ERG).

For more than three decades, the ERG has helped first responders identify dangerous goods and their hazards so they can make informed safety decisions when arriving at the scene of an incident.

Every four years, officials in Canada, the U.S., Mexico and Argentina revise the guide to keep it up to date with the latest dangerous goods research and transportation technologies, and to make it even easier to use.

The ERG is divided into colour-coded sections for quick reference.

First, let's look at the white pages at the front of the guide. On the very first page is a flowchart that walks you through every step of the decision-making process.

We'll go over the flowchart in more detail at the end of this video.

This section includes information about the placards, labels and markings used to identify the different classes of dangerous goods.

Beside each set of placards is a black circle with a three-digit number. This corresponds to a specific guide in the orange section that describes how to respond to an incident involving that kind of material.

You'll also find guide numbers for different types of railcars and road trailers based on their shape and the common dangerous goods usually transported in each.

If you know the material's four-digit UN number (also known as its ID number), start with the yellow pages. Here, dangerous goods are listed in numerical order by UN number followed by a three-digit number corresponding to a guide in the orange pages.

If an entry is highlighted in green, you may need to refer to the green pages for the initial isolation and protective action distances.

The blue pages work the same way, but the dangerous goods are listed alphabetically by name rather than UN number.

Watch for any guide numbers followed by a “P”. This means the material may undergo violent polymerization if heated or contaminated — which could cause its container to rupture or explode.

The orange pages are the most important in the ERG. They include 63 safety guides, each covering a group of materials with similar characteristics.

Here you’ll find details on potential hazards and health risks, public safety measures such as immediate isolation and evacuation distances, and emergency response actions to be taken in case of a fire or spill.

When a Canadian flag appears at the bottom of a page, Canadian responders should take note. It means an Emergency Response Assistance Plan may be required for the dangerous goods involved.

For any materials highlighted in green in the yellow and blue pages, the tables in the green section provide more detailed initial isolation and protective action distances.

Table one gives recommended distances for downwind, day and night conditions for both small and large spills.

Table two lists dangerous goods that produce large amounts of toxic gases when spilled in water, and identifies the gases produced.

For large spills of the six most common toxic-inhalation hazard gases, Table three gives recommended isolation and protective distances based on container type and wind speed.

The white pages at the end of the ERG contain a glossary of terms and other important information, including safe standoff distances for improvised explosive devices, distances for boiling liquid expanding vapour explosions (or “BLEVE”), and the user’s guide.

For in-the-field decision-making, the ERG includes a colour-coded flowchart that walks you through each step.

Here’s how it works. Consider, for example, a large gasoline spill.

You don’t see an “explosive” placard or label on the container but the UN number is clearly visible: 1203.

That takes us to the yellow pages, where we see the material involved is gasoline. The three-digit guide number for gasoline is 128. Since there’s no green highlighting and no “P” for polymerization we can go directly to guide 128 for instructions.

Now let’s consider a more complex scenario: a railcar is leaking at a facility in your area.

You don't see an "explosive" placard or the UN number but an employee confirms that the railcar has chlorine inside of it. Since you know the name of the dangerous good, you go to the blue pages and see that the three-digit guide number for chlorine is 124. Be sure to note its UN number as well: 1017.

You see that the entry for chlorine is highlighted in green. So, in addition to using orange guide 124, you'll also need to check Table one in the green pages for initial isolation and protective distances.

Whether you go to the green or orange section next depends on if the material is on fire.

In this case it is not, so you can proceed to Table one. If it was, you would first check guide 124 for fire and evacuation details.

You see that the listing for UN 1017 has a note saying to check Table three.

In this case, the initial isolation distance is suggested at one-thousand metres. Protective distances are then determined by the time of day and wind speed at your location.

Don't forget to consult guide 124 for more general information on potential hazards and emergency response measures.

But what if you don't know either the name or the UN number when you arrive on the scene?

Say the only thing you can see on the railcar is a white placard with a skull above the number "2". In this case, go to pages eight and nine and find your placard among the illustrations. For this one, you'd go to guide 123 for instructions.

These guides can help you determine the best course of action until you can get the exact U-N number or name of the material.

No matter the situation, never rush in. As a first responder, safety is your primary goal. With the ERG by your side, you have everything you need to quickly make the right decisions to protect both yourself and the public.

For more information on how to get your copy of the 2016 Emergency Response Guidebook, visit CANUTEC's website today at tc.gc.ca/canutec.

A mobile app is also available for Apple and Android devices.

The Emergency Response Guidebook is prepared by CANUTEC / Transport Canada in partnership with U.S. Department of Transportation, the Mexican Secretariat of Communications and Transportation, and the Chemical Information Center for Emergencies of Argentina.