Emergency Preparedness, Response and Emergency Response Assistance Plan (ERAP)

Transportation of Dangerous Goods (TDG) Program

Outline

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Transport Canada's TDG program

- Transport Canada's TDG program develops and implements the national program to promote public safety during the transportation of dangerous goods.
- Dangerous goods are products, substances or organisms, which can be solids, liquids or gases, that can harm people, other living organisms, property or the environment if released in the course of transportation.
- Dangerous goods are regulated for transport and are transported in means of containment that are required and permitted under the *Transportation of Dangerous Goods Regulations* (TDG Regulations).

Dangerous goods classes

Dangerous goods are sorted into nine classes and are transported with labels or placards indicating their class. For more information, consult Dangerous goods marks and classes description.

Class 1 – Explosives

Class 2 – Gases

Class 3 – Flammable Liquids

Class 4 – Flammable Solids, Substances Liable to Spontaneous Combustion and Substances That on Contact with Water Emit Flammable Gases (Water-reactive Substances)

Class 5 – Oxidizing Substances and Organic Peroxides

Class 6 – Toxic and Infectious Substances

Class 7 – Radioactive Materials

Class 8 – Corrosives

Class 9 – Miscellaneous Products, Substances or Organisms

CANUTEC

- CANUTEC is the Canadian Transport Emergency Centre operated by Transport Canada.
- CANUTEC's mission is to promote public safety by providing chemical emergency response advice and to support preparedness and response in the transportation of dangerous goods.
- CANUTEC's role is to provide advice during a dangerous goods incident but also to bring together all the players involved in the incident.
- Bilingual scientists work at CANUTEC on a 24/7 basis, are trained in emergency response and are ready to assist during a dangerous goods incident.
- When first responders arrive at the site of a dangerous goods incident, they should also contact CANUTEC for assistance.

CANUTEC

CANUTEC is the TDG emergency call center providing technical advice and emergency response services to first responders at an incident, 24/7, such as:

- Chemical, physical and toxicological properties of dangerous goods
- Possible product incompatibilities and stabilities
- Health hazards and first aid measures
- Fire, explosion, spill or leak mitigation techniques
- Remedial actions for the protection of life, property and the environment
- Isolation and evacuation distances
- Donning of personal protective equipment and their decontamination procedures
- Coordination of communications with consignor, government and medical specialists
- Quick access to a vast national and international resource network which includes the industrial sector, emergency response teams, private response contractors, mutual aid groups, federal and provincial response specialists and other emergency centres
- Participation with fire departments, public authorities and industry during their training exercises

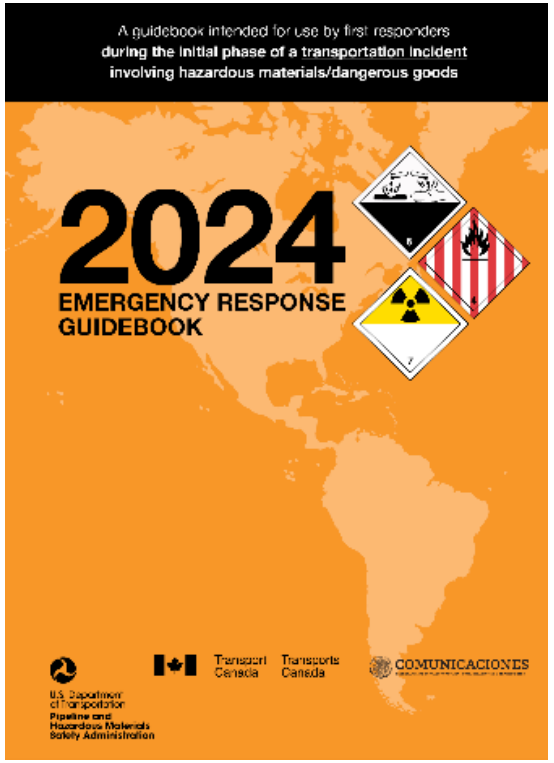
Emergency Response Guidebook (ERG)

When first responders arrive at the site of a dangerous goods incident, they should refer to the ERG to determine safe distances and secure the scene.

The ERG is developed by Transport Canada (CANUTEC), the United States, Mexico and Argentina. The guide also provides first responders with:

- Quick identification of the hazards of the materials involved in the dangerous goods incident
- Information on how to protect themselves and the general public

For more information on the ERG, consult the Emergency Response Guidebook - 2024.

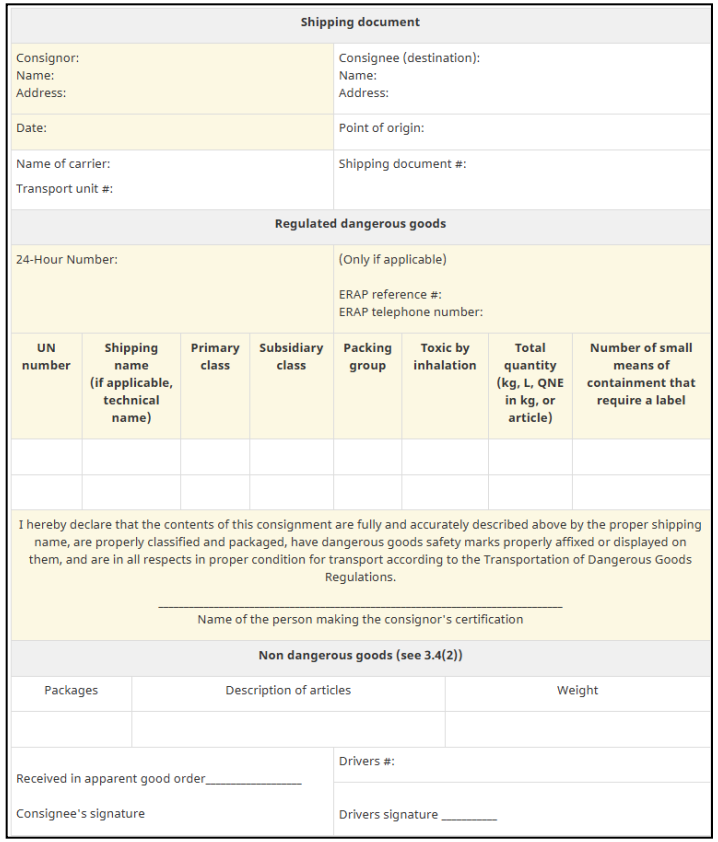


Shipping document

In addition to observations of the scene from a safe distance, if it can be safely retrieved, the shipping document is an important piece of information. It may be in the form of a paper or an electronic copy and it will include the following information:

- Shipping name of the dangerous goods and their classification
- Amount of dangerous goods being transported
- 24-Hour Number for technical information about the dangerous goods
- ERAP telephone number (if applicable) for technical and/or emergency response advice

For more information on shipping documents, consult Part 3 – Documentation of the TDG Regulations and the Shipping document.



Shipping document

Consignor: Name: Address:	Consignee (destination): Name: Address:
Date:	Point of origin:
Name of carrier: Transport unit #:	Shipping document #:

Regulated dangerous goods

24-Hour Number:	(Only if applicable) ERAP reference #: ERAP telephone number:

UN number	Shipping name (if applicable, technical name)	Primary class	Subsidiary class	Packing group	Toxic by inhalation	Total quantity (kg, L, QNE in kg, or article)	Number of small means of containment that require a label

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, are properly classified and packaged, have dangerous goods safety marks properly affixed or displayed on them, and are in all respects in proper condition for transport according to the Transportation of Dangerous Goods Regulations.

_____
Name of the person making the consignor's certification

Non dangerous goods (see 3.4(2))

Packages	Description of articles	Weight

Received in apparent good order_____ Consignee's signature	Drivers #: Drivers signature _____

Emergency Response Assistance Plan (ERAP)

- An ERAP describes what to do in the event of a release or anticipated release of dangerous goods while in transport.
- Only certain high-risk dangerous goods in specified quantities, means of containment or modes of transport need an ERAP.
- It describes the specialized response capabilities, equipment and procedures that will be used to support a response to incidents involving dangerous goods.

Person who requires an ERAP

- Persons who have ERAPs are involved in the transportation of certain dangerous goods above the quantity specified in the TDG Regulations.
- They are often producers, manufacturers or distributors of dangerous goods.

Purpose of an ERAP

- A person with an approved ERAP uses the plan to assist emergency responders.
- ERAPs may be used along with Emergency Response Plans (ERP) from other organizations (carriers, municipalities, communities and local or provincial authorities).
- An Incident Command System (ICS) ensures coordination between the ERAP and other emergency response plans, in order to:
  - Ensure public safety
  - Ensure that specialized assistance is available to local responders
  - Minimize consequences

Components of an ERAP

- ERAPs are approved by Transport Canada following the conditions indicated in Part 7 – Emergency Response Assistance Plan of the TDG Regulations.
- An ERAP addresses emergency preparedness, including personnel training, response exercises and equipment maintenance.
- Each plan is specific to certain:
  - Dangerous goods
  - Modes of transport (air, rail, road, marine)
  - Means of containment (containers or packaging)
  - Geographical areas in which the dangerous goods will be transported

ERAP implementation

- ERAPs are implemented to respond to a release or anticipated release of the dangerous goods that are part of the plan.
- The person who has the ERAP is contacted through the ERAP telephone number. Once reached, this person determines the actions they will take to respond to the release or anticipated release.

ERAP implementation

- Every ERAP must have an ERAP telephone number, where assistance should be provided as soon as possible after the initial request, 24/7.
- When an ERAP is required, this number is found on the shipping document.
- Persons calling the ERAP telephone number will be connected with someone who can:
  - Provide technical and/or emergency response advice promptly
  - Monitor the response
  - Send emergency response resources, if required

ERAP implementation

- Anyone can call the ERAP telephone number for assistance.
- Only the persons who have the ERAP are responsible for implementing it. Any other person or organization cannot implement an ERAP.
- When necessary to protect public safety, section 7.1 of the *Transportation of Dangerous Goods Act* (TDG Act) allows Transport Canada to:
  - Direct a person with an approved ERAP to implement their plan in order to respond to a release or anticipated release
  - Authorize a person with an approved ERAP to implement their plan, if it is unclear who is required to have an ERAP for the dangerous goods involved in an incident

Expectations with an approved ERAP

- Over the phone:
  - Technical or emergency response advice
  - Assistance provided as soon as possible after the initial request
- On site*:
  - Response personnel with appropriate equipment
  - Assistance provided may vary based on the nature, the severity of the incident or the assistance required

*When an ERAP is implemented, persons having the ERAP are required to exercise due diligence and respond within a reasonable time frame, given the site location, weather conditions, accessibility or other circumstances.

Reporting a dangerous goods incident

When a release or anticipated release of dangerous goods during transportation occurs, any person who has the charge, management or control of a means of containment shall call:

- Appropriate local authority (9-1-1)
- CANUTEC at 1-888-CAN-UTEC (226-8832), 613-996-6666 or *666 on a cellular phone (in Canada only)

If the shipment requires an ERAP, a call also must be made to the ERAP holder via the ERAP Telephone Number located on the shipping document.

Part 8 – Reporting Requirements of the TDG Regulations specifies the requirements when a release or anticipated release occurs.

For more information, consult the Guide for reporting dangerous goods incidents.

Remedial Measures Specialist (RMS)

- A designated TDG inspector under the TDG Act.
- A scientist trained and specialized in emergency response.
- An ERAP specialist who can attend the site of an incident involving dangerous goods.

Role of the RMS

- Review ERAP applications and evaluate if the plan can be implemented and will be effective at responding to an actual or anticipated release of dangerous goods that endangers or could endanger public safety.
- Conduct oversight activities such as site assessments and exercise attendance to confirm the response capabilities identified in the ERAP.
- Promote awareness of the ERAP program by participating in and presenting at various events across the country.

Remedial Measures Specialist (RMS)

Role of the RMS at a dangerous goods incident site

- ✓ Monitor the implementation of an ERAP to ensure its effectiveness – timely, appropriate, safe and coordinated (TASC)
- ✓ Provide advice on response capabilities, remedial measures, safe practices and chemical-specific knowledge to the Incident Commander (IC)
- ✓ Monitor and assess industry's response (carriers, consignors/shippers, person with an approved ERAP or emergency response contractors)
- ✓ Direct or stop actions, if required, to protect public safety and personnel on site
- ✓ Communicate relevant incident information to Transport Canada through CANUTEC

Incident Command System (ICS)

The Incident Command System (ICS) is a standardized approach for managing all types of emergencies.

ICS

- Provides a clear organizational structure for personnel, equipment, and communications.
- Promotes a collaborative work environment by uniting all responding agencies under one command structure.
- Adapts to the size of an incident, so it can be scaled up or down and still be effective.
- Uses standardized terminology in clear and concise language ensuring all responders understand and follow the same protocols.

Incident Command System (ICS)

Incident Commander

The Incident Commander (IC) is the person in charge at the incident site and is appointed by the Authority Having Jurisdiction (AHJ).

The Incident Commander is responsible for:

- Establishing command
- Ensuring responder safety
- Assessing incident priorities
- Determining operational objectives
- Developing and implementing an incident action plan
- Developing an organizational structure
- Managing incident resources
- Coordinating the activities of outside agencies

Incident Command System (ICS)

As incidents can involve many different participating agencies, having an ICS in place will help first responders to deliver a coordinated response to complex and/or large-scale incidents by:

- Recognizing one Incident Commander (IC) assigned by the Authority Having Jurisdiction (AHJ)
- Operating in a unified command structure
- Clearly understanding respective roles and responsibilities
- Prioritizing public safety over enforcement operations until such time as public safety is secure
- Planning and exercising working in ICS, which helps build trust and improve networking ahead of a crisis

Protective Direction (PD)

A Protective Direction (PD) is issued under Section 32(1) of the TDG Act to cease an activity or to conduct other activities to reduce any danger to public safety.

PD 36

- Directs any company who transports dangerous goods through a jurisdiction (municipality) **by rail**, to provide the municipality's Emergency Planning Official (EPO) with information on the **nature** and **volume** of dangerous goods it transports through the municipality.
- Directs Canadian Class I Rail Carriers to publish an annual report containing dangerous goods information on their website.
- Requires railway companies to provide in writing to CANUTEC, contact information of the person who will liaise with a municipality's EPO.

Protective Direction 36

Benefits for municipalities

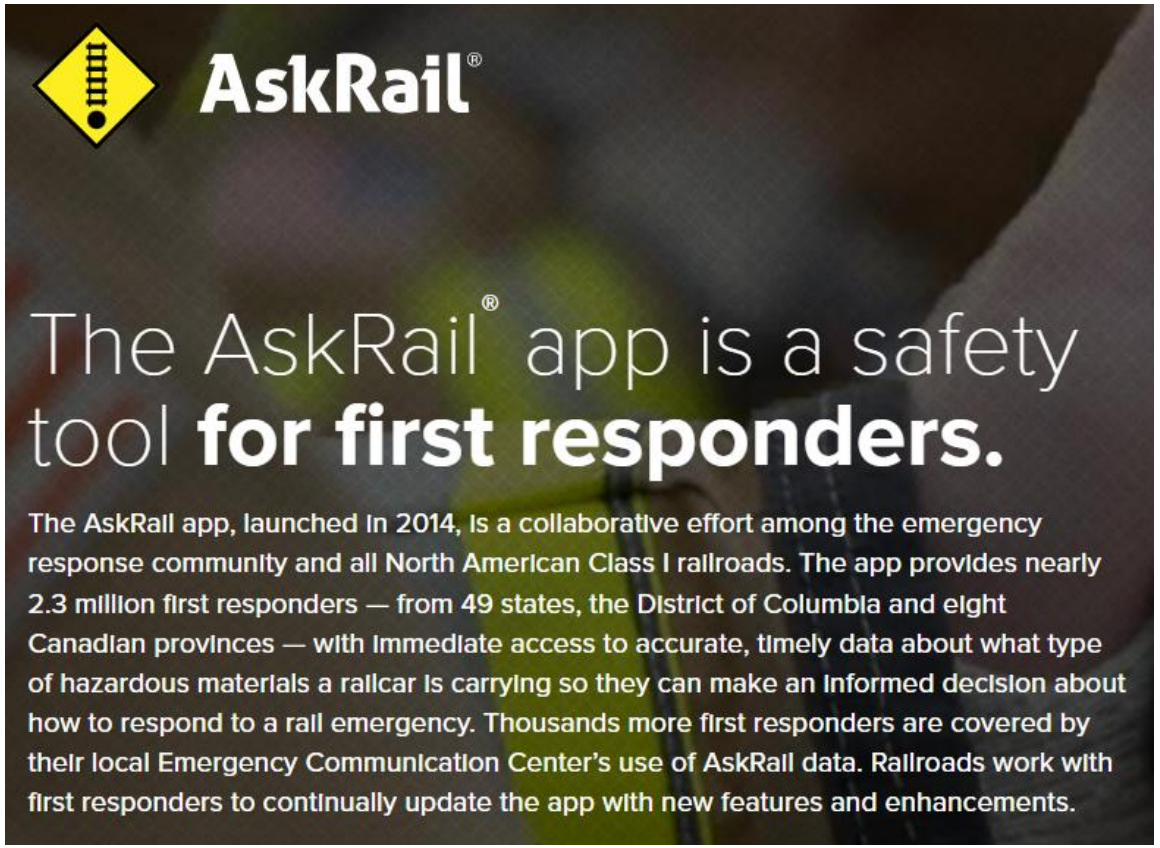
- Raise awareness on the dangerous goods being transported **by rail** within their boundaries.
- Helps municipalities plan and prepare their Emergency Response Plan (ERP) accordingly.

Transport Canada strongly encourages each municipal EPO to register with CANUTEC in order to receive information on the **nature** and **volume** of dangerous goods being transported by rail through their municipality.

Additional resource: AskRail®

The AskRail® app is a safety tool that gives first responders immediate access to accurate, timely data about railcar contents so they can make informed decisions in the event of a rail emergency.

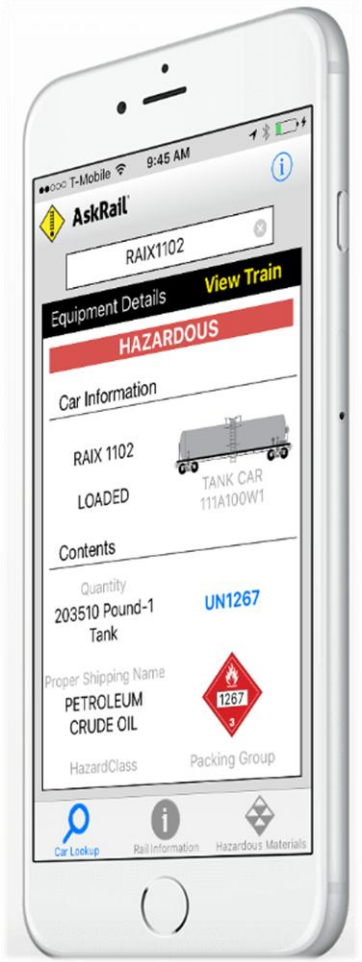
- Use a railcar ID search to see whether a railcar on a train is carrying dangerous goods.
- View the contents of the entire train.
- View emergency contact information for all Class I railroads (CN and CPKC) and available shortlines.



Additional resource: AskRail®

Key points

- Is a collaborative effort among all North American Class I railroads, the Association of American Railroads, Railinc Corp. and the Transportation Technology Center, Inc.
- All North American Class I railroads are using the app.
- Provides single-car information on participating regional railroads.
- Map feature provides isolation zone and points of interest such as railroad milepost and grade crossing locations.
- Available in English and French in the U.S., Canada and Mexico.



Additional resource: AskRail®

Request the application

For security reasons, only qualified emergency responders who have completed rail emergency training sponsored by one of the Class I railroads or at the Security and Emergency Response Training Center (SERTC) can download and use the AskRail® app. In addition, railroads can offer the app to known emergency responders along their routes.

Visit their website: AskRail ®

Railway Association of Canada (RAC): AskRail™ | Railway Association of Canada

Best practices

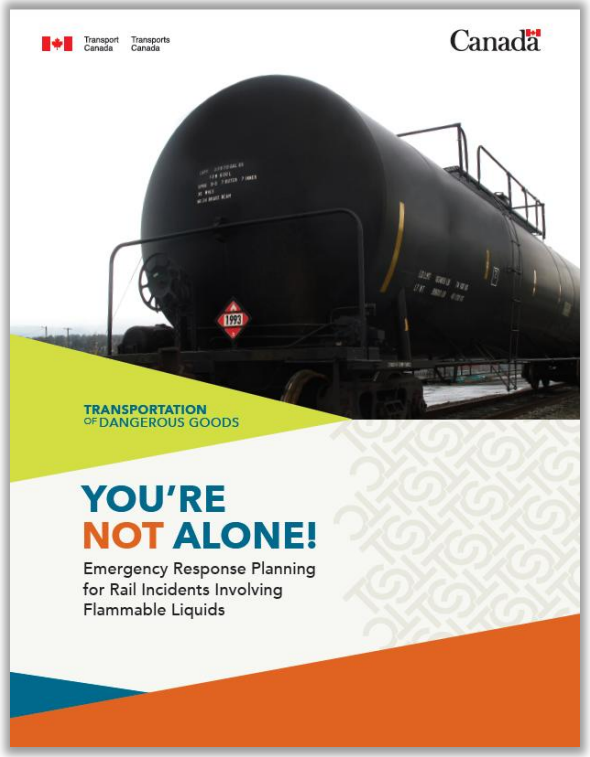
To better prepare for dangerous goods incidents in transport, municipalities should:

- Review their Emergency Response Plan (ERP) template to include response to dangerous goods incidents
- Take advantage of PD 36 during the preparation of their ERP to receive information on dangerous goods transported by rail
- Identify industries in their cities and dangerous goods transiting through them
- Provide Transport Canada Aide-Memoires to their first responders
- Identify the dangerous goods their first responders are trained and equipped to respond to and those dangerous goods to which they would require assistance
- Test their ERP by organizing training and exercises, including participants from other organizations to evaluate interoperability
- Register for the online TDG Newsletter for valuable information on the transportation of dangerous goods

You’re not alone!

Emergency response planning for rail incidents involving flammable liquids

- Assist local communities to plan and prepare for potential rail incidents involving flammable liquids.
- Designed to be used as a template that can be tailored to address identified hazards as they pertain to flammable liquids being transported by rail through or near the community as a component of a local emergency response plan.
- Offer tools for police, rescue, medical and firefighting operations to combat the effects of a major rail incident occurring within a community.

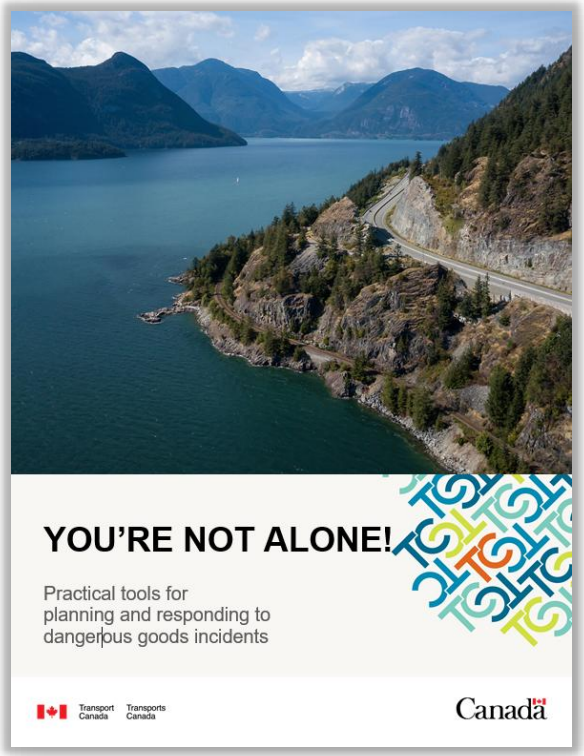


You’re Not Alone! - Emergency Response Planning For Rail Incidents Involving Flammable Liquids

You’re not alone!

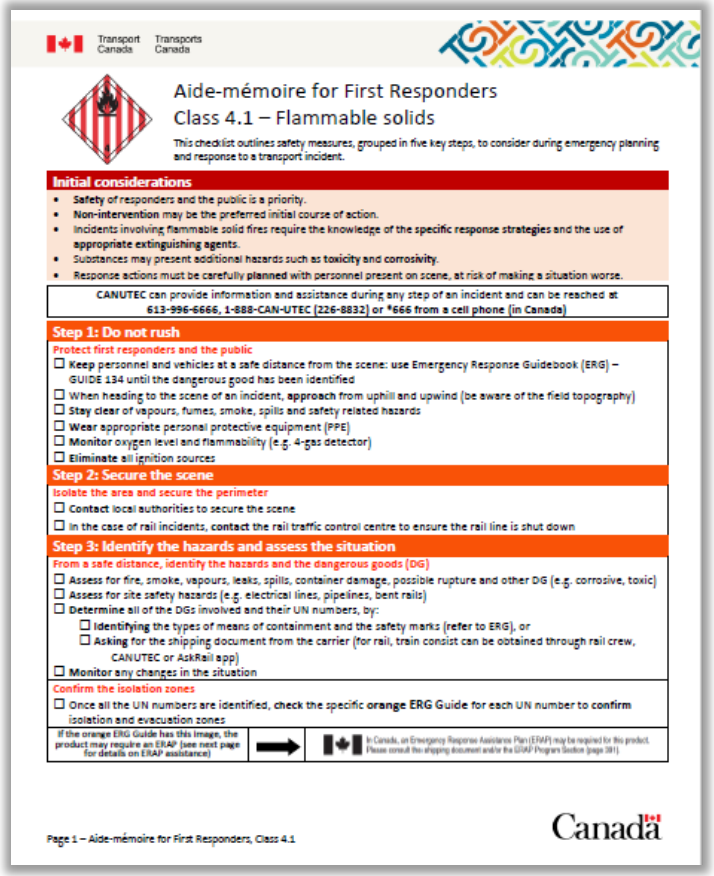
Practical tools for planning and responding to dangerous goods incidents

- Aide-mémoire: 15 classes and divisions of dangerous goods.
- Dangerous goods incident worksheet: To take notes when using the Aide-mémoire, step by step.
- Dangerous goods incident pre-plan worksheet.



You’re not alone! – Practical tools for planning and responding to dangerous goods incidents

You’re not alone! – Aide-mémoire



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Aide-mémoire for First Responders
Class 4.1 – Flammable solids

This checklist outlines safety measures, grouped in five key steps, to consider during emergency planning and response to a transport incident.

Initial considerations

- **Safety** of responders and the public is a priority.
- **Non-intervention** may be the preferred initial course of action.
- Incidents involving flammable solid fires require the knowledge of the specific **response strategies** and the use of **appropriate extinguishing agents**.
- Substances may present additional hazards such as **toxicity** and **corrosivity**.
- Response actions must be carefully **planned** with personnel present on scene, at risk of making a situation worse.

CANUTEC can provide information and assistance during any step of an incident and can be reached at 613-996-6666, 1-888-CAN-UTEC (226-8832) or *666 from a cell phone (in Canada)

Step 1: Do not rush

Protect first responders and the public

- ☐ **Keep** personnel and vehicles at a safe distance from the scene: use Emergency Response Guidebook (ERG) – GUIDE 134 until the dangerous good has been identified
- ☐ When heading to the scene of an incident, **approach** from uphill and upwind (be aware of the field topography)
- ☐ **Stay clear** of vapours, fumes, smoke, spills and safety related hazards
- ☐ **Wear** appropriate personal protective equipment (PPE)
- ☐ **Monitor** oxygen level and flammability (e.g. 4-gas detector)
- ☐ **Eliminate** all ignition sources

Step 2: Secure the scene

Isolate the area and secure the perimeter

- ☐ **Contact** local authorities to secure the scene
- ☐ In the case of rail incidents, **contact** the rail traffic control centre to ensure the rail line is shut down

Step 3: Identify the hazards and assess the situation

From a safe distance, identify the hazards and the dangerous goods (DG)

- ☐ Assess for fire, smoke, vapours, leaks, spills, container damage, possible rupture and other DG (e.g. corrosive, toxic)
- ☐ Assess for site safety hazards (e.g. electrical lines, pipelines, bent rails)
- ☐ **Determine** all of the DGs involved and their UN numbers, by:
  - ☐ **Identifying** the types of means of containment and the safety marks (refer to ERG), or
  - ☐ **Asking** for the shipping document from the carrier (for rail, train consist can be obtained through rail crew, CANUTEC or AskRail app)
- ☐ **Monitor** any changes in the situation

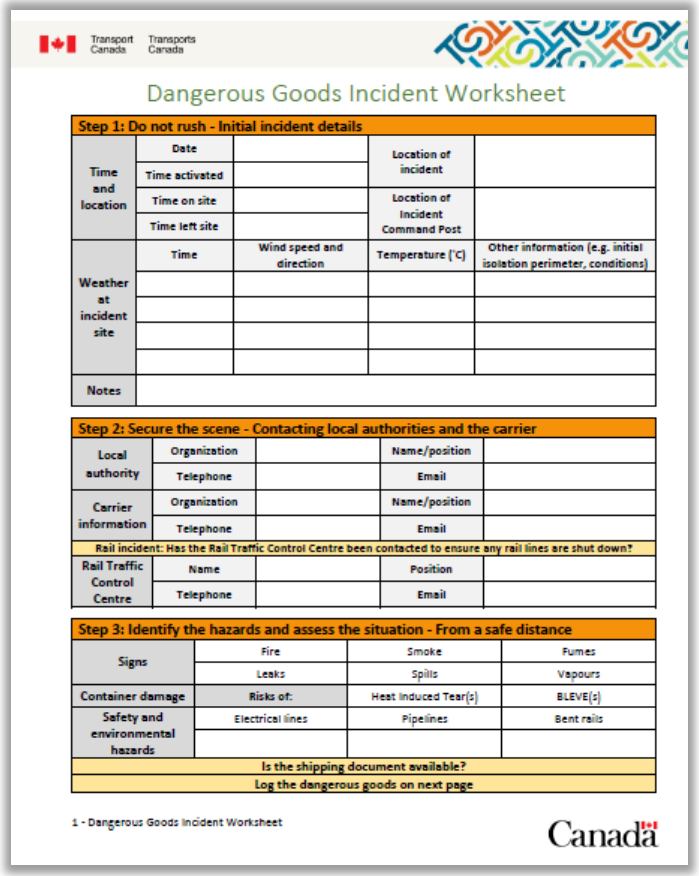
Confirm the isolation zones

- ☐ Once all the UN numbers are identified, **check** the specific **orange ERG Guide** for each UN number to **confirm** isolation and evacuation zones

If the orange ERG Guide has this image, the product may require an ERAP (see next page for details on ERAP assistance) → In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping document and/or the ERAP Program Section (page 391)

Page 1 – Aide-mémoire for First Responders, Class 4.1

Canada



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Dangerous Goods Incident Worksheet

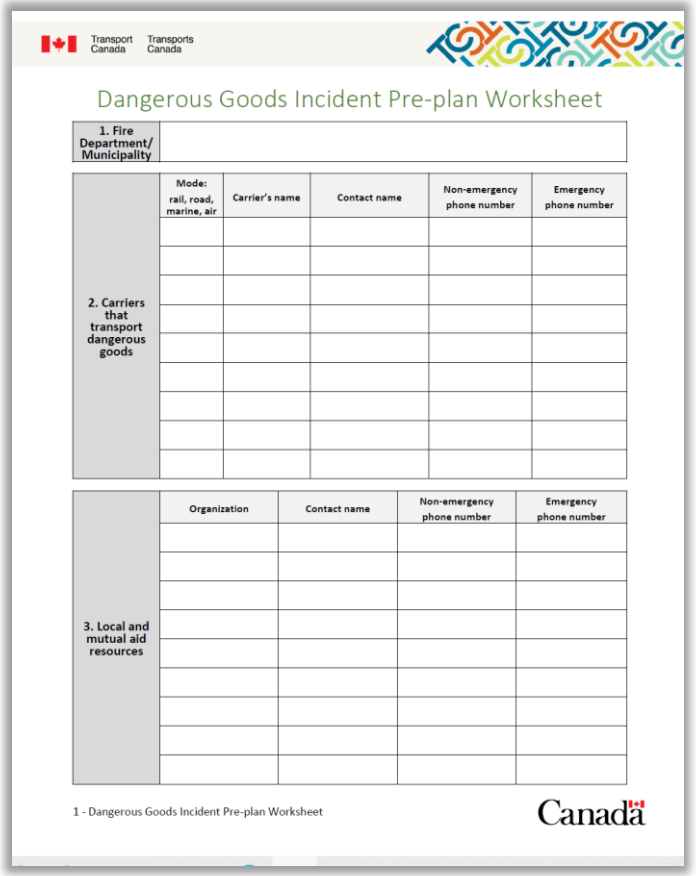
Step 1: Do not rush - Initial incident details				
Time and location	Date		Location of incident	
	Time activated			
	Time on site		Location of Incident Command Post	
	Time left site			
Weather at incident site	Time	Wind speed and direction	Temperature (°C)	Other information (e.g. initial isolation perimeter, conditions)
Notes				

Step 2: Secure the scene - Contacting local authorities and the carrier				
Local authority	Organization		Name/position	
	Telephone		Email	
Carrier information	Organization		Name/position	
	Telephone		Email	
Rail incident: Has the Rail Traffic Control Centre been contacted to ensure any rail lines are shut down?				
Rail Traffic Control Centre	Name		Position	
	Telephone		Email	

Step 3: Identify the hazards and assess the situation - From a safe distance			
Signs	Fire	Smoke	Fumes
	Leaks	Spills	Vapours
Container damage	Risks of:	Heat induced Tear(s)	BLEVE(s)
Safety and environmental hazards	Electrical lines	Pipelines	Bent rails
Is the shipping document available?			
Log the dangerous goods on next page			

1 - Dangerous Goods Incident Worksheet

Canada



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Dangerous Goods Incident Pre-plan Worksheet

1. Fire Department/ Municipality	

2. Carriers that transport dangerous goods	Mode: rail, road, marine, air	Carrier's name	Contact name	Non-emergency phone number	Emergency phone number

3. Local and mutual aid resources	Organization	Contact name	Non-emergency phone number	Emergency phone number

1 - Dangerous Goods Incident Pre-plan Worksheet

Canada

You’re not alone! – Aide-mémoire

Transport Canada contact information

CANUTEC

For emergencies (24/7) dial:

- **1 888 CAN-UTEC (226-8832)**
- **(613) 996-6666 or**
- ***666 on a cellular phone (in Canada only)**

Website: CANUTEC

Transport Canada contact information

General TDG regulatory questions: TDG-TMD@tc.gc.ca

Response Operations (ERAP Program): TC.ChiefResponseOperations-ChefOperationsDeReponse.TC@tc.gc.ca

TDG marine: TC.TDGMarineInquiries-DemandesDeRenseignementsMaritimeTMD.TC@tc.gc.ca

TDG aviation: TC.TDGAviationInquiries-DemandesDeRenseignementsAviationTMD.TC@tc.gc.ca

TDG road and rail:

Region	Telephone number	Email address
Atlantic	1-866-814-1477	TDG-TMDAtlantic@tc.gc.ca
Quebec	1-514-633-3400	TMD-TDG.Quebec@tc.gc.ca
Ontario	1-416-973-1868	TDG-TMDOntario@tc.gc.ca
Prairie & Northern	1-888-463-0521	PNRTDG-TMDRPN@tc.gc.ca
Pacific	1-604-666-2955	TDGPacific-TMDPacifique@tc.gc.ca

If you wish to have an awareness presentation on these topics, contact the TDG Safety Awareness Team:
TC.TDGSafetyAwareness-SensibilisationalasecuriteduTMD.TC@tc.gc.ca

Related links

- *Transportation of Dangerous Goods Act, 1992*
- *Transportation of Dangerous Goods Regulations*
- Transportation of dangerous goods in Canada
- ERAP program
- CANUTEC
- Safety awareness materials and FAQ
- Enhancing the security of the transportation of dangerous goods by rail