TABLE OF CONTENTS

Shipping Documents (Papers) Inside front cover
How to Use this Guidebook
Local Emergency Telephone Numbers
Safety Precautions
Notification and Request for Technical Information
Hazard Classification System
Introduction to the Table of Markings, Labels and Placards
Table of Markings, Labels and Placards and Initial Response Guide to Use On-scene
Rail Car Identification Chart
Road Trailer Identification Chart
Globally Harmonized System of Classification and Labeling of Chemicals (GHS) 1
Hazard Identification Numbers Displayed on Some Intermodal Containers
Pipeline Transportation
ID Number Index
Name of Material Index
Guides
Introduction to Green Tables
Protective Action Decision Factors to Consider
Protective Actions
Background on Table 1 – Initial Isolation and Protective Action Distances 29
Table 1 - Initial Isolation and Protective Action Distances
Table 2 - Water-Reactive Materials which Produce Toxic Gases
Table 3 - Initial Isolation and Protective Action Distances for Large Spills for Different Quantities of Six Common TIH (PIH in the US) Gases
ERG 2016 User's Guide
Guidebook Contents
Toxic Inhalation Hazard (TIH) materials
Isolation and Evacuation Distances
Protective Clothing
Fire and Spill Control
BLEVE - Safety Precautions
Criminal/Terrorist use of Chemical/Biological/Radiological Agents
Improvised Explosive Device Safe Stand Off Distance
Glossary
Canada and United States National Response Centers
Emergency Response Assistance Plans (ERAP)
Emergency Response Telephone Numbers

SAFETY PRECAUTIONS

RESIST RUSHING IN!

APPROACH CAUTIOUSLY FROM UPWIND, UPHILL OR UPSTREAM:

- Stay clear of Vapor, Fumes, Smoke and Spills
- Keep vehicle at a safe distance from the scene

SECURE THE SCENE:

Isolate the area and protect yourself and others

IDENTIFY THE HAZARDS USING ANY OF THE FOLLOWING:

- Placards
- Container labels
- Shipping documents
- Rail Car and Road Trailer Identification Chart
- Material Safety Data Sheets (MSDS)
- Knowledge of persons on scene
- Consult applicable guide page

ASSESS THE SITUATION:

- Is there a fire, a spill or a leak?
- What are the weather conditions?
- What is the terrain like?
- Who/what is at risk: people, property or the environment?
- What actions should be taken evacuation, shelter in-place or dike?
- What resources (human and equipment) are required?
- What can be done immediately?

OBTAIN HELP:

 Advise your headquarters to notify responsible agencies and call for assistance from qualified personnel

RESPOND:

- Enter only when wearing appropriate protective gear
- Rescue attempts and protecting property must be weighed against you becoming part of the problem
- Establish a command post and lines of communication
- Continually reassess the situation and modify response accordingly
- Consider safety of people in the immediate area first, including your own safety

ABOVE ALL: Do not assume that gases or vapors are harmless because of lack of a smell – odorless gases or vapors may be harmful. Use **CAUTION** when handling empty containers because they may still present hazards until they are cleaned and purged of all residues.

NOTIFICATION AND REQUEST FOR TECHNICAL INFORMATION

Follow the steps outlined in your organization's standard operating procedures and/or local emergency response plan for obtaining qualified assistance. Generally, the notification sequence and requests for technical information beyond what is available in this guidebook should occur in the following order:

1. NOTIFY YOUR ORGANIZATION/AGENCY

- Based on information provided, this will set in motion a series of events
- Actions may range from dispatching additional trained personnel to the scene, to activating the local emergency response plan
- Ensure that local fire and police departments have been notified

2. CALL THE EMERGENCY RESPONSE TELEPHONE NUMBER ON THE SHIPPING DOCUMENT

 If shipping paper is not available, use guidance under next section "NATIONAL ASSISTANCE"

3. NATIONAL ASSISTANCE

- Contact the appropriate emergency response agency listed on the inside back cover of this guidebook
- Provide as much information about the hazardous material and the nature of the incident
- The agency will provide immediate advice on handling the early stages of the incident
- The agency will also contact the shipper or manufacturer of the material for more detailed information if necessary
- The agency will request on-scene assistance when necessary

4. PROVIDE AS MUCH OF THE FOLLOWING INFORMATION AS POSSIBLE:

- Your name, call-back telephone number, fax number
- Location and nature of problem (spill, fire, etc.)
- · Name and identification number of material(s) involved
- Shipper/consignee/point-of-origin
- Carrier name, rail car or truck number
- Container type and size
- Quantity of material transported/released
- Local conditions (weather, terrain)
- Proximity to schools, hospitals, waterways, etc.
- Injuries and exposures
- · Local emergency services that have been notified

HAZARD CLASSIFICATION SYSTEM

The hazard class of dangerous goods is indicated either by its class (or division) number or name. Placards are used to identify the class or division of a material. The hazard class or division number must be displayed in the lower corner of a placard and is required for both primary and subsidiary hazard classes and divisions, if applicable. For other than Class 7 placards, text indicating a hazard (for example, "CORROSIVE") is not required. Text is shown only in the U.S. The hazard class or division number and subsidiary hazard classes or division numbers placed in parentheses (when applicable), must appear on the shipping document after each proper shipping name.

Class 1 -	Explosives		
	Division 1.1	Explosives which have a mass explosion hazard	
	Division 1.2	Explosives which have a projection hazard but not a mass	
		explosion hazard	
	Division 1.3	Explosives which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard	
	Division 1.4	Explosives which present no significant blast hazard	
	Division 1.5	Very insensitive explosives with a mass explosion hazard	
	Division 1.6	Extremely insensitive articles which do not have a mass explosion hazard	
Class 2 -	Gases		
	Division 2.1	Flammable gases	
	Division 2.2	Non-flammable, non-toxic* gases	
	Division 2.3	Toxic* gases	
Class 3 -	Flammable liquids (and Combustible liquids [U.S.])		
Class 4 -	Flammable solids; Substances liable to spontaneous combustion; Substances which, on contact with water, emit flammable gases		
	Division 4.1	Flammable solids, self-reactive substances and solid desensitized explosives	
	Division 4.2	Substances liable to spontaneous combustion	
	Division 4.3	Substances which in contact with water emit flammable gases	
Class 5 -	Oxidizing substances and Organic peroxides		
	Division 5.1	Oxidizing substances	
	Division 5.2	Organic peroxides	
Class 6 -	Toxic* substances and Infectious substances		
Class o -	TOXIC SUDStance	oo ana miiootioao cabctaniooc	
Class 0 -	Division 6.1	Toxic*substances	
Class 6 -			

Miscellaneous dangerous goods/hazardous materials and articles

Corrosive substances

Class 8 -

Class 9 -

^{*} The words "poison" or "poisonous" are synonymous with the word "toxic".

INTRODUCTION TO THE TABLE OF MARKINGS, LABELS AND PLACARDS

USE THIS TABLE ONLY WHEN THE ID NUMBER OR PROPER SHIPPING NAME IS NOT AVAILABLE.

The next two pages display the placards used on transport vehicles carrying dangerous goods with the applicable reference GUIDE circled. Follow these steps:

- 1. Approach scene from upwind, uphill or upstream at a safe distance to safely identify and/or read the placard or orange panel. Use binoculars if available.
- 2. Match the vehicle placard(s) with one of the placards displayed on the next two pages.
- 3. Consult the circled guide number associated with the placard. Use that guide information for now. For example:
 - Use GUIDE 127 for a FLAMMABLE (Class 3) placard



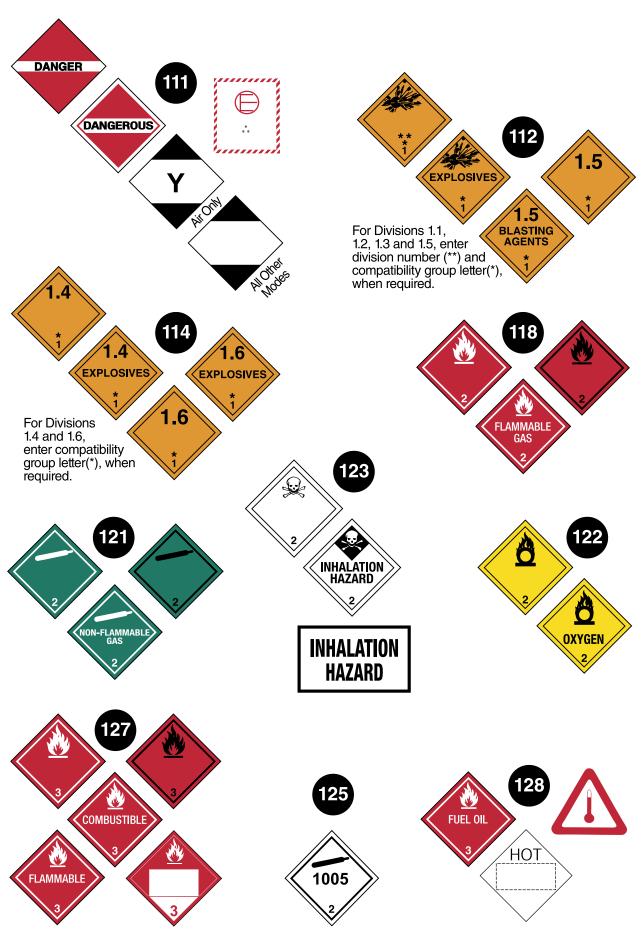
• Use GUIDE 153 for a CORROSIVE (Class 8) placard



- Use GUIDE 111 when the DANGER/DANGEROUS placard is displayed or the nature of the spilled, leaking or burning material is not known. Also use this GUIDE when the presence of dangerous goods is suspected but no placards can be seen.
- If multiple placards point to more than one guide, initially use the most conservative guide (i.e., the guide requiring the greatest degree of protective actions).
- 4. Guides associated with the placards provide the most significant risk and/or hazard information.
- 5. When specific information, such as ID number or proper shipping name, becomes available, the more specific Guide recommended for that material must be consulted.
- 6. A single asterisk (*) on orange placards represent an explosive's compatibility group letter. The asterisk must be replaced with the appropriate compatibility group letter. Refer to the Glossary (page 376).
- 7. Double asterisks (**) on orange placards represent the division of the explosive. The double asterisks must be replaced with the appropriate division number.

TABLE OF MARKINGS, LABELS, AND PLACARDS

USE THIS TABLE ONLY IF MATERIALS CANNOT BE SPECIFICALLY IDENTIFIED BY



Page 8

AND INITIAL RESPONSE GUIDE TO USE ON-SCENE

USING THE SHIPPING DOCUMENT, NUMBERED PLACARD, OR ORANGE PANEL NUMBER

