



U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**



SUMMARY OF CHANGES: ERG2024

*Major changes from the 2020 edition of the Emergency Response
Guidebook (ERG)*



Disclaimer: This list is not exhaustive and should not be treated as a replacement for the ERG. In an emergency, be sure to consult the ERG2024 for accurate response guidance.

We have compiled the most important changes from ERG2020 to ERG2024, organized by the color of the corresponding section in the guidebook—White, Yellow/Blue, Orange, and Green. In addition to the changes listed below, all sections have undergone minor editorial changes for accuracy and consistency.

In this edition, we have added QR codes to the back cover of the hard copy version of ERG2024, offering quick access to critical incident reporting information for users on the scene of an emergency.

WHITE SECTION

FRONT MATERIAL

- Updated the Table of Markings, Labels, and Placards to remove (2) obsolete designs: triangular Marine Pollutant marking and yellow Division 5.2 placard.
- Updated the Road Trailer Identification Chart to include new descriptive text on some of the configurations/types.
- Updated the Rail Car Identification Chart by adding a cryogenic railcar.

MIDDLE MATERIAL

- Added a table to help in deciding whether Evacuation or Shelter-in-Place is the best option.

END MATERIAL

- Added Liquid Spill Control methods section, including guidance on the types and uses of absorbent materials.
- Added Considerations for Lithium Battery and Electric Vehicle (EV) Fires, including identification of Damaged, Defective or Recalled (DDR) lithium batteries.
- Removed Chemical and Biological Warfare Agents considerations.
- Added a new Chemical and Biological Warfare Agents section in the Criminal or Terrorist Use of Chemical, Biological and Radiological Agents section. All Chemical and Biological Warfare Agents considerations that were found throughout the ERG are now collected in this new section. Chemical Warfare Agents (CWA) are now listed based on their type and symptoms, not by their name. This new section includes:
 - Biological Warfare Agents table
 - Chemical Warfare Agents table
 - Initial Isolation and Protective Action Distances for CWA.
- Expanded glossary, includes:
 - Air-reactive
 - Combustible
 - Control temperature
 - Criticality Safety Index (CSI)
 - Evacuate
 - Isolate
 - Polar
 - Self-heating material
 - Self-reactive material
 - Spontaneously combustible material
 - Thermal runaway
 - Water insoluble
 - Water soluble
 - Clarified differentiation of Solid or Straight Stream.

YELLOW AND BLUE SECTIONS

Added eleven (11) new UN numbers listed in the UN Model Recommendations on the Transport of Dangerous Goods (up to the 23rd revised edition) and assigned Orange guides:

ID No.	Guide No.
UN3550	151
UN3551	147
UN3552	147
UN3553	116
UN3554	172
UN3555	113
UN3556	147
UN3557	138
UN3558	147
UN3559	171
UN3560	153

Re-evaluated materials to make sure that they are assigned to the appropriate Orange guide. Moved nineteen (19) materials to a different guide:

ID No.	ERG2020	ERG2024
UN1541	155	156
UN1545	155	131
UN1570	152	151
UN1728	155	156
UN1815	132	155
UN1866	127	128
UN2206	155	156
UN2285	156	155
UN2295	155	131
UN2299	155	156
UN2353	132	155
UN2395	132	155
UN2474	157	156
UN2643	155	153
UN2751	155	156
UN2947	155	127
UN3172	153	152
UN3293	152	153
UN3462	153	152

YELLOW AND BLUE SECTIONS (CONT'D)

- Removed the following UN numbers that are obsolete:
 - **UN1014** - Carbon dioxide and oxygen mixture, compressed
 - **UN1015** - Carbon dioxide and nitrous oxide mixture
 - **UN1366** - Diethylzinc
 - **UN1370** - Dimethylzinc
 - **UN2005** - Magnesium diphenyl
 - **UN3051** - Aluminum alkyls
 - **UN3053** - Magnesium alkyls
 - **UN3076** - Aluminum alkyl hydrides.
- Removed the Chemical Warfare Agents from the Yellow and Blue Sections (incorporated into the Criminal or Terrorist Use of Chemical, Biological and Radiological Agents section).
- Added the polymerization hazard (**P**) to UN3302 - 2-Dimethylaminoethyl acrylate, Stabilized.



ORANGE SECTION

- Moved the general first aid recommendations to a new section called “General First Aid” (found before Guide 111)—kept only material-specific recommendations in Orange Guide pages.
- Added the following recommendations in the Guides:

Guide No.	CHANGE
115	Added caution statement for liquefied natural gas (LNG) released on/near water, product may vaporize explosively.
118, 136	Added reference to <i>Table 1</i> for highlighted materials.
128, 130	Added alcohol-resistant foam to fire response guidance.
131	Added Potential Health Hazard: "Methyl chloroacetate (UN2295) is an eye irritant/lachrymator (causes flow of tears)."
138, 159	Removed reference to <i>Table 1</i> .
140	Expanded guidance for ammonium nitrate products.
147	Revised firefighting recommendations for lithium-ion battery fires, and added guidance for electric vehicle (EV) fires. Now includes sodium-ion batteries.
151	Added response guidance for spills of solid materials.
153	Added Potential Health Hazard: "Methyl bromoacetate (UN2643) is an eye irritant/lachrymator (causes flow of tears)."
156	Additional Response guidance: "For Acetyl bromide (UN1716), use CO ₂ or dry chemical only."
166	Added Potential Health Hazard: "Toxic; may be fatal if inhaled, ingested, or absorbed through skin." Revised Large Fire response guidance.
171	Added caution statement for delayed activation and projectile risk of Safety devices (UN3268) and Fire suppressant dispersing devices (UN3559).

GREEN SECTION

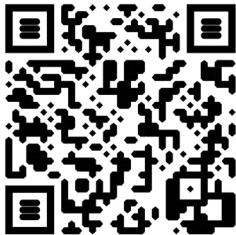
- Table 1:
 - Chemical warfare agents removed, incorporated into the Criminal or Terrorist Use of Chemical, Biological and Radiological Agents section
 - Revised the distances
 - No new entries resulting from new UN numbers.
- Table 3:
 - Revised distances.

ERG2024 MOBILE APPS

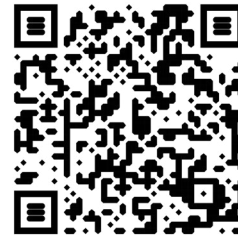
The ERG2024 is also available as a mobile application, for both iOS and Android devices, in English, French, and Spanish!

NEW TO THE ERG APP?

To download the app, use the QR code (below) which corresponds to your device, or you can locate the app by name in either the App Store (iOS) or Google Play (Android).



ERG FOR iOS



ERG2024 FOR ANDROID

ALREADY HAVE THE APP?

If you have already downloaded ERG for iOS or ERG2020 for Android, published by the Pipeline and Hazardous Materials Safety Administration (PHMSA), no action needed! Your app will update automatically to ERG2024.

For more ERG resources, visit PHMSA's Emergency Response Guidebook (ERG) webpage:
<https://www.phmsa.dot.gov/training/hazmat/erg/emergency-response-guidebook-erg>

First responders, we want your feedback! Submit your name, organization, contact information, and comments to ERGComments@dot.gov



For additional information contact:
The Hazardous Materials Info Center

1-800-HMR-4922

(1-800-467-4922)

Email: infocntr@dot.gov

**Pipeline and Hazardous Materials
Safety Administration**

Outreach, Training, and Grants Division

East Building, 2nd Floor

1200 New Jersey Ave., SE

Washington, DC 20590

Email: training@dot.gov

202-366-4900

202-366-7342 (Fax)



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