

FOGMAKER

I N T E R N A T I O N A L A B

Automatic Fire Suppression Systems for ADR/UNECE R181



Pure Performance with Triple Action

What is R181 and why is it important?

A New Era of Fire Safety for ADR Vehicles

UN Regulation No 181 establishes requirements for automatic engine fire-suppression systems on vehicles transporting dangerous goods. The regulation is designed to reduce the risk of BLEVE (Boiling Liquid Evaporating Vapor Explosion), or other catastrophic tank failure following a vehicle fire. R181 covers both the fire suppression system itself and its installation in the vehicle.

A fire in the engine compartment of an ADR vehicle can become far more than an engine fire. If the heat reaches a tank containing dangerous goods, pressure can rise rapidly and in the worst-case scenario, result in a violent tank rupture accompanied by the rapid expansion and ignition of the released vapor.

The new requirement will be mandatory on new vehicles manufactured from January 1, 2029, and is encouraged from October 21, 2026. It applies to **FL Vehicles carrying flammable gases, flammable liquids, and EX/III vehicles**. That is, ADR classes:

- Class 1, EXIII Vehicles
- Class 2, Flammable Gases
- Class 3, Flammable Liquids

R181 will be similar to UNECE R107 already in place for buses, with a few additions:

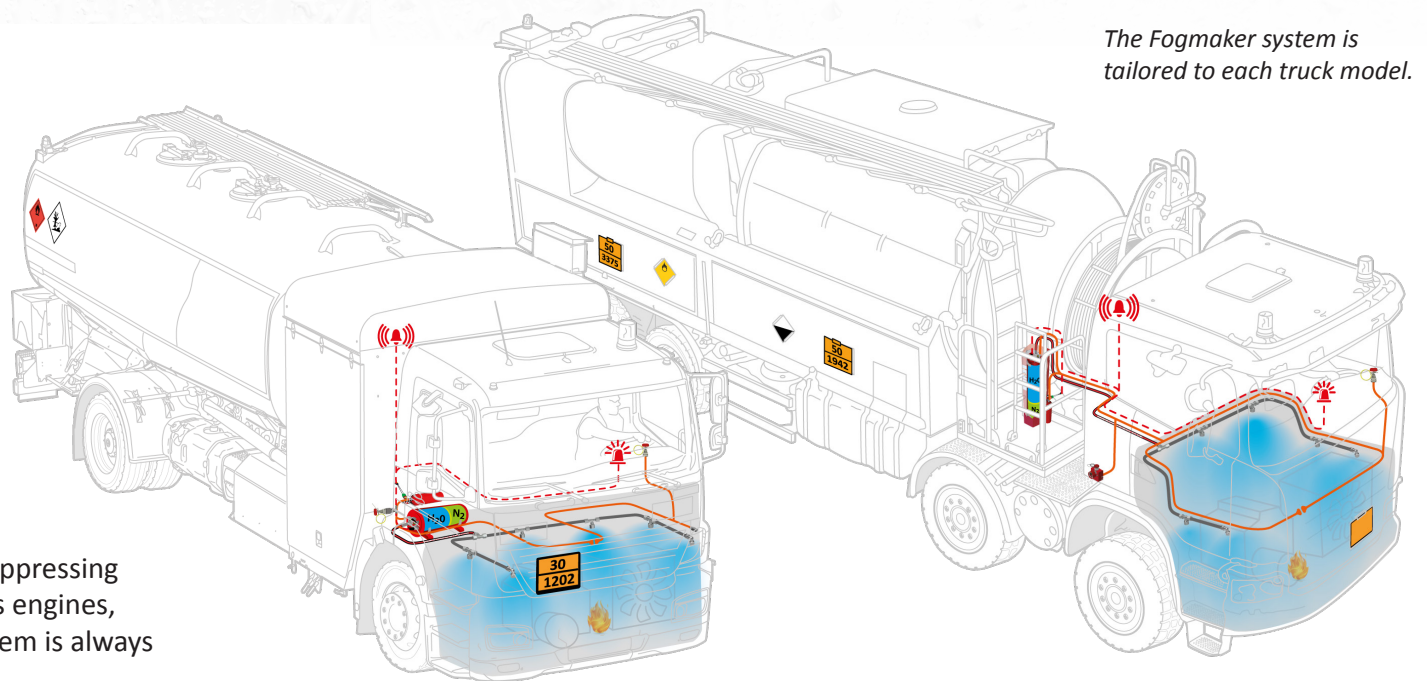
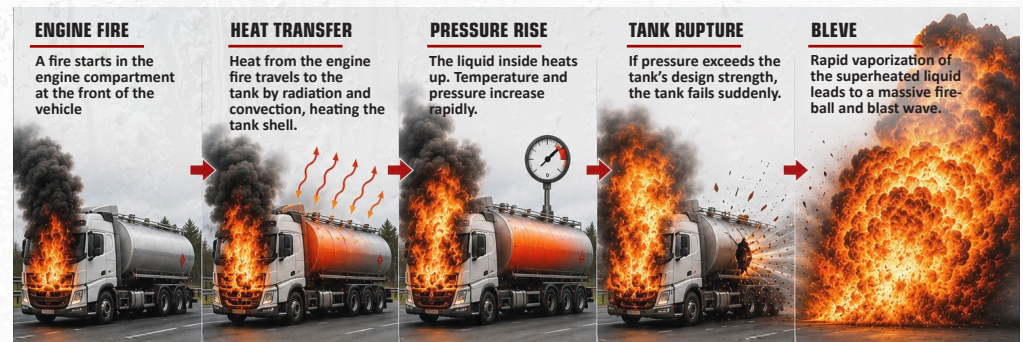
- Fire tests will be performed without a floor, to maximize resemblance with a truck engine room
- No re-ignition allowed within 300 seconds
- A safety factor of 1.5 will be added to the suppression agent volume

Why Fogmaker?

Fogmaker has decades of experience in detecting and suppressing fires. Our specially formulated water-based mist protects engines, hydraulic components, and similar at-risk areas. The system is always active, fully automatic, and independent of electricity.

What is BLEVE?

A BLEVE - Boiling Liquid Expanding Vapor Explosion - is a catastrophic event in which a pressurized tank that contains a liquid at or above its boiling point ruptures. This causes a massive fireball and a blast wave.



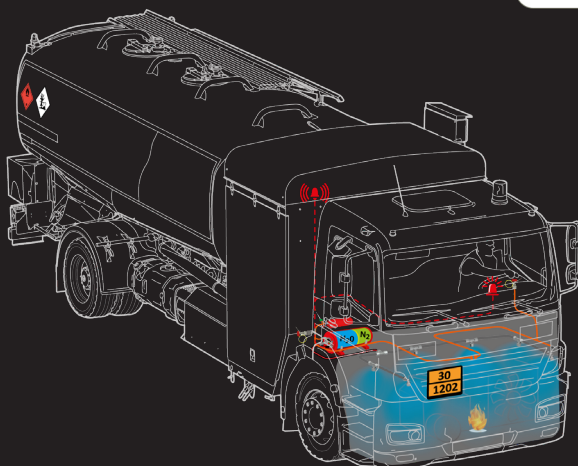
FOGMAKER

I N T E R N A T I O N A L A B

About Fogmaker International

- With more than 30 years experience, Fogmaker International has delivered almost 400,000 fire suppression systems worldwide.
- Headquartered in Växjö, Sweden, we are fully dedicated to the development and manufacturing of automatic fire suppression systems for vehicles.
- Fogmaker operates globally, with subsidiaries in Brazil, Finland, the USA and Southeast Asia (Bangkok), supported by distributors and service partners in more than 70 countries.
- Certified for IATF 16949, Fogmaker ensures the highest standards of quality and reliability. Our system carries product certificates from leading authorities, including UNECE, Australian Standard, and Factory Mutual, making it one of the most certified fire suppression systems in the world.
- Trusted by several of the world's leading bus and coach OEMs, Fogmaker continues to set the benchmark for vehicle fire safety.

CERTIFIED
IATF 16949



**FOGMAKER
INTERNATIONAL AB**

Sandvägen 4
SE-352 45 Växjö
Sweden

Tel +46 470-77 22 00
Fax +46 470-77 22 10
info@fogmaker.com
www.fogmaker.com

