



# Trans-1,3,3,3-tetrafluoropropene

## Product Stewardship Summary

Chemical Name:	Trans-1,3,3,3-tetrafluoropropene
Synonyms:	R-1234ze (E), HFO-1234ze (E), 1234ze (E)
CAS Number:	1645-83-6
EC (EINECS) Number:	471-480-0
Revision number:	1-2022

- **Chemical identification and uses:** HFO-1234ze (E), Colorless and non-flammable gas, is a low global warming foam blowing agent as well as a propellant in specialty applications. HFO-1234ze has a global warming potential of less than 10 (CO<sub>2</sub> equivalents) vs. current products which have a global warming potential of 500 or greater. 1234ze (E) is used in a wide variety of foam, household consumer products, and FDA approved metered dose-inhalers.
- **Potential exposures:** HFO-1234ze will be used in closed systems, thus significant exposure to workers is unlikely. Exposure to 1234ze (E) is expected to be low and can occur in industrial/manufacturing facilities from leakage due to cracks in storage containers and during usage of consumer/household/medicinal products with 1234ze (E). Good manufacturing and industrial hygiene practices should be followed to prevent or reduce contact. See the Safety Data Sheet (SDS) for additional information.
- **Human Health hazards:** HFO-1234ze is practically non-toxic. Short-term exposures upto 10% have not induced cardiac sensitization. It is not reproductive or developmental toxic chemical. Based on series of mutagenicity and genomic studies, the cancer risk for HFO-1234ze is low. Rats and rabbits did not exhibit any serious toxic, developmental or reproductive effects even with exposures to high levels of HFO-1234ze. One should refer to See the Safety Data Sheet (SDS) for additional information and any protective information.
- **Environmental Health hazards:** It is unlikely to impact the aquatic environment because of its high volatility and low toxicity to aquatic organisms. HFO-1234ze (E) is unlikely to impact the aquatic environment because of its high volatility and low toxicity to aquatic organisms. It will migrate almost exclusively into the atmosphere where it will have a lifetime of less than 2 weeks. It is not likely to accumulate in human bodies. This chemical was reviewed by The U.S. EPA under Significant new alternative policy (SNAP) program as a substitute for ozone depleting material.
- Please contact us at [PMTPSCustomerCare@Honeywell.com](mailto:PMTPSCustomerCare@Honeywell.com) for more information. Additional information may also be found at the following links:

HFO-1234ze (E) : [Pubchem](#)



*This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of all health and safety information. Additional information on the chemical is available through the applicable Material Safety Data Sheet which should be consulted before use of the chemical. The product stewardship summary does not supplant or replace required regulatory and/or legal communication documents. Statements concerning use of our products are made without warranty that any such use is free of patent infringement and are not recommendations to infringe any patent.*