

CENTRAL GLASS Co., Ltd.

Issued: April 6, 2017
Revised: November 08, 2023

Safety Data Sheet

1. Identification

Product name: trans-1-Chloro-3,3,3-trifluoropropene
Product code: CG-0002
Other means: HFO-1233zd (E)
Recommended use: Blowing agent. Not for pharmaceutical, household or other uses.
Manufacturer
Company name: Central Glass Co., Ltd.
Address: Kowa Hitotsubashi Bldg., 3-7-1 Kanda Nishikicho, Chiyoda-ku,
Tokyo 101-0054, Japan
Section concerned: Applied Chemicals Sales Department
Phone: 81-3-3259-7864
Fax: 81-3-3259-7488
Emergency phone: 81-3-3259-7864 (at Monday-Friday 9:00 a.m.-5:30 p.m.)

2. Hazards identification

Classification of the substance or mixture:

Classification:

Gases under pressure: Liquefied gas

Hazardous to the aquatic environment - short-term (acute) hazard: Category 3

GHS label elements, including precautionary statements

Symbol:



Signal word: Warning

Hazard statement: H280 Contains gas under pressure; may explode if heated.
H402 Harmful to aquatic life.

Precautionary statements

Prevention: P273 Avoid release to the environment.

Response: -

Storage: P410+P403

Protect from sunlight. Store in a well-ventilated place.

Disposal: P501 Dispose of contents and container in accordance with local/ regional/
national /international regulation

Other hazards which do not result in classification.

No Information

3. Composition/information on ingredients

Substance or mixture: Substance
Chemical name: trans-1-Chloro-3,3,3-trifluoropropene
Synonym: (E)-1-Chloro-3,3,3-trifluoroprop-1-ene
HFO-1233E, OF-1233E, HCFO-1233E, 1233E, 1233t
HFO-1233zdE, OF-1233zdE, HCFO-1233zdE, 1233zdE
E-1-Chloro-3,3,3-trifluoropropene
CAS No.: 102687-65-0
TSCA inventory: Registered
EINECS/ELINCS: Not registered

4. First-aid measures

Description of necessary first-aid measures

Inhalation: Remove to fresh air immediately. Lay patient down.
If breathing has stopped, apply artificial respiration.
Get medical attention immediately.

Eye Contact: Immediately flush eyes for at least 15 minutes.
Get medical attention.

Skin contact: Remove contaminated clothing.
Immediately flush skin with large amounts of water for
at least 15 minutes.
If frostbite, warm up the frosted parts and get medical
attention.

Ingestion: Do not induce vomiting. Get medical attention
immediately.

Most important Symptom/effects, acute and delayed:
No information

Indication of immediate medical attention and special treatment needed, if necessary:
No information.

5. Fire-fighting measures

Suitable extinguishing media: Water spray, dry chemical powder, carbon dioxide,
appropriate foam.

Specific hazards arising from the chemical:
If safe to do so, remove containers from path of fire.
If cylinders cannot be moved, spray water on the
cylinders and surrounding area to prevent exploding.
Produces harmful gases such as hydrogen fluoride,
carbon monoxide, in a fire.

Special protective actions for fire-fighters:
Fire fighter should wear self-contained breathing
apparatus and protective clothing to prevent contact
with skin and eyes.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Use appropriate protection (see section 8).

Environmental precautions: No information.

Methods and materials for containment and cleaning up:
Liquid will be vaporized rapidly due to its low boiling point.
Remove the leaking gas by using explosion-proof ventilating
equipment.

7. Handling and storage

Precautions for safe handling:	Use appropriate protection (see section 8). Do not heat the container. Use explosion-proof equipment at handling facility. Handle this product, considering the possibility that hydrogen fluoride might be formed when the liquid is exposed to flame or high temperature surface of metal. Avoid release to the environment.
Conditions for safe storage, including any incompatibilities:	Close valve tightly after use and when empty. Protect from sunlight. Store in a well-ventilated place. Try to keep the storage place at 40°C or less. Keep source of fire away from the storage place.

8. Exposure control / personal protections

Control parameters:	No information
Appropriate engineering control:	Local exhaust ventilation may be required in specific circumstances. Eyewash unit and shower are required near handling place.
Individual protection measures, such as personal protective equipment (PPE):	
Eye/face protection:	Chemical goggles
Skin protection:	Chemical-resistant protective clothing
Respiratory protection:	Use with NIOSH-approved respirator.
Thermal hazards:	No information

9. Physical and chemical properties

Appearance:	Colorless liquid
Odour:	weak ethereal odour
Odour threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point/boiling range:	18.4°C
Flash point:	No flashpoint to boiling point (Tag sealed method)
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	133 kPa (at 25°C)
Vapor density:	No data available
Relative density:	1.32 (to water at 5°C)
Solubility (ies):	1.9 g/L (in water at 20°C)
Partition coefficient n-octanol/water:	log Pow = 2.2
Auto-ignition temperature:	No data available
Decomposing temperature:	No data available
Viscosity:	No data available

10. Stability and reactivity

Reactivity:	No information.
Chemical stability:	Stable at cold store in closed containers under normal storage and handling conditions.
Possibility of hazardous reactions:	No information.
Conditions to avoid:	Avoid exposure to flame.
Incompatible materials:	Strong base, oxidant and/or reducer.
Hazardous reaction/decomposition products:	Combustion may give HF, HCl, COX ₂ (X=F or Cl), etc.

11. Toxicological information

Acute toxicity:	No data available
Skin corrosion/irritation:	No data available
Serious eye damage/eye irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	Ames test: negative Chromosome aberration test: negative
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
STOT - single exposure:	No data available
STOT - repeated exposure:	NOAEL 10,000ppm (rat, nose inhalation) (28 exposure date (6 h/day,5 day/week)) No specific target toxicity
Aspiration hazard:	No data available
Other information:	No data available

12. Ecological information

Toxicity:	72 h EC ₅₀ (for algae) >220 mg/L NOEC (for algae) 120 mg/L 48 h EC ₅₀ (for Daphnia magna) 82 mg/L 96 h LC ₅₀ (for rainbow trout) 38 mg/L
Persistence and degradability:	No Biodegradability
Bioaccumulative potential:	Low bioconcentrative
Mobility in soil:	No information
Ozone Depletion Potential :	≐0
Other adverse effects:	
Global Warming Potential (100 years):	=1

13. Disposal considerations

Disposal methods	
Product:	Wash thoroughly and dispose according to country, federal, and local regulations.
Packing:	Any disposal practice must be in compliance with country, local, state, and federal laws and regulations (contact country, local or state environmental agency for specific rules).

14. Transport information

UN number:	3163
UN proper Shipping name:	LIQUEFIED GAS, N.O.S. (trans-1-Chloro-3,3,3-trifluoropropene)
Transport hazard class(es):	Class 2.2 (Non-flammable gas)
Packing group if applicable:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	No information
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Not applicable

Follow all regulations in your country.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question:

U.S. regulations:
TSCA Inventory: Registered

Follow all regulations in your country.

16. Other information

Attentions

- We make no warranties regarding the contents shown in this SDS. Users will indemnify and hold harmless us against all actions, claims, damages, costs and expenses resulting from and/or in connection with using the contents shown in this SDS.
- The contents shown in this SDS are for normal handling.
- Special considerations may be required for particular operations.
- The contents shown in this SDS are not exhaustive. Other related documents and information should be consulted before using the product.

Revision History

- June 14 2018
- November 08, 2023