

CFC-13

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

- 1.1 Identification of the preparation: CFC-13
Synonyms : Chlorotrifluoromethane
Formula : CClF_3
CAS-No : 75-72-9
EEC-No : 200-894-4
- 1.2 Company :
Honeywell
AlliedSignal Fluorochemicals Europe B.V.
Kempenweg 90
P.O.Box 264
6000 AG Weert
The Netherlands
Tel (31)495 514200 Fax (31)495 518626
- 1.3 Emergency telephone number: (32) 16 391 391

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Symbol(s) : & R -phrase(s)
chlorotrifluoromethane	75-72-9	100	N;R59

3. HAZARDS IDENTIFICATION

- 3.1 Most important hazards:
- 3.2 Specific hazards: Dangerous for the ozone layer.

4. FIRST-AID MEASURES

- 4.1 Eyes : Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
- Skin : liquefied gas, may cause frostbite. Wash frostbitten areas with plenty of water. Do not remove clothing. Wash off with warm water. If skin irritation persists, call a physician.
- Inhalation : Move to fresh air in case of accidental inhalation of vapours. Oxygen or artificial respiration if needed. Do not apply artificial respiration if patient is breathing. Consult a physician after significant exposure. Do not give adrenaline or similar drugs.
- Ingestion : Do not induce vomiting without medical advice. Call a physician immediately. Do not give drugs from adrenaline-ephedrine group.
- General advice : Consult a physician after significant exposure.

5. FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media:
The product itself does not burn. Extinguish with carbon dioxide, dry chemical, foam or waterspray. Use extinguishing measures that are appropriate to the environment.
- 5.2 Extinguishing media which must not be used for safety reasons:
None
- 5.3 Specific hazards: Possibility of generating hazardous reactions during a fire due to the presence of F and/or Cl groups. Fire or intense heat may cause violent rupture of packages.
- 5.4 Special protective equipment for firefighters: In case of fire, wear a self contained breathing apparatus. protective suit.

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5.5 Specific methods: Standard procedure for chemical fires. In the event of fire, cool tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions: Use personal protective equipment. Evacuate personnel to safe areas. Do not breath vapours or spray mist. Ensure adequate ventilation.

6.2 Methods for cleaning up: Shut off leaks if without risk. Solid evaporates. Ensure adequate ventilation.

7. HANDLING AND STORAGE

7.1 Handling: Keep away from heat, sources of ignition. Do not puncture or drop container. Provide sufficient air exchange and/or exhaust in work rooms.

7.2 Storage: Keep containers tightly closed in a cool, well-ventilated place. Store in a cool and shaded area. Do not expose to temperatures above 50 °C. Keep tightly closed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Engineering measures to reduce exposure:
Ensure adequate ventilation, especially in confined areas.

8.2 Personal protection equipment:

- Respiratory protection: In case of insufficient ventilation wear suitable respiratory equipment, preferably a compressed airline breathing apparatus.

- Hand protection: impervious butyl rubber gloves.

- Eye protection: Wear as appropriate: safety glasses, goggles. Wear face-shield and protective suit for abnormal processing problems.

- Skin and body protection: Chemical resistant apron, long sleeved clothing, safety shoes.

8.3 Exposure limit(s):

Honeywell : chlorotrifluoromethane: 1000ppm (TWA)

MAK-Werte (D) : Chlortrifluormethan: 1000ppm; 4330mg/m3

MAC (Nederland) : chloortrifluormethaan: 2000ppm; 8700mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Form : colourless gas

9.2 Odour : very faint, ether-like

9.3 pH (at °C) : not applicable

9.4 Boiling point/range : -81.4 °C

9.5 Melting point/range : -181 °C

9.6 Flash point : not applicable °C

9.7 Flammability (solid, gas) : not applicable

9.8 Autoignition temperature : not applicable °C

9.9 Explosion limits : not applicable %vol %vol

9.10 Oxidizing properties :

9.11 Vapour pressure (at 20 °C) : 32000 hPa

9.12 Relative density (at 20 °C) : 0.93 g/cm3

9.13 Water solubility : negligible 0.009 g/100ml

9.14 Solubility in other solvents : Solubility in other solvents: ether, ethanol

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9.15	Partition coefficient (n-octanol/water)	:	
9.16	Vapor density	:	3.62 (air=1)
9.17	Evaporation Rate	:	no data available
9.18	Other information	:	

10. STABILITY AND REACTIVITY

10.1	Stability:	Stable at normal conditions. No decomposition if stored and applied as directed. Decomposition starting from 260°C.
10.2	Conditions to avoid:	Fire or intense heat may cause violent rupture of packages.
10.3	Materials to avoid	reacts violently with metals (at high temperatures). Contact with water liberates hazardous gas (risk of explosion).
10.4	Hazardous decomposition products:	halogenated compounds, hydrogen halides (HCl, HF), carbonyl halides (COCl ₂), carbon monoxide, carbon dioxide (CO ₂).

11. TOXICOLOGICAL INFORMATION

11.1	Acute toxicity :	slightly harmful by inhalation
11.2	Irritation :	
	- Skin :	slightly irritant. may cause frostbite.
	- Eyes :	slightly irritant
11.4	Chronic toxicity:	no data available

12. ECOLOGICAL INFORMATION

12.1	Mobility:	Aquatic toxicity is unlikely due to low solubility.
12.2	Ecotoxicity:	
12.3	Other information:	Ozone depletion potential; ODP; (R-11 = 1) = 1 Global warming potential (GWP) = 11700

13. DISPOSAL CONSIDERATIONS

13.1	Waste from residues / unused products:	Offer surplus and non-recyclable solutions to an established disposal company. In accordance with local and national regulations. S59 - Refer to manufacturer/supplier for information on recovery/recycling.
	Contaminated packaging:	Do not reuse empty containers. Empty pressure vessels should be returned to the supplier.

14. TRANSPORT INFORMATION

UN No	1022			
ADR/RID	Proper shipping name	:	chlorotrifluoromethane (R13)	
	HI No	:	20	Label : 2.2
	UN No	:	1022	Class & Item : 2.2A
IMDG	Proper shipping name	:	chlorotrifluoromethane (R13)	
	IMDG Page	:	2122	UN No : 1022 Class : 2.2
	EmS	:	2-09	MFAG : 350
	Marine pollutant	:	not applicable	
IATA / ICAO	Proper shipping name	:	chlorotrifluoromethane (R13)	
	Class	:	2.2	

15. REGULATORY INFORMATION

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15.1 Classification according to European directive on classification of hazardous preparations 88/379/EEC

Contains: chlorotrifluoromethane
EEC No. 200-894-4

Symbol(s):



N - Dangerous for the environment

R -phrase(s): R59 - Dangerous for the ozone layer.

S -phrase(s): S 7/9 - Keep container tightly closed and in a well-ventilated place.

S23 - Do not breathe gas

S59 - Refer to manufacturer/supplier for information on recovery/recycling.

16. OTHER INFORMATION

REVISION: 1 (SDS 26/05/95)

Changes were made in section(s) :

1. IDENTIFICATION OF THE
SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING
12. ECOLOGICAL INFORMATION

PRINT DATE : 22/12/1999

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