

SECTION1. Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product code: GAS HORN

Trades code: 32017 - 32018

Chemical Name: trans-1,3,3,3-tetrafluoroprop-1-ene CAS: 29118-24-9 - EC No: 471-480-0 - REACH: 01-0000019758-54

1.2. Relevant identified uses of the substance or mixture and uses advised against

Gas horn

Sectors of use:

Private households (= general public = consumers)[SU21], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:

Other products (use ConsExpo subcategories or UCN codes)

Uses advised against

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

Elettromeccanica Belli srl - Via Virgilio,30 21100 Varese (VA) Tel. + 39 0332/227500 Fax +39 0332/223275

Email: amministrazione@voxbell.it - Sito internet: www.voxbell.it**1.4. Emergency telephone number**

Emergency telephon number EU 112

SECTION2. Hazards identification**2.1. Classification of the substance or mixture**

CAS 29118-24-9 EINECS 471-480-0 REACH 01-0000019758-54

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

None

Hazard Class and Category Code(s):

Aerosol

Hazard statement Code(s):

H229 - Pressurised container: May burst if heated.

The repeated inhalation of vapors can cause drowsiness and giddiness.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.

The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
- Warning

Hazard statement Code(s):
H229 - Pressurised container: May burst if heated.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:

General

P102 - Keep out of reach of children.

Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P251 - Do not pierce or burn, even after use.

Storage

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

No information on other hazards

SECTION3. Composition/information on ingredients

3.1 Substances

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
trans-1,3,3,3-tetrafluoroprop-1-ene	>99%	Liq. Gas, H280 ATE oral > 207.000,0 mg/kg	ND	29118-24-9	471-480-0	01- 000001975 8-54

3.2 Mixtures

Irrilevant

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:

Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product):

Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product):
Wash immediately and thoroughly with running water for at least 10 minutes.

Ingestion:
Not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine

4.2. Most important symptoms and effects, both acute and delayed

For symptoms and effects due to substances refer to paragraph 11.

4.3. Indication of any immediate medical attention and special treatment needed

If medical advice is needed, have product container or label at hand.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
Water spray, CO₂, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing means to avoid:
Direct jets of water

5.2. Special hazards arising from the substance or mixture

The aerosol containers overheated burst and can be ejected with violence from a distance and can take place a dangerous mechanism for the fire.
Manufactured under pressure in sealed metal container (test pressure 15 bar max). Cool containers with water spray trying to remove them from the fire. The aerosol containers can be overheated and burst violently ejected from a distance (protect the head using a safety helmet).

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Leave the area surrounding the spill or release. Do not smoke
Leave the surrounding area recalling that any overheating could project the cylinder at a considerable distance.
Wear gloves and protective clothing

6.1.2 For emergency responders:
Given the tightness of aerosol, it is unlikely that the spillage may occur.
However if some container is damaged likely to cause a loss, insulate the tank in question by bringing it to open air or covering it with inert material and fuel (eg sand, earth, vermiculite) and having the care to avoid any point of ignition that might pose a serious risk of fire.
Wear suitable gloves (PVC, butyl rubber, neoprene or similar) and protective clothing.
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill
Inform the competent authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Recover the product for reuse, if possible, or the removal.

6.3.2 For cleaning up:
After wiping up, wash with water the area and materials involved

6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
At work do not eat or drink.
Vapors are heavier than air and may spread close to the ground and form explosive mixtures with air. Prevent formation of flammable or explosive concentrations in the air.
Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.
Do not pierce or burn, even after the use. Do not spray on flame or incandescent objects. Use in adequately ventilated areas.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Pressurized container. Store in a ventilated place, in original packaging away from heat and sunlight.
Keep away from open flames, sparks and heat sources. Avoid direct sunlight exposure.

7.3. Specific end use(s)

Private households (= general public = consumers):

- Keep away from heat sources, sparks, open flames
- Do not breathe spray/vapours
- Avoid contact with eyes, skin, clothing
- Do not eat, drink or smoke when using
- Do not use in confined and/or limited spaces

Public domain (administration, education, entertainment, services, craftsmen):

- Keep away from heat sources, sparks, open flames
- Do not breathe spray/vapours
- Avoid contact with eyes, skin, clothing
- Do not eat, drink or smoke when using
- Do not use in confined and/or limited spaces

SECTION 8. Exposure controls/personal protection**8.1. Control parameters**

Related to contained substances:
trans-1,3,3,3-tetrafluoroprop-1-ene
TLV-TWA: 800 ppm

- Substance: trans-1,3,3,3-tetrafluoroprop-1-ene
DNEL
Systemic effects Long term Workers inhalation = 3902 (mg/m³)
Systemic effects Long term Consumers inhalation = 830 (mg/m³)
PNEC
Sweet water = 0,1 (mg/l)

8.2. Exposure controls

Appropriate engineering controls:
Private households (= general public = consumers):
Work in a well ventilated place or equipped with ventilation devices. Do not use on hot surfaces or surfaces exposed to sunlight in order to avoid rapid evaporation of the product. Use personal protective equipment (see below).

Public domain (administration, education, entertainment, services, craftsmen):
Ensure good ventilation in the workplace through effective local aspiration. If these steps are not enough to maintain the concentration of the product below the exposure limit values in the workplace, wear appropriate respiratory protection. Provide a system for eye wash. Before using the product refer to the label for hazard details. During the selection of personal protective equipment, seek appropriate advice from the supplier. Personal protective equipment must comply with regulations in force.

Individual protection measures:

(a) Eye / face protection
Wear safety goggles to EN-166

(b) Skin protection

(i) Hand protection
Gloves material: nitrile
Thickness: 0,40 mm
Breakthrough time: > 480 min

(ii) Other
Avoid direct contact with the skin
Better is to use cotton antistatic clothing

(c) Respiratory protection
Work in a sufficiently ventilated to avoid inhaling the product.

(d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices to avoid pollution into the environment.

SECTION 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical and chemical properties	Value	Determination method
Physical state	liquid gas under pressure	VISUAL
Colour	colorless	
Odour	odorless	ORGANOLEPTIC
Odour threshold	not determined	
Melting point/freezing point	-156 °C	
Boiling point or initial boiling point and boiling range	-19 °C	
Flammability	irrelevant	
Lower and upper explosion limit	not determined	
Flash point	non-flammable	
Auto-ignition temperature	368 °C	
Decomposition temperature	not determined	
pH	irrelevant	PH-METER
Kinematic viscosity	not determined	
Solubility	in common organic solvents	
Water solubility	negligible	
Partition coefficient n-octanol/water (log value)	log(Pow) = 1,6	
Vapour pressure	4,3 hPa	
Density and/or relative density	1,17 kg/l	
Relative vapour density	4	
Particle characteristics	not determined	

9.2. Other information**9.2.1 Information with regard to physical hazard classes**

Irrilevant

9.2.2 Other safety characteristics

Irrilevant

SECTION 10. Stability and reactivity**10.1. Reactivity**

No reactivity hazards

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.



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In conformity to Regulation (EU) 2020/878

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Avoid heating the product, it could explode.

The aerosol product is stable for a period exceeding 36 months and in normal storage conditions can not take place dangerous reactions as the container is almost hermetically sealed.

To avoid that the metal container can deteriorate, keep away from acidic or basic products. Attention to the heat as temperatures exceeding 50 °C has increased pressure inside the container that gets to deformation of the cylinder until the outbreak.

10.5. Incompatible materials

It can ignite in contact with oxidants mineral acids.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

ATE oral = ∞

ATE dermal = ∞

ATE inhal = ∞

- (a) acute toxicity: based on available data, the classification criteria are not met.
- (b) skin corrosion/irritation: based on available data, the classification criteria are not met.
- (c) serious eye damage/irritation: based on available data, the classification criteria are not met.
- (d) respiratory or skin sensitisation: based on available data, the classification criteria are not met.
- (e) germ cell mutagenicity: based on available data, the classification criteria are not met.
- (f) carcinogenicity: based on available data, the classification criteria are not met.
- (g) reproductive toxicity: based on available data, the classification criteria are not met.
- (h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
- (i) specific target organ toxicity (STOT) repeated exposure: based on available data, the classification criteria are not met.
- (j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

trans-1,3,3,3-tetrafluoroprop-1-ene:

LD50 (rat) Oral (mg/kg body weight) > 207000

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:

trans-1,3,3,3-tetrafluoroprop-1-ene:

Toxicity to fish

- LC0 *Cyprinus carpio* (eurasian carp), 96h = 117 mg/l (literature value)

Toxicity to daphnia and other aquatic invertebrates

- EC50 *Daphnia magna*, 48h > 160 mg/l

Toxicity to algae

- EC50 *Pseudokirchneriella subcapitata*, 72h > 170 mg/l (literature value)

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

12.6. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

12.7. Other adverse effects

No adverse effects

SECTION 13. Disposal considerations**13.1. Waste treatment methods**

The waste must be disposed of in compliance with the regulations in force delivering empty containers for final disposal and equipped to safely handle pressurized containers containing flammable liquids and gas waste. The empty container heated to temperatures exceeding 70 °C can burst. Recover if possible. Operate according to local or national regulations

SECTION 14. Transport information**14.1. UN number or ID number**

ADR/RID/IMDG/ICAO-IATA: 1950

ADR exemption because compliance with the following characteristics:

Combination packagings: per inner packaging 1 L per package 30 Kg

Inner packagings placed in shrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: AEROSOL asfissianti

ADR/RID/IMDG: AEROSOL asphyxiant





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ICAO-IATA: AEROSOL asphyxiant

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class: 2
ADR/RID/IMDG/ICAO-IATA: Label: 2.2
ADR: Tunnel restriction code: E
ADR/RID/IMDG/ICAO-IATA: Limited quantities: 1 L
IMDG - EmS: F-D, S-U

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: --

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent: Not

14.6. Special precautions for user

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions.
The transport must be carried out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

14.7. Maritime transport in bulk according to IMO instruments

It is not intended to carry bulk

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Directive 2012/18/EU, annex I, part 1

Control of Substances Hazardous to Health (COSHH), Regulations 2002

Regulation 2006/1907/EC (REACH), Regulation 2008/1272/EC (CLP).

Substances in the Candidate List (REACH Article 59)

Based on available data, no SVHC substances are present

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Description of the hazard statements exposed to point 3
H280 = Contains gas under pressure; may explode if heated.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:



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Classification according to Regulation (EC) Nr. 1272/2008

H229 - Pressurised container: May burst if heated. Classification procedure: On basis of test data

Main normative references:

Regulation 1907/2006/EC

Regulation 1272/2008/EC

Regulation (EU) 2020/878

*** This tab annuls and replaces any previous edition.