

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

Frost Spray

Product no.

-

REACH registration number

01-0000019758-54

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

Relevant identified uses of the substance or mixture

NA

Metal surface treatment products, including galvanic and electroplating products, (PC14)

Non industrial spraying (PROC 11)

Formulation [mixing] of preparations and/or re-packaging (excluding alloys) (SU 10)

Professional uses: Public domain (administration, education, entertainment, services, craftsmen) (SU 22)

Formulation of preparations (ERC2)

Metal articles (AC7)

Uses advised against

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The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

Pureno A/S

Rønnevangs Allé 8

3400 Hillerød

Denmark

Tlf.: +45 70 260 267

Contact person

Kenneth Christensen

E-mail

mail@pureno.dk

SDS date

2020-03-02

SDS Version

4.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service). See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Aerosol 3; H229

See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)

Not applicable

Signal word

Warning

Hazard statement(s)

Pressurised container: May burst if heated. (H229)

Precautionary statements

General Keep out of reach of children. (P102).

Prevention	Do not pierce or burn, even after use. (P251).
Response	-
Storage	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F. (P410+P412).
Disposal	-

Identity of the substances primarily responsible for the major health hazards

Trans-1,3,3,3,-Tetrafluoroprop-1-ene. CAS no.: 29118-24-9

▼ Additional labelling

Not applicable

Unique formula identifier (UFI)

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▼ 2.3. Other hazards

Not applicable

▼ Additional warnings

Not applicable

VOC (volatile organic compound)

Not applicable

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances/Mixtures

NAME:	Trans-1,3,3,3,-Tetrafluoroprop-1-ene
IDENTIFICATION NOS.:	CAS-no: 29118-24-9 EC-no: 471-480-0 REACH-no: 01-0000019758-54
CONTENT:	95-100%
CLP CLASSIFICATION:	Comp. Gas H280

(*) See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: First aid measures

4.1. Description of first aid measures

▼ General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service: Dial 0344 892 0111 (24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

▼ Inhalation

Bring the person into fresh air and stay with him/her.

▼ Skin contact

Immediately remove contaminated clothing and shoes. Ensure that skin, which has been exposed to the material, is washed thoroughly with soap and water. Skin cleanser can be used. DO NOT use solvents or thinners.

▼ Eye contact

Remove contact lenses and open eyes widely. Flush eyes with water or saline water(20-30°C) for at least 15 minutes. Seek medical assistance and continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

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

Nothing special

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

Nothing special

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Waterjets should not be used, since they can spread the fire.

▼ 5.2. Special hazards arising from the substance or mixture

Nothing special

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No specific requirements.

6.2. Environmental precautions

No specific requirements.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section on "Disposal considerations" in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. See section on 'Exposure controls/personal protection' for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Storage temperature

No data available.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

No substances are listed in The Control of Substances Hazardous to Health Regulations with an occupational exposure limit.

DNEL / PNEC

No data available

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

General recommendations

Observe general occupational hygiene standards.

Exposure scenarios

In the event exposure scenarios are appended to the safety data sheet, the operational conditions and risk management measures in these shall be complied with.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment



Generally

Use only CE marked protective equipment.

Respiratory Equipment

No specific requirements.

Skin protection

No specific requirements.

▼ Hand protection

Nitrile rubber

Eye protection

No specific requirements.

SECTION 9: Physical and chemical properties

▼ 9.1. Information on basic physical and chemical properties

Form	Aerosol
Colour	Colourless
Odour	None
Odour threshold (ppm)	No data available.
pH	No data available.
Viscosity (40°C)	No data available.
Density (g/cm ³)	1,18

Phase changes

Melting point (°C)	No data available.
Boiling point (°C)	No data available.
Vapour pressure	No data available.
Decomposition temperature (°C)	No data available.
Evaporation rate (n-butylacetate = 100)	No data available.

Data on fire and explosion hazards

Flash point (°C)	No data available.
Ignition (°C)	No data available.
Auto flammability (°C)	No data available.
Explosion limits (% v/v)	No data available.
Explosive properties	No data available.

Solubility

Solubility in water	Insoluble
n-octanol/water coefficient	2,01

9.2. Other information

Solubility in fat (g/L)	No data available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in the section "Handling and storage".

▼ 10.3. Possibility of hazardous reactions

Nothing special

▼ 10.4. Conditions to avoid

Nothing special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

▼ **Acute toxicity**

Substance: Trans-1,3,3,3,-Tetrafluoroprop-1-ene
 Species: Rat
 Test: LC50
 Route of exposure: Inhalation
 Result: >965 mg/l 4h

▼ **Skin corrosion/irritation**

No data available.

Serious eye damage/irritation

No data available.

Respiratory or skin sensitisation

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

▼ **Long term effects**

Nothing special

SECTION 12: Ecological information

▼ **12.1. Toxicity**

Substance: Trans-1,3,3,3,-Tetrafluoroprop-1-ene
 Species: Daphnia
 Test: EC50
 Duration: 48 h
 Result: >160 mg/l

Substance: Trans-1,3,3,3,-Tetrafluoroprop-1-ene
 Species: Algae
 Test: NOEC
 Duration:
 Result: >170

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
No data available.			

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
No data available.			

12.4. Mobility in soil

No data available

▼ **12.5. Results of PBT and vPvB assessment**

This substance is not considered to meet the criteria classifying it as PBT and/or vPvB.

▼ **12.6. Other adverse effects**

Nothing special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is not covered by regulations on dangerous waste.

Waste

EWC code

16 05 04*

gases in pressure containers (including halons) containing dangerous substances

▼ Specific labelling

Not applicable

▼ Contaminated packing

Contaminated packaging must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 – 14.4

ADR/RID

14.1. UN number 1950

14.2. UN proper shipping name -

14.3. Transport hazard class(es) 2.2

14.4. Packing group -

Notes -

Tunnel restriction code -

IMDG

UN-no. 1950

Proper Shipping Name Aerosoler

Class 2.2

PG* -

EmS F-D, S-U

MP** NO

Hazardous constituent -

IATA/CAO

UN-no. 1950

Proper Shipping Name Aerosoler

Class 2.2

PG* -

14.5. Environmental hazards

-

14.6. Special precautions for user

-

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application

-

Demands for specific education

-

Additional information

Not applicable

Seveso

-

Biocidal reg. no.

Not applicable

Sources

Council Directive 75/324/EEC of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP).
Regulation (EC) 1907/2006 (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H280 - Contains gas under pressure; may explode if heated.

The full text of identified uses as mentioned in section 1

PC14 = Metal surface treatment products, including galvanic and electroplating products,
PROC 11 = Non industrial spraying
SU 10 = Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU 22 = Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
ERC2 = Formulation of preparations
AC7 = Metal articles

Additional label elements



Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The safety data sheet is validated by

KAO

Date of last essential change (First cipher in SDS version)

2017-01-04(3.0)

Date of last minor change (Last cipher in SDS version)

2017-01-04