

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

-

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

2017-01-04

SDS Version

3.0

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)

-

Signal word

Warning

Hazard statement(s)

Pressurised container: May burst if heated. (H229)

Safety statement(s)

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

▼ 2.3. Other hazards

-

Additional labelling

0 mass percent of the content is flammable

Additional warnings

-

VOC

-

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 chapter 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 111, 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.

▼ Skin contact

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

▼ Eye contact

Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. 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

No special

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

No 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

No 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**

Recommended: 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
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.

▼ **Data on fire and explosion hazards**

Flashpoint (°C)	No data available.
Ignition (°C)	No data available.
Self-ignition (°C)	No data available.
Explosion limits (Vol %)	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

No special

10.4. Conditions to avoid

No 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	Species	Test	Route of exposure	Result
Trans-1,3,3,3,-Tetrafluoroprop-...	Rat	LC50	Inhalation	>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

No special

SECTION 12: Ecological information**12.1. Toxicity**

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

No data available

12.6. Other adverse effects

No 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

-

▼ Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information**14.1 – 14.4**

This product is within scope of the regulations of transport of dangerous goods.

▼ **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/ICAO**

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

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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). EC regulation 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

Other symbols mentioned in section 2



Other

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:

The classification of the mixture in regard of physical hazards has been based on experimental data. 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)**

2016-01-25

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

2016-01-25