

SAFETY DATA SHEET

PRF Leak tester

The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	12.01.2023
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1.1. Product identifier

Product name	PRF Leak tester
Article no.	PILEAK40

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

Use of the substance / mixture	Leak detector
Main intended use	PC-TEC-OTH Other products for chemical or technical processes

1.3. Details of the supplier of the safety data sheet

Company name	Taerosol Oy
Postal address	Hampuntie 21
Postcode	36220
City	Kangasala
Country	Finland
Telephone number	+358 33565600
Website	www.taerosol.com
Enterprise No.	02847686

1.4. Emergency telephone number

Emergency telephone	Telephone number: 112 / Finnish Poison Information Center: 0800 147 111, 24/7
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Aerosol 1; H229
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Substance / mixture hazardous properties	May explode if heated Vapours may form explosive mixture with air.
Additional information on classification	For the full text of the statements mentioned in this Section, see Section 16.

2.2. Label elements

Signal word	Warning
Hazard statements	H229 Pressurised container: May burst if heated.
Precautionary statements	P102 Keep out of reach of children. 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. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122°F.

2.3. Other hazards

PBT / vPvB	See section 12.5
Health effect	See section 11.2

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Propan-2-ol	CAS No.: 67-63-0 EC No.: 200-661-7 REACH Reg. No.: 01-2119457558-25-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	< 10 %	
Substance comments	Aerosol propellants: 1,3,3,3-Tetrafluoropropene Contains: halogenated hydrocarbons ≥ 30 % For the full text of the statements mentioned in this Section, see Section 16.			

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Rinse skin with water/shower. When symptoms persist or in all cases of doubt seek medical advice.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. When symptoms persist or in all cases of doubt seek medical advice. If eye irritation persists: Get medical advice/attention.
Ingestion	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

General symptoms and effects	None known.
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4.3. Indication of any immediate medical attention and special treatment needed

Medical treatment	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Improper extinguishing media	Water spray

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	May explode if heated Vapours may form explosive mixture with air.
Hazardous combustion products	Carbon dioxide (CO ₂) Carbon monoxide (CO)

5.3. Advice for firefighters

Personal protective equipment	In accordance with the requirements of EN 469, firefighter's clothing with a helmet, protective boots and gloves provides a basic level of protection against chemical accidents. In case of inadequate ventilation wear respiratory protection. See section 8.2
Fire fighting procedures	Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Use personal protective equipment. See section 8.2 Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Stop leak if safe to do so. Evacuate area.
For emergency responders	Use personal protective equipment. See section 8.2

6.2. Environmental precautions

Environmental precautionary measures	Try to prevent the material from entering drains or water courses.
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6.3. Methods and material for containment and cleaning up

Containment	Prevent further leakage or spillage if safe to do so. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.
Clean up	Absorb spillage to prevent material damage. Non-sparking tools should be used.

6.4. Reference to other sections

Other instructions	See section 7, 8, 13
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling

Remove all sources of ignition. Take precautionary measures against static discharges. Non-sparking tools should be used. Ground and bond container and receiving equipment. Keep away from oxidising agents and strongly acid or alkaline materials. Try to prevent the material from entering drains or water courses. Handle in accordance with good industrial hygiene and safety practice. Do not taste or swallow. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Avoid breathing vapours/spray. Use only outdoors or in a well-ventilated area.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Remove all sources of ignition. Keep away from oxidising agents and strongly acid or alkaline materials. Take precautionary measures against static discharge. Ground / bond container and receiving equipment. Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F. Keep away from food, drink and animal feedingstuffs. Keep only in original container. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

7.3. Specific end use(s)

Specific use(s)

None known.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Propan-2-ol	CAS No.: 67-63-0	Country of origin: FI Limit value (8 h) : 200 ppm Limit value (8 h) : 500 mg/m ³ Limit value (short term) Value: 250 ppm Limit value (short term) Value: 620 mg/m ³ Limit value (short term) Appraisal period: 15 min Recommended monitoring procedures: This information is not available. Source: Decree of the Ministry of Social Affairs and Health on concentrations known to be harmful (654/2020)	

8.2. Exposure controls

Precautionary measures to prevent exposure

Appropriate engineering controls	See section 7.1, 7.2
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Eye / face protection

Eye protection equipment	<p>Description: Tightly fitting safety goggles Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.</p> <p>Reference to relevant standard: SFS-EN ISO 4007:2018</p> <p>SFS-EN ISO 16321-1:2022</p> <p>SFS-EN ISO 18526-1:2020</p> <p>SFS-EN ISO 16321-3:2022</p> <p>SFS-EN ISO 16321-2:2021</p> <p>SFS-EN ISO 18526-3:2020</p> <p>SFS-EN ISO 18526-2:2020</p> <p>SFS-EN ISO 18526-4:2020</p> <p>SFS-EN ISO 19734:2021</p> <p>SFS-EN 13911:2017</p> <p>SFS-EN 16473</p> <p>SFS-EN 167</p> <p>SFS-EN 168</p> <p>SFS-EN 443</p>
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Hand protection

Breakthrough time	<p>Comments: As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.</p>
Thickness of glove material	<p>Comments: As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use.</p>
Hand protection equipment	<p>Description: Usual safety precautions while handling the product will provide adequate protection against this potential effect. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. It is good practice in industrial hygiene to avoid contact with solvents by using appropriate protective measures whenever possible.</p> <p>Reference to relevant standard: SFS-EN ISO 374-1:2017</p> <p>SFS-EN ISO 374-5:2017</p> <p>SFS-EN 511</p> <p>SFS-EN 659 + A1</p> <p>SFS-EN 1082-1</p> <p>SFS-EN 1082-2</p> <p>SFS-EN 1082-3</p> <p>SFS-EN 14325:2018</p> <p>SFS-EN 16350</p>

Skin protection

Recommended protective clothing	<p>Description: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. It is good</p>
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practice in industrial hygiene to avoid contact with solvents by using appropriate protective measures whenever possible.

Reference to relevant standard: SFS-EN 863

SFS-EN 1149-2

SFS-EN 1149-3

SFS-EN 13034 + A1

SFS-EN 16689:2017

SFS-EN ISO 6530

CEN ISO/TR 11610

SFS-EN ISO 11612

SFS-EN ISO 13688

SFS-EN ISO 13982-1

SFS-EN ISO 13982-2

SFS-EN ISO 13995

SFS-EN ISO 13997

SFS-EN ISO 14116

SFS-EN 15090

CEN ISO/TR 18690

Respiratory protection

Recommended respiratory protection

Description: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Use respirator when performing operations involving potential exposure to vapour of the product. In case of inadequate ventilation wear respiratory protection. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Reference to relevant standard: SFS-EN ISO 16972:2020

SFS-EN 13274-1

SFS-EN 148-1:2019

SFS-EN 144-1:2018

SFS-EN 14593-1:2018

SFS-EN 1146

SFS-EN 12021

SFS-EN 12083 + AC

SFS-EN 12941 + A1 + A2

SFS-EN 12942 + A1 + A2

SFS-EN 13274-2:2019

SFS-EN 13274-4:2020

SFS-EN 13274-5

SFS-EN 13274-6

SFS-EN 13274-3

SFS-EN 13274-8

SFS-EN 13274-5

SFS-EN 13274-7:2019

SFS-EN 134

SFS-EN 135

SFS-EN 136 + AC

SFS-EN 137

SFS-EN 13794

SFS-EN 138

SFS-EN 140 + AC
 SFS-EN 142
 SFS-EN 143:2021
 SFS-EN 14387:2021
 SFS-EN 144-3 + AC
 SFS-EN 144-2:2018
 SFS-EN 14435
 SFS-EN 145/A1
 SFS-EN 145
 SFS-EN 14529
 SFS-EN 14594:2018
 SFS-EN 148-2
 SFS-EN 148-3
 SFS-EN 149 + A1
 SFS-EN 15333-2
 SFS-EN 1825-2
 SFS-EN 1827 + A1
 SFS-EN 250
 SFS-EN 269
 SFS-EN 402
 SFS-EN 403
 SFS-EN 404
 SFS-EN 405 + A1
 SFS-EN 529

Thermal hazards

Thermal hazards

Not applicable.

Appropriate environmental exposure control

Environmental exposure controls

See section 6.2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Aerosol dispenser: spray aerosol
Colour	clear
Odour	alcohol-like
Odour limit	Reason for waiving data: No data.
pH	Comments: This information is not available.
Melting point / melting range	Reason for waiving data: No data.
Boiling point / boiling range	Reason for waiving data: No data.
Flash point	Reason for waiving data: Not applicable
Flammability	Not applicable.
Lower explosion limit with unit of measurement	Reason for waiving data: No data.

Upper explosion limit with units of measurement	Reason for waiving data: No data.
Vapour pressure	Reason for waiving data: No data.
Vapour density	Reason for waiving data: Not applicable
Particle characteristics	Reason for waiving data: Not applicable
Relative density	Reason for waiving data: Not applicable
Density	Reason for waiving data: Not applicable
Solubility	Comments: This information is not available.
Partition coefficient: n-octanol/water	Reason for waiving data: No data.
Auto-ignition temperature	Reason for waiving data: Not applicable
Decomposition temperature	Reason for waiving data: Not applicable
Viscosity	Type: Kinematic Reason for waiving data: Not applicable

9.2. Other information

Other physical and chemical properties

Physical and chemical properties	This information is not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	See section 5.2
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10.2. Chemical stability

Stability	Stable
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	See section 5.2
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10.4. Conditions to avoid

Conditions to avoid	See section 7.1, 7.2
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10.5. Incompatible materials

Materials to avoid	See section 7.1, 7.2
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10.6. Hazardous decomposition products

Hazardous decomposition products	See section 5.2
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SECTION 11: Toxicological information

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

Substance	Propan-2-ol
Acute toxicity	Effect tested: LD50 Route of exposure: Oral Value: > 2000 mg/kg Animal test species: Rat Effect tested: LD50 Route of exposure: Dermal Value: > 2000 mg/kg Animal test species: Rabbit Effect tested: LC50 Route of exposure: Inhalation. Duration: 8 hour(s) Value: > 20 mg/l Animal test species: Rat

Other information regarding health hazards

Assessment of acute toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of skin corrosion / irritation, classification	Based on available data, the classification criteria are not met.
Assessment of eye damage or irritation, classification	Based on available data, the classification criteria are not met.
Assessment of respiratory sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of skin sensitisation, classification	Based on available data, the classification criteria are not met.
Assessment of germ cell mutagenicity, classification	Based on available data, the classification criteria are not met.
Assessment of carcinogenicity, classification	Based on available data, the classification criteria are not met.
Assessment of reproductive toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity - single exposure, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity - repeated exposure, classification	Based on available data, the classification criteria are not met.
Assessment of aspiration hazard, classification	Based on available data, the classification criteria are not met.

Symptoms of exposure

In case of ingestion	See section 4.2
In case of skin contact	See section 4.2
In case of inhalation	See section 4.2

In case of eye contact	See section 4.2
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11.2 Other information

Endocrine disruption	This information is not available.
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SECTION 12: Ecological information

12.1. Toxicity

Substance	Propan-2-ol
Aquatic toxicity, fish	Toxicity type: Acute Value: 6550 - 11300 mg/l Effect dose concentration: LC50 Test duration: 96 hour(s)
Substance	Propan-2-ol
Aquatic toxicity, algae	Toxicity type: Acute Value: > 1000 mg/l Effect dose concentration: EC50 Test duration: 72 hour(s)
Substance	Propan-2-ol
Aquatic toxicity, crustacean	Toxicity type: Acute Value: ~ 9700 mg/l Effect dose concentration: EC50 Test duration: 24 hour(s) Species: Daphnia magna

12.2. Persistence and degradability

Substance	Propan-2-ol
Biodegradability	Comments: Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation, evaluation	This information is not available.
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12.4. Mobility in soil

Substance	Propan-2-ol
Water / air volatility rate	Comments: Volatile.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This information is not available.
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12.6. Endocrine disrupting properties

Endocrine disrupting properties	This information is not available.
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12.7. Other adverse effects

Additional ecological information	This information is not available.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Dispose of product residue in accordance with the instructions of the person responsible for waste disposal. Avoid putting the substance into waste water.
Appropriate methods of disposal for the contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Where possible recycling is preferred to disposal. Do not pierce or burn, even after use.
EU Regulations	Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives

SECTION 14: Transport information

14.1. UN number

ADR/RID/ADN	1950
IMDG	1950
ICAO/IATA	1950

14.2. UN proper shipping name

Proper shipping name English ADR/RID/ADN	AEROSOLS
ADR/RID/ADN	AEROSOLS
IMDG	AEROSOLS
ICAO/IATA	AEROSOLS, NON-FLAMMABLE

14.3. Transport hazard class(es)

ADR/RID/ADN	2.2
Classification code ADR/RID/ADN	5A

14.4. Packing group

Comments	-
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14.5. Environmental hazards

Comments	No
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14.6. Special precautions for user

Special safety precautions for user	This information is not available.
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14.7. Maritime transport in bulk according to IMO instruments

Product name	AEROSOLS, NON-FLAMMABLE
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Additional information

Hazard label ADR/RID/ADN	2.2
Hazard label IMDG	2.2
Hazard label ICAO/IATA	2.2

ADR/RID Other information

Tunnel restriction code	E
Limited quantity	1 L
Excepted quantity	E0
Special provisions	190 327 344 625
Transport category	3

ADN Other information

Special provisions	190 327 344 625
Limited quantity	1 L
Excepted quantity	E0

IMDG Other information

EmS	F-D, S-U
Limited quantity	1000 mL
Excepted quantity	E0
Special provisions	63, 190, 277, 327, 344, 381, 959

ICAO/IATA Other information

Limited quantity	30 kg
Excepted quantity	E0
Special provisions	A145 A165 A802
Additional information ICAO/IATA	Cargo: max. 150 kg (203), Pas.: max. 75 kg (203)

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture**

Legislation and regulations	Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers The rules which cover amongst other things the requirement for ventilation, protective clothing, personal protective equipment etc. can be obtained from the National Occupational Health and Safety Board.
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15.2. Chemical safety assessment

Chemical safety assessment performed	No
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SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H225 Highly flammable liquid and vapour. H229 Pressurised container: May burst if heated. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
CLP classification, notes	Calculation method. Bridging principle "Aerosols"
Training advice	Provide adequate information, instruction and training for operators. Take notice of the directions of use on the label. To avoid risks to man and the environment, comply with the instructions for use.
Key literature references and sources for data	Information taken from reference works and the literature. http://echa.europa.eu http://eur-lex.europa.eu http://echa-term.echa.europa.eu Ingredient Safety Data Sheets
Abbreviations and acronyms used	CAS = Chemical Abstracts Service CLP = Classification, Labelling and Packaging DMEL = derived minimal effect level DNEL = derived no-effect level EC50 = The effective concentration of substance that causes 50% of the maximum response. ECHA = European Chemicals Agency EINECS = European Inventory of Existing Commercial Chemical Substances ELINCS = European List of Notified Chemical Substances EEA = European Economic Area EU = European Union EC number = The three European lists of substances from the previous EU chemicals regulatory framework, EINECS, ELINCS and the NLP-list, in combination are called the EC Inventory. The EC Inventory is the source for the seven-digit EC number, an identifier of substances commercially available within the European Union. GHS = Global Harmonised System SDS = safety data sheet LC50 = median lethal concentration LDx = lethal dose x% LOAEC = lowest observed adverse effect concentration LOAEL = lowest observed adverse effect level LOEC = lowest observed effect concentration LOEL = lowest observed effect level NOAEC = no observed adverse effect concentration NOAEL = no observed adverse effect level NOEC = no observed effect concentration NOEL = no observed effect level PBT = persistent, bioaccumulative and toxic PNEC = predicted no-effect concentration ppm = parts per million QSAR = quantitative structure-activity relationship

	REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals STOT = specific target organ toxicity UFI = unique formula identifier vPvB = very persistent and very bioaccumulative
Information added, deleted or revised	Relevant changes compared to the previous version of the safety data sheet are indicated with verticle lines in the left margin.
Version	1