According to Regulation (EC) 1907/2006 and Regulation (EC) 453/2010 (REACH)

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1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier:

Trade name: Sprühfolienentferner (Art. No. 2109)

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

Use of the substance

/Mixture: cleaner

1.3. Details of the supplier of the safety data sheet:

FOLIATEC Böhm GmbH & Co Vertriebs KG

Neumeyerstr. 70 D - 90411 Nürnberg Tel: 0049911975440 Fax: 004991197544366 Website: www.foliatec.de

1.4. Emergency telephone number:

Guide to health risks:

Consult with your physician or doctor on immediate duty. In the case of life threat call 112.

2. Hazard identification

2.1. Classification of the substance or mixture:

Classification (EC) 1272/2008

Aerosol 1; H222, H229 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H336 Aquatic Chronic 2; H411

Classification (67/548/EEC, 1999/45/EC)

F+; R12 Xi; R36/38 R43 R67 N; R51/53

2.2. Label elements:

Label elements (CLP)







Signal word: Danger

Hazard statements:	
H222	Extremely flammable aerosol.

	•		
H229	Pressurized	container: Ma	y burst if heated.

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

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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.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P302 + P352 IF ON SKIN: Wash with plenty of water and soap.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P410 + P412 Protect from sunlight. Do no expose to temperatures exceeding 50 oC/122oF.

P501 Dispose of contents/container to accordance with local / regional / national / international regulations.

Contains: Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic, d-Limonene, Propan-2-ol

Text for labelling:

Contain: > 30% hydrocarbons, d-Limonene

2.3. Other hazards:

No data available.

3. Composition/information on ingredients

Substance:

Mixture:

Chemical name:	Content (% m/m):	CAS: EC: Index:	Classification (67/548/EC):	Classification (1272/2008/EC):
Hydrocarbons, C7, n-alkanes, iso- alkanes, cyclic	10 – 25	/ 927-510-4 /	F; R11, Xn; R65, Xi; R38, R67, N; R51/53	Flam. Liq. 2; H225, Asp. Tox. 1; H304, Skin Irrit. 2; H315, STOT SE 3; H336, Aquatic Chronic 2; H411
Propan-2-ol	25 – 50	67-63-0 200-661-7 603-117-00-0	F; R11, Xi; R36, R67	Flam. Liq. 2; H225, Eye Irrit. 2; H319, STOT SE 3; H336
d-Limonene	10 – 25	5989-27-5 227-813-5 601-029-00-7	R10, Xi; R38, R43, N; R50/53	Flam. Liq. 3; H226, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410
Carbon dioxide	2,5 – 10	124-38-9 204-696-9	/	Press. Gass: H280
Propane	2,5 – 10	74-98-6 200-827-9 601-003-00-5	F+; R12	Flam. Gas. 1; H220, Press. Gass; H280
Isobutane	2,5 – 10	75-28-5 200-857-2 601-004-00-0	F+; R12	Flam. Gas. 1; H220, Press. Gass; H280

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4. First aid measures

4.1. Description of first measures:

General advice:

If inhaled Remove victim to fresh air, loosen tight clothing and keep quiet. In case of respiratory symptoms

consult doctor immediately.

In case of skin contact
Change contaminated clothing. After contact with skin, wash immediately with plenty of soap and

water. If skin becomes irritated, visit a doctor.

In case of eye contact Immediately rinse the open eyes 10 to 15 minutes, rinse with running water. In case of eye irritation

persists, consult an ophthalmologist.

If swallowed inapplicable

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

No data available.

4.3. Identification of any immediate medical attention and special treatment needed:

No data available.

5. Firefighting measures

5.1. Extinguishing media:

Suitable extinguishing Foam, water spray or fog. Dry chemical powder, carbon dioxide.

media:

Unsuitable Water jet.

extinguishing media

5.2. Special hazards arising from the substance or mixture:

Specific hazards Extremely flammable. Vapors may form explosive mixtures with air. In case of fire: Dense black during firefighting: smoke, which can cause a health hazard. Furthermore: Carbon monoxide and carbon dioxide.

5.3. Advice for firefighters:

Special protective

equipment for firefighters:

In the event of fire, self-contained breathing apparatus. Personal protective equipment.

Other information:

Standard procedure for chemical fires. Fighting measures that suit the environment. Explosion and fire fumes do not breathe. Use water spray to cool unopened containers. Collect contaminated firefighting water separately, do not empty into drains. Fire residues and contaminated firefighting water must be disposed in according to local regulations. Pay attention to flashback. Because of the bigh various pressure when bested bursting of the vascale.

high vapor pressure when heated bursting of the vessels.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:

See protective measures under point 7 and 8 use personal protective equipment. Remove all sources of ignition. Avoid contact with eyes. Ensure adequate ventilation, especially in confined areas. Immediately evacuate personnel to safe areas. Avoid inhalation of vapor or mist. In front of vapors accumulating to form explosive concentrations that can, beware. Vapors can accumulate in low areas.

6.2. Environmental precautions:

Do not flush into surface water or sanitary sewer system. Further leakage or spillage if this is possible without hazard. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up:

With non-combustible absorbent material to contain and collect spillage (eg sand, earth, diatomaceous earth, vermiculite) and to record, and place in container for disposal according to local / national regulations. Clean contaminated surface thoroughly.

6.4. Reference to other sections:

See section: 7, 8, 11, 12 and 13.

7. Handling and storage

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7.1. Precautions for safe handling:

Advice on safe handling:

Quantity stored at the work place. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Avoid contact with skin and eyes. Do not spray on a naked flame or any incandescent material. Prevent the creation of flammable or explosive concentrations of vapor in air and avoid vapor concentrations higher. Take precautionary measures against static discharges. Personal protective equipment see Section 8.

Advice on protection against fire and explosion

Normal measures for preventive fire protection. Vapors are heavier than air and may spread along floors. Vapors may form explosive mixtures with air. Keep away from heat and ignition sources. Do not smoke. Sparking tools. Electrical equipment should be protected to the appropriate standards.

7.2. Conditions for safe storage, including any incompatibilities:

Requirements for storage areas and containers:

Store in original container. BEWARE: Aerosol is pressurized. Keep away from direct sunlight and temperatures above 50 ° C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Keep container tightly closed in a dry, cool and well-ventilated place. Please observe the storage instructions for aerosols! Keep away from foodstuffs, beverages and feed. Do not store together with oxidizing and self-igniting products.

Storage class: 2B, Aerosols

7.3. Specific en use(s):

No data available.

8. Exposure controls/personal protection

8.1. Control parameters:

8.1.1. Limits for occupational exposure

Components	CAS-No.	Control parameters	Excess factor	Base	
		ml/m ³ (ppm)	mg/m ³		
Hydrocarbons, C7, n-alkanes, iso- alkanes, cyclic	/	200	1.000	4	
Propan-2-ol	67-63-0	200	500	4	
Carbon dioxide	124-38-9	5.000	9.000		
Propane	74-98-6	1.000	1.800	4	
Isobutane	75-28-5	1.000	2.400	4	

8.1.2. DNEL-and PNEC-values

Substance	Туре	Type of exposure	Exposure time	Value
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (workers)	Inhalation	Long term exposure – systemic effects	2085 mg/m ³
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (workers)	dermal	Long term exposure – systemic effects	300 mg/kg bw/day
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (consumer)	inhalation	Long term exposure – systemic effects	447 mg/m ³
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (consumer)	dermal	Long term exposure – systemic effects	149 mg/kg bw/day
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclic	DNEL (consumer)	oral	Long term exposure – systemic effects	149 mg/kg bw/day
Propan-2-ol	DNEL (workers)	inhalation	Long term exposure – systemic effects	500 mg/m ³
Propan-2-ol	DNEL (workers)	dermal	Long term exposure – systemic effects	888 mg/kg bw/day
Propan-2-ol	DNEL (consumer)	inhalation	Long term exposure – systemic effects	89 mg/m ³

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Propan-2-ol	DNEL (consumer)	Dermal	Long term exposure – systemic effects	319 mg/kg bw/day
Propan-2-ol	DNEL (consumer)	oral	Long term exposure – systemic effects	26 mg/kg bw/day
Propan-2-ol	PNEC	fresh water		140,9 mg/l
Propan-2-ol	PNEC	marine water		140,9 mg/l
Propan-2-ol	PNEC	water (intermittent releases)		140,9 mg/l
Propan-2-ol	PNEC	STP		2251 mg/l
Propan-2-ol	PNEC	sediment (freshwater)		552 mg/kg sed. dw
Propan-2-ol	PNEC	sediment (marine water)		552 mg/kg sed. dw
Propan-2-ol	PNEC	soil		28 mg/kg soil dw
Propan-2-ol	PNEC	oral		160 mg/kg food
d-Limonene	DNEL (workers)	inhalation	Long term exposure – systemic effects	33,3 mg/m ³
d-Limonene	DNEL (workers)	dermal	Short term exposure – local effects	222 μg/cm ²
d-Limonene	DNEL (consumer)	inhalation	Long term exposure – systemic effects	8,33 mg/m ³
d-Limonene	DNEL (consumer)	dermal	Short term exposure – local effects	111 μg/cm ²
d-Limonene	DNEL (consumer)	oral	Long term exposure – systemic effects	4,76 mg/kg bw/day
d-Limonene	PNEC	fresh water		5,4 μg/l
d-Limonene	PNEC	marine water		0,54 μg/l
d-Limonene	PNEC	STP		1,8 mg/l
d-Limonene	PNEC	sediment (freshwater)		1,32 mg/kg dwt
d-Limonene	PNEC	sediment (marine water)		0,13 mg/kg dwt
d-Limonene	PNEC	soil		0,262 mg/kg dwt
d-Limonene	PNEC	oral		3,33 mg/kg food

8.2. Exposure controls:

Technical protective equipment:

Provide sufficient air exchange and / or exhaust in work rooms.

Personal protective equipment:

Respiratory When exceeding the occupational exposure limits (OEL) is to wear a respirator. Filter AX, code protection: color brown, according to EN ready hold 371 self-contained respiratory protective device in case of

emergency.

Hand protection: Solvent resistant gloves according to EN 374 Glove material: nitrile rubber, butyl rubber or fluorine

rubber. Breakthrough time (maximum wearing period):> 480 min. The manufacturer of the

protective gloves on permeability and breakthrough time are observed.

Eye protection: Tightly fitting safety goggles EN166.

Protective clothing: Flame retardant antistatic protective clothing. Choose body protection according to the amount and

concentration of the hazardous substance at the workplace.

Hygien measures: Handle in accordance with good industrial hygiene and safety practice. General industrial hygiene

practice. Do not breathe spray. Avoid contact with skin, eyes and clothing. When using do not eat, drink or smoke. Wash hands before breaks and at end of work. Follow the skin protection plan. Wash

contaminated clothing before re-use.

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Environmental exposure controls:

General advice: Do not flush into surface water or sanitary sewer system. Further leakage or spillage if this is

possible without hazard. If the product contaminates rivers and lakes or drains inform respective

authorities.

Physical and chemical properties

9.1. Information on basis physical and chemical properties:

Value Unit Method Notice At

Appearance: aerosol Color: colorless Odor: characteristic

 $^{\circ}C$ Flash point: approx. -80 isobutane Vol. % Lower explosion limit: 1,8 isobutane Upper explosion limit: 10,80 Vol. % propane

0,786 g/cm³ Density: active substance

Water solubility: insoluble

9.2. Other information:

No data available.

10. Stability and reactivity

10.1. Reactivity:

No data available.

10.2. Chemical stability:

The product is chemical stable.

10.3. Possibility of hazardous reactions:

No decomposition if stored and applied. Vapors may form explosive mixtures with air. Because of the high vapor pressure of the vessels in temperature rise with risk of bursting.

10.4. Conditions to avoid:

Extremely flammable. Keep away from heat, sparks and open flames. Vapors may form explosive mixtures with air that are heavier than air. Protect from sunlight and temperatures above 50 ° C.

10.5. Incompatible materials:

No data available.

10.6. Hazardous decomposition products:

Hazardous decomposition Possible in case of fire / high temperatures the formation of hazardous / toxic fumes.

products::

11. Toxicological information

Acute toxicity:

Acute oral toxicity:

Hydrocarbons, C7, n-alkanes, $LD_{50} > 8 \text{ ml/kg (rat)}$

iso-alkanes, cyclic

Propan-2-ol $LD_{50} > 2000 \text{ mg/kg}$ $LD_{50} = 4.400 \text{ mg/kg (rat)}$ d-Limonene

Acute inhalation toxicity:

Hydrocarbons, C7, n-alkanes, $LC_{50} > 23.3$ mg/l (rat, 4 h)

iso-alkanes, cyclic

Propan-2-ol $LC_{50} > 20 \text{ mg/l}$

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Acute dermal toxicity:

Hydrocarbons, C7, n-alkanes, $LD_{50} > 4 \text{ ml/kg (rat)}$

iso-alkanes, cyclic

Propan-2-ol $LD_{50} > 2000 \text{ mg/kg}$

d-Limonene $LD_{50} > 2.000 \text{ mg/kg (rabbit)}$

Skin corrosion/irritation: Cause irritation. **Serious eye damage/eye** Cause irritation.

irritation:

Respiratory or skin

Possible sensitization through the skin.

sensitization:

Germ cell mutagenicity: No data available
Carcinogenicity: No data available
Reproductive and No data available

developmental toxicity:

Other information: Drowsiness and dizziness. Irritation and dermatitis, weakness.

12. Ecological information

12.1. Toxicity:

Toxicity to fish:

Hydrocarbons, C7, n-alkanes, LL/EL/IL50 >1 - <= 10 mg/l

iso-alkanes, cyclic

Propan-2-ol 100 < LC/EC/IC50 <= 1000 mg/l

Toxicity to Daphnia:

Hydrocarbons, C7, n-alkanes, LL/EL/IL50 >1 - <= 10 mg/l

iso-alkanes, cyclic

Propan-2-ol LC/EC/IC50 > 1000 mg/l

Toxicity to algae:

Hydrocarbons, C7, n-alkanes, LL/EL/IL50 > 10 - <= 100 mg/l

iso-alkanes, cyclic

Propan-2-ol LC/EC/IC50 > 1000 mg/l

Toxicity to bacteria:

 $Hydrocarbons, \ C7, \ n\text{-}alkanes, \quad LL/EL/IL50 > 10 \ - <= 100 \ mg/l$

iso-alkanes, cyclic

Propan-2-ol LC/EC/IC50 > 1000 mg/l

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:

No data available.

12.6. Other adverse effects:

The penetration of the product into drains, water courses or the soil should be prevented.

13. Disposal considerations

13.1. Product:

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Waste key number: 160504* = Accumulators containing certain dangerous gases in pressurized containers.

* = The disposal must be provided.

Recommendation: Do not open, even after use or burn.

Disposal according to official regulations.

13.2. Packaging:

Waste key number: 150110 = Packaging containing residues of hazardous substances or

contaminated by dangerous substances

Recommendation: Drain thoroughly and completely as possible. Disposal according to official regulations.

14. Transport information

ADR

UN number: 1950

Product designation: AEROSOLS

Class: 2
Packaging group: -Code: 5F
Label: 2.1
Limited quantities: 1 L
Tunnel restriction code: (D)
Dangerous for the yes

environment:

RID

UN number 1950

Product designation: AEROSOLS

Class: 2
Packaging group: -Code: 5F
Label: 2.1
Hazard identification No. 23
Limited quantities: LQ2
Tunnel restriction code: (D)
Environmentally hazardous: yes

Special precautions for user:

See chapter: 6, 7 and 8

15. Regulatory information

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

Council Directive		Quantity 1	Quantity 2
(96/82/EC):	Extremely flammable	10 t	50 t
	Dangerous for the	200 t	500 t

Contains: >30% hydrocarbons, d-Limonene

environment

Petroleum 2.500 t 25.000 t

According to EC Detergents

Regulation EC 648/2004:

VOC: 753 g/l = 97 %

VOC (Directive 1999/13/EG):

2

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15.2. Chemical safety assessment:

No data available.

16. Other information

Full text of R-phrases referred to under sections 2 and 3:

R10	Flammable.
R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R38	Irritating to skin.
R43	May cause sensitization by skin contact.
R65	Harmful: May cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapors may cause drowsiness and dizziness.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-statements referred to under sections 2 and 3:

in text of 11-3	statements referred to under sections 2 and 5.
H220	Extremely flammable gas.
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Changes:

- Item 2
- Item 8.1
- Item 9.1
- Item 15.1