Printing date 22.09.2016 Version number 302 Revision: 22.09.2016

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

· 1.1 Product identifier

· Trade name: PTFE-Spray

· Article number: -

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

· Sector of Use

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· Application of the substance / the mixture Lubricant

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Klostermann Chemie GmbH & Co. KG von-dem-Bussche-Münch-Str. 4 32339 Espelkamp

Tel.: 05772/6711 Fax: 05772/6799

www.klostermann-chemie.de

E-Mail: info@klostermann-chemie.de

- · Further information obtainable from: Product safety department
- · 1.4 Emergency telephone number:

Poison Control Center Mainz - 24 hour emergency service - phone: +49 (0) 6131/19240

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms







· Signal word Danger

(Contd. on page 2)

Printing date 22.09.2016 Version number 302 Revision: 22.09.2016

Trade name: PTFE-Spray

(Contd. of page 1)

· Hazard-determining components of labelling:

 $Naphtha\ (petroleum),\ hydrotreated\ light\ (Benzene < 0.1\%)$

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

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.

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

P271 Use only outdoors or in a well-ventilated area.

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

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

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

· Additional information:

Buildup of explosive mixtures possible without sufficient ventilation.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
EINECS: 265-151-9	Naphtha (petroleum), hydrotreated light (Benzene < 0.1%) Stam. Liq. 2, H225; Sap. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	25-50%
CAS: 74-98-6	propane Flam. Gas 1, H220; Press. Gas C, H280	10- <25%
CAS: 106-97-8	butane Flam. Gas 1, H220; Press. Gas C, H280	10- <25%
	isobutane Flam. Gas 1, H220; Press. Gas C, H280	10- <25%
EINECS: 200-661-7	propan-2-ol	2.5-10%

· Nonhazardous components

9002-84-0 Polytetrafluoroethylene <2.5%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.

(Contd. on page 3)

Printing date 22.09.2016 Version number 302 Revision: 22.09.2016

Trade name: PTFE-Spray

(Contd. of page 2)

· After inhalation:

Supply fresh air.

Seek medical treatment in case of complaints.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Can form explosive gas-air mixtures.
- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- · Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- 6.3 Methods and material for containment and cleaning up: Ensure adequate ventilation.
- · 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Use only in well ventilated areas.
- · Information about fire and explosion protection:



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray onto a naked flame or any incandescent material.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

(Contd. on page 4)

Printing date 22.09.2016 Version number 302 Revision: 22.09.2016

Trade name: PTFE-Spray

(Contd. of page 3)

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions: None.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

106-97-8 butane

WEL Short-term value: 1810 mg/m³, 750 ppm

Long-term value: 1450 mg/m³, 600 ppm

Carc (if more than 0.1% of buta-1.3-diene)

67-63-0 propan-2-ol

WEL Short-term value: 1250 mg/m³, 500 ppm Long-term value: 999 mg/m³, 400 ppm

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Short term filter device:

Filter A/P2

· Protection of hands:



Protective gloves

· Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.4 mm

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be

- · Eye protection: Recommendation: safety glasses with side protection shield
- · Body protection: Protective work clothing

Printing date 22.09.2016 Version number 302 Revision: 22.09.2016

Trade name: PTFE-Spray

(Contd. of page 4)

SECTION 9: Physical and chemi

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Aerosol
Colour: Colourless
Odour: Characteristic
Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Not applicable, as aerosol.

· Flash point: Not applicable, as aerosol.

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature: 260 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Not determined.

· Explosion limits:

Lower: 1.5 Vol %
Upper: 10.9 Vol %
• Oxidising properties Not determined.

· Vapour pressure at 20 °C: 4200 hPa

Density at 20 °C: 0.622 g/cm³
 Relative density Not determined.
 Vapour density Not determined.
 Evaporation rate Not applicable.

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic:Not determined.Kinematic:Not determined.

VOC (EC) % 625 g/l

• 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

GP

Printing date 22.09.2016 Version number 302 Revision: 22.09.2016

Trade name: PTFE-Spray

(Contd. of page 5)

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· I.D/I.C50	values	rolovant	for c	lassification:
LD/LCSU	ruiucs	i cicvuiii .	101 C	ussiiicaiioii.

64742-49-0 Naphtha (petroleum), hydrotreated light (Benzene < 0.1%)

		>5840 mg/kg (rat)
		>2920 mg/kg (rat)
Inhalative	LC50/4h	>25 mg/l (rat)

- · Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods:

Containers can be recycled if completely empty; if not, dispose product/containers as dangerous waste. Observe local regulations.

· European	waste catalogue
15 01 04	metallic packaging

(Contd. on page 7)

Printing date 22.09.2016 Version number 302 Revision: 22.09.2016

Trade name: PTFE-Spray

(Contd. of page 6)

16 05 04* gases in pressure containers (including halons) containing hazardous substances

14.1 UN-Number ADR, IMDG, IATA	UN1950
	0141750
14.2 UN proper shipping name	UN1050 AEDOCOLC ENVIDONMENTALI
ADR	UN1950 AEROSOLS, ENVIRONMENTALI HAZARDOUS
IMDG	AEROSOLS, MARINE POLLUTANT
IATA	AEROSOLS
14.3 Transport hazard class(es)	
ADR	
Class	2 5F Gases.
Label	2.1
IMDG, IATA	
2	
Class	2 Gases.
Label	2.1
14.4 Packing group	
ADR	Void
14.5 Environmental hazards:	
Marine pollutant:	Yes
14.6 Special precautions for user	Warning: Gases.
14.7 Transport in bulk according to Ann	
Marpol and the IBC Code	Not applicable.
Transport/Additional information:	11
ADR Limited quantities (LQ)	IL
Excepted quantities (EQ)	Code: E0
Encepted quantities (EQ)	Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	D
IMDG	
Limited quantities (LQ)	1L
Excepted quantities (\widetilde{EQ})	Code: E0
	Not permitted as Excepted Quantity
UN "Model Regulation":	UN1950, AEROSOLS, ENVIRONMENTALL
S .	HAZARDOUS, 2.1

Printing date 22.09.2016 Version number 302 Revision: 22.09.2016

Trade name: PTFE-Spray

(Contd. of page 7)

SECTION 15: Regulatory information

- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.
- · Exposure scenario(s)

Exposure scenario(s) of ingredients (if present) are available on request at:

info@klostermann-chemie.de

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

- · Department issuing SDS: Product safety department
- · Contact: Head of Product Safety Department
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases - Category 1

Aerosol 1: Aerosols - Category 1

Press. Gas C: Gases under pressure – Compressed gas

Flam. Liq. 2: Flammable liquids - Category 2

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

 $Asp.\ Tox.\ 1: Aspiration\ hazard-Category\ 1$

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

GB