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

1.1 Product identifier
PTFE-Spray

1.2 Relevant identified use of substance/preparation and use which is advised against
None

Relevant identified uses
To be used as lubricant or grease.

1.3 Details of the supplier of safety data sheet
Address: BOHLENDER GmbH, Waltersberg 8, D-97947 Grünsfeld
Tel./ Fax.: +49 9346 9286-0 / +49 9346 9286-51
E-Mail: info@bohlender.de
Internet: www.bohlender.de /www.bola.de / www.sicco.de

1.4 Emergency Telephone Number: +49 30-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Regulation (EC) No. 1272/2008

GHS02 Flame
Flammable aerosol 1 H222-H229 Extremely flammable aerosol. Pressurized container: May explode if heated

GHS07 Exclamation Mark

Eye Irrit. 2	H319	Causes serious eye irritation.
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects.

Classification as per directive 67/548/EEC or directive 1999/45/EC

R36: Irritating to eyes; Xi Irritant

R12: Extremely flammable.. F+: Extremely flammable
R52/53-67: Harmful to aquatic life, may cause long-term adverse effects in the aquatic environment. Vapours may cause drowsiness and dizziness.

Specific hazard advice for man and environment
Product has to be labelled due to the calculation method as per the latest valid version of the "General Classification Guideline for Preparations of the EC":
Attention! Pressurized container. Narcotic effects.

System of Classification:
The classification is conform to the latest EC-lists, but supplemented by additional information of technical literature and company information.

2.2 Label elements
Regulation (EC) No. 1272/2008
The product is classified and labelled according to CLP-regulation.

Hazard pictogram(s)


GHS02 Flame


GHS07

Signal word Danger

Hazard Statements

H222-H229	Extremely flammable aerosol. Pressurized container: May explode if heated.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P102	Keep out of reach of children.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P251	Pressurized container: Do not pierce or burn, even after use.
P211	Do not spray on an open flame or other ignition source.
P280	Wear eye protection/face protection.
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 not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container according to local/regional/national/international regulations.

Additional Information:
Pressurized container. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Do not pierce or burn, even after use.
Do not spray on an open flame or other ignition source. Keep away from ignition source - No smoking.

2.3 Other hazards

Results of PBT and vPvB evaluation
PBT: Not applicable
vPvB: Not applicable

SECTION 3: Composition/information on ingredients

3.1 Substances
None.

3.2 Mixtures

Description of the mixture:
Mixture consisting of the following substances with additives which do not require special labelling.

Hazardous ingredients:

References:	Description	Concentration
CAS-no.: 68476-40-4 EINECS: 270-681-9 Reg. no.: 01-2119486557-22-X	Hydrocarbons, C3-4 F+ R12 Flam. Gas 1, H220; Press. Gas, H280	50 – 100 %
CAS-no.: 67-64-1 EINECS: 200-662-2 Reg. no.: 01-2119471330-49-X	Acetone Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	10-<15 %
CAS-no.: 67-63-0 EINECS: 200-661-7 Reg. no.: 01-2119457558-25-X	Isopropyl, Xi R36; F R11, R67 Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	3-<10 %
CAS-no.: 64742-49-0 EINECS: 265-151-9 Reg. no.: 01-2119475133-43-X	Naphtha (petroleum) hydrotreated light Xn R65; Xi R38; F R11; N R51/53 R67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	3-<10 %

Additional Information:
See section 16 for the complete wording of the hazard statements.

SECTION 4: First aid measures

4.1 Description of First aid measures

General advice:
Immediately remove contaminated clothing.

Inhalation:
Move affected person to fresh air. Keep warm and in stable position. Get medical advice in case of discomfort.

Skin contact:
Wash with soap and water. Get medical advice in case of prolonged skin irritation.

Eye contact:
Flush with water for several minutes holding eyelids apart. Get medical advice in case of discomfort.

Ingestion:
Rinse mouth and drink plenty of water. Symptomatic treatment. Get medical advice in case of discomfort.

4.2 Most important symptoms and effects, both acute and delayed
No additional information available.

4.3 Indication of any immediate medical attention and special treatment needed
No additional information available.

SECTION 5: Fire fighting measures

5.1 Extinguishing media
Suitable extinguishing media:
CO_2, extinguishing powder or water spray jet. In case of heavy fire use alcohol-resistant foam.

For safety reasons inappropriate extinguishing media:
Full water jet.

5.2 Special hazards arising from the substance or mixture
Explosive gaseous mixtures can occur. Toxic gases can occur if product is heated or in case of fire.

5.3 Advice for fire-fighters
Special protective equipment
Do not inhale explosion fumes and fire gases. Use self-contained respirator (breathing apparatus with compressed air) in closed rooms.

Additional information
Cool closed containers located near the source of fire with water.
If possible remove containers from the fire.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Provide sufficient storage reservoir.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Provide sufficient ventilation. Keep away from sources of ignition. Do not inhale vapours. Observe precautions for safe handling (Section 7) and personal protective equipment (paragraph 8.2.2).

6.2 Environmental precautions
Strike down gas / vapours / fog with water spray jet. Isolate and seal defect containers immediately. In case of entry into water ways or drains, inform the responsible authorities. Do not allow to enter drains/surface water/ground water.

6.3 Methods and material for containment and cleaning up
Provide sufficient ventilation. Do not flush away with water or watery cleaning agents. Clean preferably with cleaning agents, do not use solvents if possible.

6.4 Reference to other sections
Precautions for safe handling (Section 7), personal protective equipment (paragraph 8.2.2), waste treatment methods (paragraph 13.1)

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Use only in ventilated areas. Provide good ventilation also on the floor (vapours are heavier than air). Avoid eye and skin contact. Protect from heat and direct sun light. Keep empty container away from heat and sources of ignition.

Advice on fire and explosion protection
Keep away from sources of ignition – No smoking.
Pressurized container. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Do not pierce or burn, even after use Do not spray on an open flame or other ignition source.

7.2 Conditions for safe storage including any incompatibilities
Requirements for storage rooms and vessels:
Protect from frost and direct sun light. Observe the official regulations on the storage of compressed gas containers.

Advice on joint storage:
Not necessary.

Further information on storage conditions:
Store in closed containers in a cool and dry place. Protect from heat and direct sun light.

Storage category:
2 B (aerosol dispenser and lighters) as per TRGS 510

Classification as per industrial safety regulations (BetrSichV):
none

7.3 Specific end uses
No information available.

GiS Code BS50

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational exposure limits
WEL: workplace exposure limit

Substance	CAS-no.	Reference	Exposure limit
Acetone	67-64-1	WEL (Germany) IOELV (European Union)	Long term: 1200 mg/m³, 500 ml/m³, 2(I);DFG, EU Long term: 1210 mg/m³, 500 ml/m³
Isopropyl	67-63-0	WEL (Germany)	Long term: 500 mg/m³, 200 ml/m³, 2(II);DFG, Y
Naphtha (petroleum) hydrotreated light	64742-49-0	MAC (Germany)	See paragraph Xb
Propane	74-98-6	WEL (Germany)	Long term: 1800 mg/m³, 1000 ml/m³, 4(II);DFG
Butane	106-97-8	WEL (Germany)	Long term: 2400 mg/m³, 1000 ml/m³, 4(II);DFG
Isobutane	75-28-5	WEL (Germany)	Long term: 2400 mg/m³, 1000 ml/m³, 4(II);DFG
Hydrocarbons, C3-4	68476-40-4	Dermal DNEL (worker, long-term, systemic)	23,4 mg/kg bw/day (human)

Biological limit values

Substance	CAS-no.	Reference	Exposure limit
Acetone	67-64-1	BGW (Germany)	80 mg/l Reference material: urine Time of sampling: end of exposure respectively end of working shift. Parameter: Acetone
Isopropyl	67-63-0	BGW (Germany)	25 mg/l Reference material: whole blood Time of sampling: end of exposure respectively end of working shift. Parameter: Acetone
Isopropyl	67-63-0	BGW (Germany)	25 mg/l Reference material: urine Time of sampling: end of exposure respectively end of working shift. Parameter: Acetone

Additional information: Values are based on lists valid at time of creation.

8.2 Exposure controls

Personal protective equipment
Advices on general protective and hygiene measures:
Do not eat, drink, smoke, snuff when using the product. Wash hands before breaks and after work. Do not inhale gas, vapours, aerosols.

Respiratory protection:
Not required if sufficient ventilation is provided. In case of insufficient ventilation use respiratory protection: filter AX.

Hand protection:
The material of the gloves should be impervious and resistant against the product / substance / mixture. A recommendation for the glove material cannot be given as there are no test data available for this product / substance / mixture. Consider penetration time, permeability rate degradation rate for determining the glove material.

Glove material:
The selection of a suitable glove material depends on the material as well as on other quality characteristics and may differ from manufacturer to manufacturer. Since this product is a mixture of several substances, the resistance of the glove material should be predictable and has to be checked prior to use.

Permeation time of the glove material
The exact penetration time is to be obtained from the glove manufacturer and must be observed At lamination strength of 0,4 mm, the permeation time is longer than 480 minutes.
Gloves of the following material are suitable for permanent use: Butyl rubber
Gloves of the following material are suitable for a contact of maximum 15 minutes: Nitrile rubber

Eye protection:
Tight sealing protection goggles.

Body protection:
Not necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state / form:	Aerosol
Appearance / odour:	Colourless, flavourful
Odour threshold:	Not defined
pH	Not defined
Boiling point:	-44 °C
Melting point:	Not defined
Flammability (solid / gas):	Not applicable
Explosive properties:	Not defined
Oxidizing properties:	Not classified
Flash point:	-97 °C
Ignition temperature:	328 °C
Lower explosion limit (LEL):	1,1 % by volume
Upper explosion limit (UEL):	15 % by volume
Relative density:	Not defined
Evaporation rate:	Not defined
Water solubility:	Not soluble
N-octanol-water partition coefficient:	Not defined
Vapour density:	Not applicable
Decomposition temperature:	Not defined
Viscosity, dynamic:	Not defined
Viscosity, kinetic	Not defined

9.2 Other information
No other relevant information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability.
Thermal decomposition and conditions to avoid:
No decomposition products when stored and handled according to provisions.

10.3 Possibility of hazardous reactions
Inflammable compositions in air possible if heated over flash point and/or during spraying or misting.

10.4 Conditions to avoid
No other relevant information available.

10.5 Incompatible materials
Strong oxidizing agents.

10.6 Hazardous decomposition products
No decomposition products when stored and handled according to provisions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Substance	Exposure route	Species:	Value
Hydrocarbons, C3-4, 68476-40-4	Inhalation	Mouse	LC50 1237 mg/l/2h
Naphtha (petroleum) hydrotreated light	Oral	Rat	LD50 >6000 mg/kg
Naphtha (petroleum) hydrotreated light	Dermal	Rabbit	LD50 >3000 mg/kg
Naphtha (petroleum) hydrotreated light	Inhalation	Rat	LC50 >32 mg/l/4h

Skin corrosion/irritation
Frequent and permanent skin contact can cause skin irritations.

Eye damage/irritation
Dashes can cause temporary eye irritation.

Sensitisation
No sensitising effects known.

Additional toxicological information
Vapours induce narcotic effects.
Inhalation of concentrated vapours and oral absorption cause narcotic-like effects, headache, dizziness, etc.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Substance	CAS-no.	Species	Value
Naphtha (petroleum) hydrotreated light	64742-49-0	Pseudokirchnerialla subcapitata	EC50 (static): 3,7 mg/l/96h (OECD 201)
Naphtha (petroleum) hydrotreated light	64742-49-0	Daphnia magna	EC50 (static): 4,5 mg/l/48h (OECD 202)
Naphtha (petroleum) hydrotreated light	64742-49-0	Pimephales promelas	LC50: 8,2 mg/l/96h (EPA 66013-75-009)

12.2 Persistence and degradability
No other relevant information available.
Other advices: No additional information available for the composition.

12.3 Bioaccumulative potential
No other relevant information available.

12.4 Mobility in soil
No other relevant information available.

Other ecological information

General advice:
Water hazard class 1 (self-assessment): slightly hazardous to water. Do not allow undiluted product / product in larger quantities to enter drains/surface water/ground water .

12.5 Results of PBT and vPvB assessment
PBT: not applicable.
vPvB: not applicable.

12.6 Other adverse effects
No other relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation: All stated waste codes are recommendations with regards to the anticipated use of the product.

Recommended waste codes / waste names (European waste catalogue)	
14 00 00	Waste organic solvents, refrigerants and propellants (except 07 and 08),
14 06 00	waste organic solvents, refrigerants and foam/aerosol propellants
14 06 03	Waste other solvents and solvent mixtures

Uncleaned packages
Recommendation: Non-contaminated packages may be recycled. Packing which cannot be properly cleaned must be disposed in the same way as the product itself.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA	UN195

14.2 UN Proper shipping name

ADR	1950 Aerosol dispenser
IMDG	AEROSOLS
IATA	AEROSOLS, flammable

14.3 Transport hazard classes

ADR	 **Class:** 2 5F Gas **Hazard label:** 2.1

IMDG, IATA	 **Class** 2.1 **Label** 2.1

14.4 Packing group

ADR, IMDG, IATA	Non-applicable

14.5 Environmental hazard

Marine pollutant	No

14.6 Special precautions for user

Attention	Gas
Kemler Number:	not defined
EMS No.:	F-D, S-U

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Annex II of MARPOL 73/78 and the IBC Code	non-applicable

Transport / additional advice

ADR	Limited quantity (LQ): 1 L Exempted quantity (EQ): Code E0, not permitted in exempted quantities. Transport category: 2 Tunnel restriction code: D
UN “Model Regulation”	UN 1950, Aerosol dispenser, 2.1

SECTION 15: Regulatory information

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

Labelling as per Regulation (EC) No. 1272/2008
Product is classified and labelled as per CLP.

Hazard pictograms

GHS02 Flame

GHS07

Signal word Danger

Hazard Statements

H222-H229	Extremely flammable aerosol. Pressurized container: May explode if heated.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P102	Keep out of reach of children.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P251	Pressurized container: Do not pierce or burn, even after use.
P211	Do not spray on an open flame or other ignition source.
P280	Wear protective eye protection/face protection.
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 not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container according to local/regional/national/international regulations.

National regulations

Classification as per industrial safety regulations (BetrSichV):

Water hazard class
Water hazard class 1 (self-assessment): slightly hazardous to water

Technical instruction air

Class	Percentage of total
III	5 - < 10 %
NK	10 - < 25 %

Substances of very high concern (SVHC) according to REACH, paragraph 57
Product does not contain any substances of very high concern.

15.2 Material safety evaluation
A material safety evaluation has not been made.

SECTION 16: Other information

The information given in this data sheet is based on our current technical knowledge, however it is no assurance of product properties and does not justify a contractual legal relationship.

Relevant sentences

H222	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.
R11	Extremely flammable
R12	Highly flammable
R36	Irritating to eyes
R38	Irritating to skin
R51/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

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)
DNEL: Derived No-Effect Level (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Gas 1: Flammable gases, Hazard Category 1
Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
Press. Gas: Gases under pressure: Compressed gas
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

Change index

Revision	Date:	Reason for change:	Changed paragraphs:
00	11.07.2016	Initial creation	
01	12.07.2016	New emergency telephone no.	Section 1, 1.4

	Date / Name	**For questions contact:**	see 1.3
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