

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.04.2014

Revision: 03.04.2014

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

- **Product identifier**
- **Trade name:** METAFLUX 70-19 Protect Spray
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Clear coating material, Varnish
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Techno Service GmbH
Detmolder Strasse 515
D-33605 Bielefeld
Germany
++49 521 924440
www.metaflux-ts.de
- **Further information obtainable from:**
Sales Department
++49 521 92444-0
- **Emergency telephone number:**
Central Phone Number
++49 521 924440

2 Hazards identification

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

Flam. Aerosol 1	H222-H229	Extremely flammable aerosol. Pressurised container: May burst if heated.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.
Skin Irrit. 2	H315	Causes skin irritation.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
F+; Extremely flammable

R12:	Extremely flammable.
R52/53-66-67:	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.
- **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.
Warning! Pressurized container.
Has a narcotizing effect.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The labelling of an aspiration hazard (Asp. Tox. 1 H304) is not required for aerosols and containers with a sealed spray attachment (Regulation (EC) 1272/2008, Annex I, 1.3.3).
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS02

GHS07

GHS09

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Trade name: **METAFLUX 70-19 Protect Spray**

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· **Signal word** *Danger*· **Hazard-determining components of labelling:***Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane*· **Hazard statements***H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.**H315 Causes skin irritation.**H411 Toxic to aquatic life with long lasting effects.*· **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.**P260 Do not breathe spray.**P211 Do not spray on an open flame or other ignition source.**P280 Wear protective gloves / eye protection.**P391 Collect spillage.**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 regulations.*· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 106-97-8 EINECS: 203-448-7	butane  F+ R12 ⚠ Flam. Gas 1, H220; Press. Gas, H280	25-50%
CAS: 64742-49-0 EC number: 921-024-6 Reg.nr.: 01-2119475514-35-xxxx	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane  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	15-<20%
CAS: 74-98-6 EINECS: 200-827-9	propane  F+ R12 ⚠ Flam. Gas 1, H220; Press. Gas, H280	10-<25%
EC number: 927-241-2 Reg.nr.: 01-2119471843-32	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics  Xn R65 R10-52/53-66-67 ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ STOT SE 3, H336; Aquatic Chronic 3, H412	3-<10%
CAS: 123-86-4 EINECS: 204-658-1	n-butyl acetate R10-66-67 ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	3-<10%
CAS: 1569-02-4 EINECS: 216-374-5	1-ethoxypropan-2-ol R10-67 ⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	3-<10%

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












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CAS: 75-28-5 EINECS: 200-857-2	isobutane  F+ R12  Flam. Gas 1, H220; Press. Gas, H280	2.5-<3%
CAS: 110-82-7 EINECS: 203-806-2	cyclohexane  Xn R65;  Xi R38;  F R11;  N R50/53 R67  Flam. Liq. 2, H225;  Asp. Tox. 1, H304;  Aquatic Acute 1, H400;  Aquatic Chronic 1, H410;  Skin Irrit. 2, H315; STOT SE 3, H336	1-<2.5%
CAS: 110-54-3 EINECS: 203-777-6	n-hexane  Xn R48/20-62-65;  Xi R38;  F R11;  N R51/53 R67 Repr. Cat. 3  Flam. Liq. 2, H225;  Repr. 2, H361f; STOT RE 2, H373;  Asp. Tox. 1, H304;  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315; STOT SE 3, H336	0.3-<1%

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

4 First aid measures

- **Description of first aid measures**
- **General information:**
Take affected persons out into the fresh air.
Do not leave affected persons unattended.
Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Wash with water and soap
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Do not induce vomiting; call for medical help immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **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
- **Special hazards arising from the substance or mixture** Risk of bursting in case of fire heat
- **Advice for firefighters**
- **Protective equipment:** Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Particular danger of slipping on leaked/spilled product.
Keep away from ignition sources.
Avoid contact with skin / eyes and inhalation.
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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- **Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Avoid inhalation and contact with the skin and the eyes.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurized 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.
Do not spray onto a naked flame or any incandescent material.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Recommended storage temperature:** 15 - 35 °C, max. 50 °C
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

106-97-8 butane	
WEL (Great Britain)	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
64742-49-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane	
TWA (8H) (Great Britain)	Long-term value: 1000 mg/m ³ , 250 ppm
123-86-4 n-butyl acetate	
WEL (Great Britain)	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
110-54-3 n-hexane	
WEL (Great Britain)	Long-term value: 72 mg/m ³ , 20 ppm
IOELV (EU)	Long-term value: 72 mg/m ³ , 20 ppm

- **Additional information:** The lists valid during the making were used as basis.

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Do not eat, drink, smoke or sniff while working.
- **Respiratory protection:**
Not necessary if room is well-ventilated.
Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**
- **Material of gloves** If contamination is possible, use gloves made of nitrile according EN 374
- **Penetration time of glove material** > 480 min / 0,4 mm thickness
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Aerosol
Colour:	Colourless
Odour:	Solvent-like
Odour threshold:	Not determined.

· **pH-value:** Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-44 °C value concerns to propellant

· **Flash point:** -97 °C
concerns to propellant

· **Ignition temperature:** 240 °C

· **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Risk of bursting at temperatures > 50 °C. Damage of the container may lead to the formation of explosive mixtures of gas/vapors with air.

· Explosion limits:

Lower:	0.8 Vol %
Upper:	10.9 Vol %
Pressure (20 °C)	2,5 - 4,5 bar

· **Density at 20 °C:** 0.668 g/cm³

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Solvent content:

Organic solvents:	42.3 %
VOC (EC)	617.5 g/l

· **Other information** No further relevant information available.

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· **Additional information** Vapors are heavier than air.**10 Stability and reactivity**

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
Avoid warming and the near of open flames / ignition sources (e.g. sparks).
Risk of bursting at temperatures >50 °C.
- **Possibility of hazardous reactions**
By use or incidental release the formation of explosive vapor/air mixtures is possible.
- **Conditions to avoid** Temperatures >50 °C
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:** Stable for a storage time of min. 24 months

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

64742-49-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane

Oral	LD50	> 2000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 5 mg/l (rat)

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rab)
Inhalative	LC50/4 h	>5 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** low irritant - no duty to declare
- **on the eye:** low
- **Sensitization:** No sensitizing effects known.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

64742-49-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane

LC 50 / 96 h < 10 mg / l (fis)

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics

LC 50 / 96 h >100 mg / l (fis)

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish

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- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations





- **Waste treatment methods**
- **Recommendation**
empty cans: material recycling
filled cans: remove in accordance with local regulations

- **European waste catalogue**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 04*	gases in pressure containers (including halons) containing dangerous substances

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
 - **ADR, IMDG, IATA** UN1950
 - **UN proper shipping name**
 - **ADR** 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS
 - **IMDG** AEROSOLS (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane, HEXANES), MARINE POLLUTANT
 - **IATA** AEROSOLS, flammable
 - **Transport hazard class(es)**
 - **ADR**
- 

- **Class** 2 5F Gases.
 - **Label** 2.1
-
- **IMDG**
- 

- **Class** 2.1

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· **Label** 2.1· **IATA**· **Class** 2.1· **Label** 2.1· **Packing group**· **ADR, IMDG, IATA** Void· **Environmental hazards:**· **Marine pollutant:** No
Symbol (fish and tree)· **Special marking (ADR):** Symbol (fish and tree)· **Special precautions for user** Warning: Gases.· **Danger code (Kemler):** -· **EMS Number:** F-D,S-U· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.· **Transport/Additional information:**· **ADR**· **Limited quantities (LQ)** 1L· **Transport category** 2· **Tunnel restriction code** D

· **Remarks:** Transportation as "LIMITED QUANTITIES" according 3.4 ADR is possible.
Sole marking: Sign for "Limited Quantities" (rhombus with two black edges)
Entry in the transportation document: Transportation according chapter 3.4 ADR

· **UN "Model Regulation":** UN1950, AEROSOLS, ENVIRONMENTALLY HAZARDOUS, 2.1

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **National regulations:**· **Information about limitation of use:**

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

Class	Share in %
I	≤ 2,5
NK	25-50

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

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· Relevant phrases

- H220 Extremely flammable gas.
 H225 Highly flammable liquid and vapour.
 H226 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.
 H336 May cause drowsiness or dizziness.
 H361f Suspected of damaging fertility.
 H373 May cause damage to organs through prolonged or repeated exposure.
 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.
 H412 Harmful to aquatic life with long lasting effects.
- R10 Flammable.
 R11 Highly flammable.
 R12 Extremely flammable.
 R38 Irritating to skin.
 R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
 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.
 R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R62 Possible risk of impaired fertility.
 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 Harmonized 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)
 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
 Press. Gas: Gases under pressure: Liquefied gas
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Flam. Liq. 3: Flammable liquids, Hazard Category 3
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Repr. 2: Reproductive toxicity, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
 Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment - Acute Hazard, Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic 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

· * Data compared to the previous version altered.

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