

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.06.2015

Revision: 01.01.2017

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

- **1.1 Product identifier**
- **Trade name: Metaflux 70-11 Adhesive Spray**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Adhesives
- **1.3 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
- **1.4 Emergency telephone number:**
Canutec:
1-613-996-6666

SECTION 2: Hazards identification

- **2.1 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. |
| Eye Irrit. 2 | H319 | Causes serious eye irritation. |
| STOT SE 3 | H336 | May cause drowsiness or dizziness. |
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
Xi; Irritant

| | |
|---|----------------------|
| R36: | Irritating to eyes. |
| 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.
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.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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· **Hazard pictograms**

GHS02 GHS07 GHS09

· **Signal word** *Danger*· **Hazard-determining components of labelling:**

methyl acetate
 Hydrocarbons, C6, isoalkanes, <5% n-hexane
 Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics.
 cyclohexane

· **Hazard statements**

H222-H229 *Extremely flammable aerosol. Pressurised container: May burst if heated.*
 H315 *Causes skin irritation.*
 H319 *Causes serious eye irritation.*
 H336 *May cause drowsiness or dizziness.*
 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.*
 P211 *Do not spray on an open flame or other ignition source.*
 P280 *Wear protective gloves / eye protection.*
 P261 *Avoid breathing vapours.*
 P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
 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.*

· **Additional information:**

EUH066 *Repeated exposure may cause skin dryness or cracking.*

· **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 characterization: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

| | | |
|---|--|---------|
| CAS: 79-20-9 EINECS: 201-185-2 | methyl acetate Xi R36; F R11 R66-67 <hr style="border-top: 1px dashed black;"/> Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 | 25-50% |
| CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32 | butane F+ R12 Flam. Gas 1, H220; Press. Gas, H280 | 10-<25% |

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| | | |
|--|--|-----------|
| CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21 | propane F+ R12 Flam. Gas 1, H220; Press. Gas, H280 | 10-<25% |
| EC number: 931-254-9 Reg.nr.: 01-2119484651-34 | Hydrocarbons, C6, isoalkanes, <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 | 3-<10% |
| EC number: 927-510-4 Reg.nr.: 01-2119475515-33 | Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics. Xn R65; Xi R38; F R11; N R51/53 R67 Flam. Liq. 1, H224; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336 | 3-<10% |
| 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: 141-78-6 EINECS: 205-500-4 | ethyl acetate Xi R36; F R11 R66-67 Flam. Liq. 2, H225; Skin Irrit. 2, H319; STOT SE 3, H336 | 1-≤2.5% |
| CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27 | isobutane F+ R12 Flam. Gas 1, H220; Press. Gas, H280 | 1-≤2.5% |
| EC number: 926-605-8 Reg.nr.: 01-2119486291-36 | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane Xn R65; F R11; N R51/53 R66-67 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; 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 | 0.1-<0.3% |

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

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· After inhalation:

In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **After swallowing:** Do not induce vomiting; call for medical help immediately.

· **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.

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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** Risk of bursting in case of fire heat
- **5.3 Advice for firefighters**
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Mouth respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Avoid contact with skin / eyes and inhalation.
Ensure adequate ventilation
Keep away from ignition sources.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Let volatiles evaporate - stem up residues mechanically
- **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**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
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.
- **7.2 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:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Protect from heat and direct sunlight.
- **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.

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· 8.1 Control parameters**· Ingredients with limit values that require monitoring at the workplace:****79-20-9 methyl acetate**

| | |
|---------------------|---|
| WEL (Great Britain) | Short-term value: 770 mg/m ³ , 250 ppm Long-term value: 616 mg/m ³ , 200 ppm |
|---------------------|---|

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) |
|---------------------|---|

Hydrocarbons, C6, isoalkanes, <5% n-hexane

| | |
|-------------------------|---|
| RCP-TWA (Great Britain) | Long-term value: 1400 mg/m ³ |
|-------------------------|---|

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics.

| | |
|-------------------------|---|
| RCP-TWA (Great Britain) | Long-term value: 1400 mg/m ³ |
|-------------------------|---|

110-82-7 cyclohexane

| | |
|---------------------|--|
| WEL (Great Britain) | Short-term value: 1050 mg/m ³ , 300 ppm Long-term value: 350 mg/m ³ , 100 ppm |
| IOELV (EU) | Long-term value: 700 mg/m ³ , 200 ppm |

141-78-6 ethyl acetate

| | |
|---------------------|---|
| WEL (Great Britain) | Short-term value: 400 ppm Long-term value: 200 ppm |
|---------------------|---|

Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane

| | |
|-------------------------|---|
| RCP-TWA (Great Britain) | Long-term value: 1400 mg/m ³ |
|-------------------------|---|

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.

· 8.2 Exposure controls**· Personal protective equipment:****· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

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.

Not necessary if room is well-ventilated.

· Protection of hands:

Protective gloves

· **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

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· **Eye protection:**

Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form: Aerosol

Colour: Whitish

· **Odour:** Characteristic· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: -24 °C

· **Flash point:** Not applicable, as aerosol.· **Ignition temperature:** 235 °C· **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: 18.6 Vol %

Pressure (20 °C) 3 - 4 bar

· **Density at 20 °C:** 0.705 g/cm³· **Solubility in / Miscibility with water:** Slightly soluble.· **Solvent content:**

VOC (EC) 86.3 %

Solids content: 20.2 %

· **9.2 Other information** No further relevant information available.· **Additional information** Vapors are heavier than air.

SECTION 10: Stability and reactivity

· **10.1 Reactivity**· **10.2 Chemical stability**· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.· **10.3 Possibility of hazardous reactions**

By use or incidental release the formation of explosive vapor/air mixtures is possible.

· **10.4 Conditions to avoid** No further relevant information available.· **10.5 Incompatible materials:** Avoid contact with oxidizing agents.· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity:**

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

110-82-7 cyclohexane

| | | |
|------|------|-------------------|
| Oral | LD50 | 12705 mg/kg (rat) |
|------|------|-------------------|

· **Primary irritant effect:**

· **on the skin:** low irritant - no duty to declare

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

64742-49-0 Naphtha (petroleum), hydrotreated light

| | |
|--------------|-----------------------|
| LC 50 / 96 h | < 10 mg / l (daphnia) |
|--------------|-----------------------|

· **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.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **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.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **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**

· **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 |
|----------|---|

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

SECTION 14: Transport information

| | |
|---|---|
| · 14.1 UN-Number · ADR, IMDG, IATA | UN1950 |
| · 14.2 UN proper shipping name · ADR · IMDG · IATA | 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS AEROSOLS AEROSOLS, flammable |
| · 14.3 Transport hazard class(es) · ADR | |
|   | |
| · Class · Label | 2 5F Gases. 2.1 |
| · IMDG | |
|   | |
| · Class · Label | 2.1 2.1 |
| · IATA | |
|  | |
| · Class · Label | 2.1 2.1 |
| · 14.4 Packing group · ADR, IMDG, IATA | Void |
| · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): | No Symbol (fish and tree) Symbol (fish and tree) |
| · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: | Warning: Gases. - F-D,S-U |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR · Limited quantities (LQ) · Excepted quantities (EQ) | 1L Code: E0 Not permitted as Excepted Quantity |

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| | |
|-----------------------------------|---|
| · 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 |
| · IMDG | |
| · Limited quantities (LQ) | 1L |
| · Excepted quantities (EQ) | Code: E0 Not permitted as Excepted Quantity |
| · UN "Model Regulation": | UN1950, AEROSOLS, ENVIRONMENTALLY HAZARDOUS, 2.1 |

SECTION 15: Regulatory information

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

· **National regulations:**

| Class | Share in % |
|-------|------------|
| I | ≤ 2,5 |
| NK | 25-50 |

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

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.
H224 Extremely flammable liquid and vapour.
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.
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.
- R11 Highly flammable.
R12 Extremely flammable.
R36 Irritating to eyes.
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.
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.

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· 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)

VOC: Volatile Organic Compounds (USA, EU)

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. 1: Flammable liquids, Hazard Category 1

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

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 - AcuteHazard, 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

· * Data compared to the previous version altered.

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