

Safety Data Sheet according to EC-Regulation 91/155/EEC

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

Identification of the substance or preparation

Metaflux 70-16 Flüssig-Aluminium-Spray

Use of the substance/preparation

Coating

Company/undertaking identification

TECHNO-SERVICE GmbH Detmolder Str. 515 D-33605 Bielefeld
Telephone +49 521 924440 Telefax +49 521 207432

Emergency telephone / Office for advice

Advisory office in case of poisoning:

Telephone number of the company in case of emergencies:

Tel. +49 521 924440

2. Composition/information on ingredients

2.1 Chemical name	content %	symbol	R-phrases	CAS	EINECS, ELINCS
Dimethyl ether	40 - 60	F+	12		204-065-8
Naphtha (petroleum), hydrotreated light	1 - 5	F/Xn/N	11-51-53-65		265-151-9
Xylene	1 -< 12,5	Xn/Xi	10-20/21-38		215-535-7
Distillates (petroleum), hydrotreated light	0,5 -< 2,5	Xn/N	10-51-53-65-66		265-149-8
Solvent naphtha (petroleum), light arom.	15 -< 20	Xn/Xi/N	10-37-51-53-65-66-67		265-199-0

For complete wording of the R-phrases, refer to point 16.

3. Hazards identification

3.1 To people

See point 11 and 15.

Preparation is classified as hazardous in the sense of directive 1999/45/EC.

Product is extremely flammable.

When using: development of explosive vapour/air mixture possible.

Vapours may cause drowsiness and dizziness

3.2 To the environment

See point 12.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First aid measures

4.1 Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

Keep Data Sheet available.

4.2 Eye contact

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

4.3 Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

4.4 Ingestion

Consult doctor immediately - keep Data Sheet available.

4.5 Special resources necessary for first aid

n.g.

5. Fire-fighting measures**5.1 Suitable extinguishing media**

Dry extinguisher

Water jet spray

CO₂**5.2 Extinguishing media which must not be used for safety reasons**

High volume water jet

5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In case of fire the following can develop:

Oxides of carbon

Decomposition products

Gases hazardous to health

Irritating gases

Danger of explosion by prolonged heating.

5.4 Special protective equipment for fire-fighters

Protective respirator with independent air supply

According to size of fire

Full protection, if necessary

5.5 Further information

Dispose of contaminated extinction water according to official regulations.

6. Accidental release measures

Refer to point 13. and for personal protection refer to point 8.

6.1 Personal precautions

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid inhaling.

6.2 Environmental measures

If leakage occurs, dam up.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

6.3 Methods for cleaning up

If spray or gas escapes, ensure ample fresh air is available.

Active substance:

Collect using absorbant material (e.g. Universal binding medium), and dispose of according to point 13.

7. Handling and storage**7.1 Handling****Tips for safe handling:**

See point 6.1

Ensure good ventilation.

Keep away from sources of ignition - Do not smoke.

Do not use on hot surfaces.

General hygiene measures for the handling of chemicals are applicable.

Observe directions on label and instructions for use.

Do not use on hot surfaces.

Use working methods according to operating instructions.

7.2. Storage**Requirements for storage rooms and containers:**

Store products only unopened, in original packing.

Not to be stored in gangways or stair wells.

Do not store with flammable or self-igniting materials.

Observe regulations for keeping separated.

Observe special regulations for aerosols.

Observe TRG 300 (German regulation).

Special storage conditions:

See point 10.2

Keep protected from direct sunlight and temperatures over 50°C.

8. Exposure controls/personal protection

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the OES, MEL or MAK values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Chemical name	content %	OES, MEL, MAK, TRK	BMGV, BAT
Dimethyl ether	40 - 60	400 ppm (766 mg/m ³), 1000 ppm (1920 mg/m ³) (EC)	
Naphtha (petroleum), hydrotreated light	1 - 5	200 ppm (1000 mg/m ³)	
Xylene	1 < 12,5	50 ppm (220 mg/m ³), 221 mg/m ³ (EC)	650 mmol methyl hippuric acid/mol creatinine in urine
Distillates (petroleum), hydrotreated light	0,5 < 2,5	70 ppm (350 mg/m ³)	
Solvent naphtha (petroleum), light arom.	15 < 20	20 ppm (100 mg/m ³)	

8.1 Respiratory protection:

If OES-, MEL- or MAK-value is exceeded.

Gas mask filter A (EN 141)

8.2 Hand protection:

Recommended

Protective nitrile gloves (EN 374)

Protective hand cream recommended.

8.3 Eye protection:

Recommended

Tight fitting protective goggles (EN 166) with side protection, with danger of projections.

8.4 Skin protection:

Protective working garments (e.g. safety shoes EN 344, long-sleeved protective working garments)

Additional information on hand protection - No tests have been performed.

Selection made for preparations according to the best available knowledge and information on the ingredients.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

9. Physical and chemical properties

Physical state:	Aerosol
Substance:	Liquid
Colour:	n.v
Odour:	n.v.
pH-value undiluted:	n.v.
Boiling point / range (°C):	n.v.
Melting point / range (°C):	n.v.
Flash point (°C):	n.g.
Flammability (solid/gas):	Yes
Minimum limit of explosion:	3,4 Vol% *
Maximum limit of explosion:	18 Vol% *
Pressure:	
< 10 bar/50°C	
4,4-4,8bar/20°C	
* Dimethyl ether	

10. Stability and reactivity

10.1 Conditions to avoid

See point 7

Stable when handled and stored correctly.
Heating, open flame, ignition sources
Pressure increase will result in danger of bursting.

10.2 Materials to avoid

See point 7
Avoid contact with oxidizing agents.
Avoid contact with other chemicals.

10.3 Hazardous decomposition products

See point 5.3

11. Toxicological information

11.1 Acute toxicity and immediate effects

11.1.1 Ingestion, LD50 rat oral (mg/kg):	n.v.
11.1.2 Inhalation, LC50 rat inhal.(mg/l/4h):	n.v.
11.1.3 Skin contact, LD50 rat dermal (mg/kg):	n.v.
11.1.4 Eye contact:	n.v.

11.2 Delayed and chronic effects 11.2.1

Sensitization:	n.g.
11.2.2 Carcinogenicity:	n.g.
11.2.3 Mutagenicity:	n.g.
11.2.4 Reproductive toxicity:	n.g.
11.2.5 Narcosis:	Possible

11.3. Further information

Classification according to calculation procedure.

The following may occur:

Inhalation of fumes may have narcotic effect.

Effect on the central nervous system

Headaches

Dizziness

12. Ecological information

Water hazard class (Germany):	2
Self classification:	Yes (VwVwS)
Persistence and degradability:	n.v.
Behaviour in sewage plants:	n.v.
Aquatic toxicity:	
Toxicity to fish:	
LC50 Pimephales promelas 2695 mg/l/96h * LC50	
Salmo gairdneri 3082 mg/l/96h * Ecological	
toxicity:	n.v.
* Dimethyl ether	

13. Disposal considerations

13.1. for the material / preparation / residue

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances.

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

Recommendation:

Pay attention to local and national official regulations

E.g. dispose at suitable refuse site.

13.2 for contaminated packing material

See point 13.1

Pay attention to local and national official regulations

Do not perforate, cut up or weld uncleared container.

Residues may present a risk of explosion.

14. Transport information

General statements

UN-Number: 1950

Road/Rail-transport (ADR/RID)

Class/packing-group: 2/-

UN 1950 AEROSOLS

Classification code: 5F

LQ: 2

Transport by sea

IMDG-code: 2/- (class/packing-group)

EmS: F-D, S-U

Marine Pollutant: n.a

AEROSOLS

Transport by air

IATA: 2.1/- (class/secondary danger/packing-group)

Aerosols, flammable

Additional information:

Danger code and packing code on request.

15. Regulatory information**Classification according to Dangerous Product Regulations incl. EC Directives
(67/548/EEC and 1999/45/EC)**

Symbols: F+

Indications of danger:

Extremely flammable



R-phrases:

12 Extremely flammable.

52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

67 Vapours may cause drowsiness and dizziness.

S-phrases:

9 Keep container in a well-ventilated place.

23.g Do not breathe gas/vapour/spray.

35 This material and its container must be disposed of in a safe way.

51 Use only in well-ventilated areas.

Additions:

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Do not pierce or burn, even after use.

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

Keep away from sources of ignition - No smoking.

Keep out of the reach of children.

Without adequate ventilation, formation of explosive mixtures may be possible.

Observe restrictions: Yes

Observe youth employment law (German regulation).

Observe law on protection of expectant mothers (German regulation).

Observe restrictive guidelines 76/769/EEC, 1999/51/EC, 1999/77/EC

VOC 1999/13/EC ~ 83%

16. Other information

These details refer to the product as it is delivered.

Storage class VCI (Germany): 2 B

Revised points: 15

The following phrases represent the prescribed R-phrases for the ingredients (designated in point 2):

12 Extremely flammable.

11 Highly flammable.

51 Toxic to aquatic organisms.

53 May cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

10 Flammable.

20/21 Harmful by inhalation and in contact with skin.

38 Irritating to skin.

66 Repeated exposure may cause skin dryness or cracking.

37 Irritating to respiratory system.

67 Vapours may cause drowsiness and dizziness.

Legend:

n.a. = not applicable / n.v. = not available / n.g. = not checked / OES = Occupational exposure standard

MEL = Maximum exposure limit / BMGV = Biological monitoring guidance value / MAK = Maximum concentration for work place (Germany)

(Germany) / TRK = Technical guidance concentration (Germany) / BAT = Biological tolerance for work place (Germany)

VbF = Regulations for flammable liquids (Germany) / TRbF = Technical regulations for flammable liquids (Germany)

WGK = water hazard class (Germany) - WGK 3 = very hazardous, WGK 2 = hazardous, WGK 1 = slightly hazardous to water

VOC = Volatile organic compounds / AOX = Adsorbable organic halogen compounds

VvVwS = Administrative Order relating to substances hazardous to water (Germany)

The statements made here should describe the product with regard to the necessary safety precautions - they are

not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.