

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 70-45 Zink-Spray

Use of the substance/preparation

Corrosion protection

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	EINECS, ELINCS	CAS
Xylene	1 -< 12,5	Xn/Xi	10-20/21-38	215-535-7	1330-20-7
2-methoxy-1-methylethyl acetate	1 -< 20	Xi	10-36	203-603-9	108-65-6
Acetone	1 -< 20	F/Xi	11-36-66-67	200-662-2	67-64-1
Solvent naphtha (petroleum), light arom.	0,01 -< 1	Xn/Xi/N	10-37-51-53-65	265-199-0	64742-95-6
Zinc powder - zinc dust (stabilized)	25 - 40	N	50-53	231-175-3	7440-66-6
Dimethyl ether	30 - 60 0,1	F+	12	204-065-8	115-10-6
Zinc oxide	-< 2,5 1 -<	N	50-53	215-222-5	1314-13-2
Naphtha (petroleum), hydrodesulfurized heavy	10	Xn/N	10-51-53-65-66-67	265-185-4	64742-82-1

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.

3.2 To the environment

See point 12.

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

4. First aid measures

4.1 Inhalation

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

Keep Data Sheet available.

Respiratory arrest - Artificial respiration apparatus necessary.

4.2 Eye contact

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

4.3 Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately.

4.4 Ingestion

Do not induce vomiting. 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

CO2

Foam

Cool container at risk with water.

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,

In case of fire the following can develop:

Irritating gases

Danger of explosion by prolonged heating.

Toxic pyrolysis products.

5.4 Special protective equipment for fire-fighters

Protective respirator with independent air supply

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 inhalation, and contact with eyes or skin.

6.2 Environmental measures

If leakage occurs, dam up.

Prevent from entering drainage system.

Avoid release to the environment.

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, sand, kieselguhr) and dispose of according to point 13.

7. Handling and storage

7.1 Handling

Tips for safe handling:

See point 6.1

Handle only when appropriate ventilation system is activated.

Observe directions on label and instructions for use.

Keep away from sources of ignition - Do not smoke.

Ensure good ventilation.

Only use working methods according to operating instructions.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

7.2. Storage

Requirements for storage rooms and containers:

Not to be stored in gangways or stair wells.

Do not store with flammable or self-igniting materials.

Store products only unopened, in original packing.

Observe special regulations for aerosols.

Special storage conditions:

See point 10.2

Protect from direct sunlight and warming.

Store cool

Store in a dry place.

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	Xylene		
WEL-TWA: 50 ppm (220 mg/m ³) (WEL), 50 ppm (221 mg/m ³) (EC)	WEL-STEL: 100 ppm (441 mg/m ³) (WEL), 100 ppm (442 mg/m ³) (EC)	---	
BMGV: 650 mmol methyl hippuric acid/mol creatinine in urine, post shift (Xylene, o-, m-, p- or mixed isomers) (BMGV)	Other information:	Sk (WEL)	
Chemical Name	2-methoxy-1-methylethyl acetate		
WEL-TWA: 50 ppm (274 mg/m ³) (WEL), 50 ppm (275 mg/m ³) (EC)	WEL-STEL: 100 ppm (548 mg/m ³) (WEL), 100 ppm (550 mg/m ³) (EC)	---	
BMGV: ---	Other information:	Sk (WEL)	
Chemical Name	Acetone		
WEL-TWA: 500 ppm (1210 mg/m ³) (WEL, EC)	WEL-STEL: 1500 ppm (3620 mg/m ³) (OES)	---	
BMGV: ---	Other information:	---	
Chemical Name	Solvent naphtha (petroleum), light arom.		
WEL-TWA: 20 ppm (100 mg/m ³) (AG)	WEL-STEL: 4 (AG)	---	
BMGV: ---	Other information:	---	
Chemical Name	Dimethyl ether		
WEL-TWA: 400 ppm (766 mg/m ³) (WEL), 1000 ppm (1920 mg/m ³) (EC)	WEL-STEL: 500 ppm (958 mg/m ³) (WEL)	---	
BMGV: ---	Other information:	---	
Chemical Name	Naphtha (petroleum), hydrodesulfurized heavy		
WEL-TWA: 70 ppm (350 mg/m ³) (AG)	WEL-STEL: 4 (AG)	---	
BMGV: ---	Other information:	---	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value. | Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

- | | |
|------------------------------------|---|
| 8.1 Respiratory protection: | If OES or MEL is exceeded. |
| Filter AX EN 141 | |
| 8.2 Hand protection: | n.a. |
| With short-term contact: | |
| Protective nitrile gloves (EN 374) | |
| 8.3 Eye protection: | Tight fitting protective goggles with side protection (EN 166). |
| 8.4 Skin protection: | Protective working garments (e.g. safety shoes EN 344, long- sleeved protective working garments) |

According to operation.

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:	Characteristic
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

Vapour pressure: 4-5 bar/20°C, 8,5-9,5 bar/50°C

10. Stability and reactivity

10.1 Conditions to avoid

See point 7

Pressure increase will result in danger of bursting.

Heating, open flame, ignition sources

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

Ingestion, LD50 rat oral (mg/kg): n.v.

Inhalation, LC50 rat inhal.(mg/l/4h): n.v.

Skin contact, LD50 rat dermal (mg/kg): n.v.

Eye contact: n.v.

11.2 Delayed and chronic effects

Sensitization: n.g.

Carcinogenicity: n.g.

Mutagenicity: n.g.

Reproductive toxicity: n.g.

Narcosis: n.g.

11.3. Further information

No classification according to calculation procedure.

Inhalation of fumes may have narcotic effect.

Effects/damages the central nervous system

Irritation of the respiratory tract

Skin resorption

Harmful: may cause lung damage if swallowed.

12. Ecological information

Water hazard class (Germany):	2
Self classification:	Yes (VwVwS)
Persistence and degradability:	91,8%/28d *
Biodegradable **	
Behaviour in sewage plants:	n.v.
Aquatic toxicity:	See point 3.
Ecological toxicity:	n.v.

* Acetone

** Xylene

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

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/II (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:**Minimum amount regulations have not been taken into account.**

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+/N

Indications of danger: Extremely flammable

Dangerous for the environment

R-phrases:

12 Extremely flammable.

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

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases:

(2) Keep out of the reach of children.

9 Keep container in a well-ventilated place.

23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

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

(46) If swallowed, seek medical advice immediately and show this container or label.

51 Use only in well-ventilated areas.

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Additions: n.a.

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.

Observe restrictions: Yes

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

VOC 1999/13/EC ~ 69%

16. Other information

These details refer to the product as it is delivered.

Storage class VCI (Germany): 2 B

Revised points: 2

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

10 Flammable.

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

38 Irritating to skin.

36 Irritating to eyes.

11 Highly flammable.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

37 Irritating to respiratory system.

51 Toxic to aquatic organisms.

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

65 Harmful: may cause lung damage if swallowed.

50 Very toxic to aquatic organisms.

12 Extremely flammable.

Legend:

n.a. = not applicable / n.v., k.D.v. = not available / n.g. = not checked

OES = Occupational exposure standard / MEL = Maximum exposure limit / BMGV = Biological monitoring guidance value

AG = "Arbeitsplatzgrenzwert" (workplace limit value, Germany) / BG = "Biologischer Grenzwert" (biological limit value, Germany)

VbF = Regulations for flammable liquids (Austria)

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

VwVwS = 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.