

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 70-56 Edelstahl-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	EINECS, ELINCS	CAS
Xylene	1 - 12,5	Xn/Xi	10-20/21-38	215-535-7	1330-20-7
Acetone	10 - 30	F/Xi	11-36-66-67	200-662-2	67-64-1
Solvent naphtha (petroleum), light arom.	5 - 20	Xn	10-65	265-199-0	64742-95-6
n-Butanol	1 -< 5	Xn/Xi	10-22-37/38- 41-67	200-751-6	71-36-3
Naphtha (petroleum), hydrodesulfurized heavy	1 -< 2,5	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.

Total Xi below classification limit.

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.

Vapours may cause drowsiness and dizziness

3.2 To the environment

See point 12.

Hydrocarbons can be harmful to water.

4. First aid measures

4.1 Inhalation

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.

Keep Data Sheet available.

4.3 Skin contact

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

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

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:

Decomposition products
Gases hazardous to health
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.
Avoid skin contact.

6.2 Environmental measures

If leakage occurs, dam up.

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, sawdust), 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.
Recommended
Exposed employees should have regular medical check-ups.

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.
Observe regulations for keeping separated.
Store products only unopened, in original packing.
Observe special regulations for aerosols.
Observe TRG 300 (German regulation).
Do not store with oxidizing agents.

Special storage conditions:

See point 10.2

Protect from direct sunlight.

Store cool

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	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	n-Butanol		
WEL-TWA: ---	WEL-STEL: 50 ppm (154 mg/m ³)	---	
BMGV: ---	Other information: Sk		
Chemical Name	Naphtha (petroleum), hydrodesulfurized heavy		
WEL-TWA: 70 ppm (350 mg/m ³) (AG)	WEL-STEL: 4 (AG)	---	
BMGV: ---	Other information: ---		
Chemical Name	Butane		
WEL-TWA: 600 ppm (1450 mg/m ³)	WEL-STEL: 750 ppm (1810 mg/m ³)	---	
BMGV: ---	Other information: ---		
Chemical Name	n-butyl acetate		
WEL-TWA: 150 ppm (724 mg/m ³)	WEL-STEL: 200 ppm (966 mg/m ³)	---	
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:

Filter A (EN 141)

If OES or MEL is exceeded.

8.2 Hand protection:

8.3 Eye protection:

8.4 Skin protection:

Solvent resistant protective gloves (EN 374).

Tight fitting protective goggles with side protection (EN 166).

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:

Substance:

Colour:

Odour:

pH-value undiluted:

Boiling point/range (°C):

Melting point/range (°C):

Aerosol

Liquid

n.v.

n.v.

n.v.

-48 bis -1 *

n.v.

Flash point (°C):	n.g.
Flammability (solid/gas):	Yes
Vapour pressure:	3,8-4,8 bar/20°C, < 10,0 bar/50°C
* Butane	
* Propane	

10. Stability and reactivity

10.1 Conditions to avoid

See point 7

Danger of bursting (explosion) when heated.

Protect from direct sunlight.

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:	Possible
Carcinogenicity:	n.g.
Mutagenicity:	n.g.
Reproductive toxicity:	n.g.
Narcosis:	Possible

11.3. Further information

No classification according to calculation procedure.

The following may occur:

Inhalation of fumes may have narcotic effect.

Irritation of the respiratory tract

Irritation of the eyes

Allergic reaction possible.

12. Ecological information

Water hazard class (Germany):	2
Self classification:	Yes (VwVwS)
Persistence and degradability:	n.v.
Readily biodegradable (>70% OECD 301E *, 91%/28d **)	
Behaviour in sewage plants:	n.v.
Aquatic toxicity:	n.v.
Toxicity to fish:	
LC50 Leuciscus idus 141 mg/l *	
LC50 Lepomis macrochirus 8300 mg/l/96h **	
Toxicity to daphnia:	
EC50 Daphnia magna 72,8 mg/l/24h *	
EC50 Daphnia magna 12600 - 12700 mg/l/48h **	
Toxicity to algae:	
EC0 Scenedesmus quadricauda 320 mg/l *	
IC5 Scenedesmus quadricauda 7500 mg/l/8d **	
Ecological toxicity:	n.v.
Toxicity to bacteria:	
EC0 Pseudomonas putida 115 mg/l *	
EC5 Microcystis aeruginosa 530 mg/l/8d **	
EC5 Pseudomonas putida 1700 mg/l/16h **	
* n-butyl acetate	
** Acetone	

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

15 01 01 paper and cardboard packaging

15 01 04 metallic packaging

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:

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+

Indications of danger: Extremely flammable

R-phrases:

12 Extremely flammable.

67 Vapours may cause drowsiness and dizziness.

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

S-phrases:

(2) Keep out of the reach of children.

9 Keep container in a well-ventilated place.

23.f Do not breathe vapour/spray.

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

51 Use only in well-ventilated areas.

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.

Contains

Nickel
May produce an allergic reaction.

Observe restrictions: Yes
Observe youth employment law (German regulation).

16. Other information

These details refer to the product as it is delivered.

Storage class VCI (Germany): 2 B

Revised points: 2

TA air:

III

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.

11 Highly flammable.

36 Irritating to eyes.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

65 Harmful: may cause lung damage if swallowed.

22 Harmful if swallowed.

37/38 Irritating to respiratory system and skin.

41 Risk of serious damage to eyes.

51 Toxic to aquatic organisms.

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

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.