




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

- **1.1 Product identifier**
- **Trade name:** *METAFUX 70-3550 ROST-I-SOL*
- **UFI:** *EM91-K07S-V00X-QWS8*
- **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** *Coating material*
- **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*  
  
*info@metaflux.de    www.metaflux.de*
- **Further information obtainable from:**  
*Sales Department  
+49 521 92444-0*
- **1.4 Emergency telephone number:**  
*613-996-6666 24h*

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
*Flam. Liq. 3 H226 Flammable liquid and vapour.*

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- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
*The product is classified and labelled according to the CLP regulation.*
- **Hazard pictograms**
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- **GHS02**
- **Signal word** *Warning*
- **Hazard statements**  
*H226 Flammable liquid and vapour.*
- **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.  
P233        Keep container tightly closed.  
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray. P403+P235 Store in a well-ventilated place. Keep cool.  
P501        Dispose of container with content as special waste.*
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** *Not applicable.*
- **vPvB:** *Not applicable.*

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Revision: 10-09-2024

Trade name: METAFUX 70-3501 / METAFUX 70-3505 / METAFUX 70-3510 ROST-I-SOL

(Contd. of page 1)

### SECTION 3: Composition/information on ingredients

#### 3.2 Chemical characterisation: Mixtures

##### Description:

Mixture of substances listed below with nonhazardous compounds or compounds with no duty to declare.

##### Dangerous components:

CAS: 64-17-5 EINECS: 200-578-6 Reg.nr.: 01-2119457610-43	ethanol Flam. Liq. 2, H225; Eye Irrit. 2, H319	10-25%
CAS: 111-76-2 EINECS: 203-905-0 Reg.nr.: 01-2119475108-36	2-butoxyethanol Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	≤2.5%
CAS: 1336-21-6 EINECS: 215-647-6 Reg.nr.: 01-2119488876-14	ammonia Skin Corr. 1B, H314; Aquatic Acute 1, H400	<0.25%

Additional information: For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

##### General information:

Take affected persons out into the fresh air.

Do not leave affected persons unattended.

##### After inhalation:

Supply fresh air; consult doctor in case of complaints.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

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

##### After eye contact:

Rinse opened eye for several minutes under running water.

Seek medical treatment.

##### After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

#### 4.2 Most important symptoms and effects, both acute and delayed

Intensive inhalation may cause:

Dizziness

Headache

Nausea

#### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing agents:

CO<sub>2</sub>, 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

No further relevant information available.

#### 5.3 Advice for firefighters

##### Protective equipment: Wear fully protective suit.

(Contd. on page 3)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Revision: 10-09-2024

**Trade name: METAFUX 70-3501 / METAFLUX 70-3505 / METAFLUX 70-3510 ROST-I-SOL**

(Contd. of page 2)

· **Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

**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.

Particular danger of slipping on leaked/spilled product.

Keep sources of ignition (flames, sparks, etc.) away. Do not use engines near by (potential source of ignition)

· **6.2 Environmental precautions:**

Do not allow to penetrate the ground/soil.

Do not allow product to reach sewage system or any water course.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

· **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**

Do not eat, drink or smoke when using the product.

Avoid inhalation and contact with the skin and the eyes.

Ensure good ventilation/exhaustion at the workplace.

Wash hands after using the product.

· **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **Information about storage in one common storage facility:** Store away from oxidising agents.

· **Further information about storage conditions:**

Store in cool, dry conditions in well sealed receptacles.

Protect from frost.

· **Storage class:** 3

· **7.3 Specific end use(s)** No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

· **8.1 Control parameters**

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

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

**64-17-5 ethanol**

WEL (Great Britain) Long-term value: 1920 mg/m<sup>3</sup>, 1000 ppm

**111-76-2 2-butoxyethanol**

WEL (Great Britain) Short-term value: 246 mg/m<sup>3</sup>, 50 ppm  
Long-term value: 123 mg/m<sup>3</sup>, 25 ppm  
Sk, BMGV

IOELV (EU) Short-term value: 246 mg/m<sup>3</sup>, 50 ppm  
Long-term value: 98 mg/m<sup>3</sup>, 20 ppm  
Skin

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Revision: 10-09-2024

Trade name: METAFUX 70-3501 / METAFUX 70-3505 / METAFUX 70-3510 ROST-I-SOL

(Contd. of page 3)

· **DNELs****64-17-5 ethanol**

Oral	DNEL Endverbraucher/ Consumers /Consommateur	87 mg/kg BW/ day (.) systemische Wirkung
Dermal	DNEL - Endverbraucher/ Consumers /Consommateur	206 mg/kg BW /day (.) systemische Wirkung
	DNEL Arbeiter / Workers/ Travailleur	343 mg/kg BW /day (.) systemische Wirkung

**111-76-2 2-butoxyethanol**

Oral	DNEL Endverbraucher/ Consumers /Consommateur	13.4 mg/kg BW/ day (.)
Dermal	DNEL - Endverbraucher/ Consumers /Consommateur	44.5 mg/kg BW /day (.)
	DNEL Arbeiter / Workers/ Travailleur	89 mg/kg BW /day (.)
Inhalative	DNEL Endverbraucher/ Consumers /Consommateur	426 mg /m3 (.)
	DNEL Arbeiter / Workers/ Travailleur	246 mg /m3 (.)

· **Ingredients with biological limit values:****111-76-2 2-butoxyethanol**

BMGV (Great Britain)	240 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: butoxyacetic acid
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· **Additional information:** The lists valid during the making were used as basis.· **8.2 Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.· **Respiratory protection:** Not necessary if room is well-ventilated.· **Protection of hands:**· **Material of gloves:** Butyl rubber, BR (EN 374)· **Penetration time of glove material:** > 480 min / 0,5mm· **Eye protection:** Safety glasses· **Body protection:** Protective work clothing**SECTION 9: Physical and chemical properties**· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:	Liquid
Colour:	Black
Odour:	Recognisable
Odour threshold:	Not determined.

· **pH-value at 20 °C:** 7.3-8.5· **Change in condition**

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	78 °C Initial boiling point of the solvent

· **Flash point:** 42 °C· **Flammability (solid, gas):** Not applicable.· **Ignition temperature:** 425 °C· **Decomposition temperature:** Not determined.

(Contd. on page 5)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Revision: 10-09-2024

Trade name: METAFUX 70-3501 / METAFLUX 70-3505 / METAFLUX 70-3510 ROST-I-SOL

(Contd. of page 4)

· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b> <b>Lower:</b> <b>Upper:</b>	3.5 Vol % 15 Vol % The explosion limits concern to the solvents as pure substances.
· <b>Oxidising properties</b>	none
· <b>Vapour pressure:</b> · <b>Pressure (20°C)</b>	Not determined. Not determined
· <b>Density at 20 °C:</b> · <b>Relative density</b> · <b>Vapour density</b> · <b>Evaporation rate</b>	0.98-1.00 g/cm <sup>3</sup> Not determined. Not determined. Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b> <b>Dynamic:</b> <b>Kinematic:</b>	Not determined. Not determined.
· <b>Solvent content:</b> <b>Organic solvents:</b> <b>VOC (EC)</b>	14 % 14.00 % / ma. 140 g/l
· <b>9.2 Other information</b>	
<b>Additional information</b>	Vapors are heavier than air.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** In case of fire the formation of toxic decomposition products.
- **Thermal decomposition / conditions to be avoided:**  
Avoid warming and the near of open flames / ignition sources (e.g. sparks).
- **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** Avoid the use in the near of ignition sources.
- **10.5 Incompatible materials:**  
Oxidizing agents.  
Strong acids and bases.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

**64-17-5 ethanol**

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/l (rat)

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Revision: 10-09-2024

Trade name: METAFUX 70-3501 / METAFUX 70-3505 / METAFUX 70-3510 ROST-I-SOL

(Contd. of page 5)

**111-76-2 2-butoxyethanol**

Oral	LD50	1,480 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
Inhalative	LC50/4 h	2.21 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**· **12.1 Toxicity**· **Aquatic toxicity:****64-17-5 ethanol**

LC 50 / 96 h | 8,150 mg / l (gol)

- **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.
- **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.
- **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** Hand over to hazardous waste disposers.

· **European waste catalogue**

07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 07 00	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 01*	aqueous washing liquids and mother liquors
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

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

(Contd. on page 7)



**Safety data sheet**  
according to 1907/2006/EC, Article 31



Revision: 10-09-2024

Trade name: METAFUX 70-3501 / METAFUX 70-3505 / METAFUX 70-3510 ROST-I-SOL

(Contd. of page 6)

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

**SECTION 14: Transport information**

· 14.1 UN-Number · ADR, IMDG, IATA	UN1993
· 14.2 UN proper shipping name · ADR · IMDG · IATA	1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL)) FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL)) FLAMMABLE LIQUID, N.O.S. (ETHANOL)
· 14.3 Transport hazard class(es) · ADR	
	
· Class · Label	3 (F1) Flammable liquids. 3
· IMDG, IATA	
	
· Class · Label	3 Flammable liquids. 3
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Stowage Category	Warning: Flammable liquids. 30 F-E,S-E A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category · Tunnel restriction code · Remarks:	3 D/E Hazardous goods under the transport regulations listed above may be subject to special regulations. For details please consult the relevant transport regulations

(Contd. on page 8)

GB

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Revision: 10-09-2024

**Trade name: METAFUX 70-3501 / METAFUX 70-3505 / METAFUX 70-3510 ROST-I-SOL**

(Contd. of page 7)

· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL (ETHYL ALCOHOL)), 3, III

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Directive 2012/18/EU
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category P5c** FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5.000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50.000 t

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **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 %
NK	30.0

· **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**

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international 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 Harmonised 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)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

(Contd. on page 9)



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Revision: 10-09-2024

**Trade name: METAFUX 70-3501 / METAFLUX 70-3505 / METAFLUX 70-3510 ROST-I-SOL**

(Contd. of page 8)

*Flam. Liq. 2: Flammable liquids – Category 2*

*Flam. Liq. 3: Flammable liquids – Category 3*

*Acute Tox. 4: Acute toxicity – Category 4*

*Skin Corr. 1B: Skin corrosion/irritation – Category 1B*

*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

*Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*

*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*

**\* Data compared to the previous version altered.**

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