

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 1 of 17

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

1.1. Product identifier

Metaflux 70-37 Rust-Safe

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Aerosol

Uses advised against

none/none

1.3. Details of the supplier of the safety data sheet

Company name:	Metatec Limited		
Street:	Metaflux Building		
Place:	Fitzherbert Road, Portsmouth		
Telephone:	02392 381 382	Fax	+49 (0) 521 207432
e-mail:	ind@metatec.limited		
Internet:	www.metatec-limited.co.uk		
Responsible Department:	Technical		

1.4. Emergency telephone number: Portsmouth 02392 381 382

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: F+ - Extremely flammable
 R phrases:
 Extremely flammable.
 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS classification

Hazard categories:
 Aerosol: Aerosol 1
 Skin corrosion/irritation: Skin Irrit. 2
 Hazardous to the aquatic environment: Aquatic Chronic 3
 Hazard Statements:
 Extremely flammable aerosol.
 Pressurised container: May burst if heated.
 Causes skin irritation.
 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Signal word:	Danger
Pictograms:	GHS02-GHS07

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 2 of 17



Hazard statements

- | | |
|------|--|
| H222 | Extremely flammable aerosol. |
| H229 | Pressurised container: May burst if heated. |
| H315 | Causes skin irritation. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statements

- | | |
|-----------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |
| P251 | Do not pierce or burn, even after use. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |
| P501 | Dispose of contents/container to in accordance with official regulations. |

Special labelling of certain mixtures

- | | |
|--------|---|
| EUH208 | Contains Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines. May produce an allergic reaction. |
|--------|---|

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 3 of 17

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
204-065-8	dimethyl ether	50 - < 55 %
115-10-6	F+ - Extremely flammable R12	
603-019-00-8	Flam. Gas 1; H220	
01-2119472128-37		
215-535-7	xylene	5 - < 10 %
1330-20-7	Xn - Harmful, Xi - Irritant R10-20/21-38	
601-022-00-9	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2; H226 H312 H332 H315	
205-500-4	ethyl acetate	5 - < 10 %
141-78-6	F - Highly flammable, Xi - Irritant R11-36-66-67	
607-022-00-5	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
204-658-1	n-butyl acetate	1 - < 5 %
123-86-4	R10-66-67	
607-025-00-1	Flam. Liq. 3, STOT SE 3; H226 H336	
01-2119485493-29		
231-944-3	trizinc bis(orthophosphate)	1 - < 5 %
7779-90-0	N - Dangerous for the environment R51-53	
	Aquatic Chronic 2; H411	
202-849-4	ethylbenzene	1 - < 5 %
100-41-4	F - Highly flammable, Xn - Harmful R11-20	
601-023-00-4	Flam. Liq. 2, Acute Tox. 4; H225 H332	
203-905-0	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether	1 - < 5 %
111-76-2	Xn - Harmful, Xi - Irritant R20/21/22-36/38	
603-014-00-0	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2; H332 H312 H302 H319 H315	
265-199-0	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified	1 - < 5 %
64742-95-6	Xn - Harmful, N - Dangerous for the environment R10-51-53-65	
	Flam. Liq. 1, Asp. Tox. 1, Aquatic Chronic 2; H224 H304 H411	
203-603-9	2-methoxy-1-methylethyl acetate	1 - < 5 %
108-65-6	Xi - Irritant R10-36	
	Flam. Liq. 3, Eye Irrit. 2; H226 H319	
01-2119475791-29		
	Terpenes and Terpenoids, turpentine-oil, 3-carene fraction	1 - < 5 %
91770-80-8	Xn - Harmful, Xi - Irritant R10-36/38-52-65	
	Flam. Liq. 3, Eye Irrit. 2, Skin Irrit. 2, Asp. Tox. 1, Aquatic Chronic 3; H226 H319 H315 H304 H412	
215-222-5	zinc oxide	< 1 %
1314-13-2	N - Dangerous for the environment R50-53	
030-013-00-7	Aquatic Acute 1, Aquatic Chronic 1; H400 H410	
614-452-7	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	< 1 %
68410-23-1	Xi - Irritant, N - Dangerous for the environment R38-41-43-50-53	

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 4 of 17

	Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H315 H318 H317 H400 H410	
01-2119972323-38		

Full text of R and H phrases: see Section 16.

Further Information

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified:

Note P: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7).

Product does not contain listed SVHC substances.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of irritation of the respiratory tract seek medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

If swallowed, immediately drink: Water. Never give anything by mouth to an unconscious person or a person with cramps. Do not induce vomiting. Caution if victim vomits: Risk of aspiration!

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

No symptoms known up to now.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Foam. Carbon dioxide. Extinguishing powder.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air. Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical resistant suit.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Use a water spray jet to knock down vapours/gases/mists. Contaminated fire-fighting water must be collected separately. Do not empty into drains or the aquatic environment. In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 5 of 17

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eye and clothing. Wear personal protection equipment.

6.2. Environmental precautions

Do not empty into drains or the aquatic environment. Explosion hazard. Eliminate leaks immediately. Prevent spreading over great surfaces (e.g. by damming or installing oil booms). In case of gas being released or leakage into waters, ground or the drainage system, the appropriate authorities must be informed.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the assimilated material according to the section on waste disposal. Ventilate affected area.

6.4. Reference to other sections

See protective measures under point 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas. Take precautionary measures against static discharges. Do not spray into flames or ignition sources. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Heating causes rise in pressure with risk of bursting.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

Advice on storage compatibility

Do not store together with: Radioactive substances. Infectious substances. Organic peroxides
Oxidizing solids Oxidizing liquids Pyrophoric liquids and solids. flammable substances. Substances or mixtures which, in contact with water emit flammable gases.

Further information on storage conditions

Recommended storage temperature: 10-30°C Do not store at temperatures over: 50°C

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 6 of 17

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
108-65-6	1-Methoxypropyl acetate	50	274		TWA (8 h)	WEL
		100	548		STEL (15 min)	WEL
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified	100			TWA (8 h)	
					STEL (15 min)	
123-86-4	Butyl acetate	150	724		TWA (8 h)	WEL
		200	966		STEL (15 min)	WEL
115-10-6	Dimethyl ether	400	766		TWA (8 h)	WEL
		500	958		STEL (15 min)	WEL
141-78-6	Ethyl acetate	200	-		TWA (8 h)	WEL
		400	-		STEL (15 min)	WEL
100-41-4	Ethylbenzene	100	441		TWA (8 h)	WEL
		125	552		STEL (15 min)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	butoxyacetic acid	240 mmol/mol	urine	Post shift
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid	650 mmol/mol	urine	Post shift

8.2. Exposure controls



Appropriate engineering controls

If suction of the immediate vicinity is impossible or insufficient, adequate airing of the working place must be ensured.

Protective and hygiene measures

Take off immediately all contaminated clothing. Wash hands before breaks and at the end of work. When using do not eat, drink or smoke.

Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible).

Hand protection

In case of prolonged or frequently repeated skin contact:

Pull-over gloves of rubber. DIN EN 374

Suitable material:

(penetration time (maximum wearing period): ≥ 4 h):

Butyl rubber. (0,5mm)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 7 of 17

In case of reutilization, clean gloves before taking off and store in well-aired place.

Skin protection

Protective clothing.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection required in case of:

exceeding critical value

insufficient ventilation.

Suitable respiratory protective equipment: Combination filter device (DIN EN 141).. Type A/P3

Only use breathing apparatus with CE-label including the four-digit identification number.

The filter class must be suitable for the maximum contaminant concentration

(gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

Environmental exposure controls

Do not empty into drains or the aquatic environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Aerosol
Colour:	grey
Odour:	characteristic

Test method

pH-Value:	N/A
-----------	-----

Changes in the physical state

Initial boiling point and boiling range:	N/A
--	-----

Flash point:	not determined
--------------	----------------

Explosive properties

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined

Oxidizing properties

none/none

Vapour pressure:	not determined
------------------	----------------

Density:	0.8715 g/cm ³
----------	--------------------------

Water solubility:	not miscible
-------------------	--------------

Viscosity / dynamic:	N/A
----------------------	-----

Solvent content:	76,38 % - Data concerning the Directive 1999/13/EC on the limitation of emissions of volatile organic compounds (VOC-RL)
------------------	--

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal storage and handling conditions.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 8 of 17

10.3. Possibility of hazardous reactions

Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid

Keep away from heat. Ignition hazard.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

In use, may form flammable/explosive vapour-air mixture. Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

No information available.

Acute toxicity

Based on available data, the classification criteria are not met.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 9 of 17

Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
115-10-6	dimethyl ether				
	inhalative (4 h) vapour	LC50	309 mg/l	Rat.	
1330-20-7	xylene				
	oral	LD50	3523 mg/kg	Rat.	MSDS extern
	dermal	LD50	12126 mg/kg	Rabbit.	MSDS extern
	inhalative vapour	LC50	(27,124) mg/l	Rat.	MSDS extern
	inhalative aerosol	ATE	1,5 mg/l		
141-78-6	ethyl acetate				
	oral	LD50	4935 mg/kg	Rat.	MSDS extern
	dermal	LD50	>20000 mg/kg	Rabbit.	ECHA dossier
	inhalative (4 h) vapour	LC50	1600 mg/l	Rat.	MSDS extern
123-86-4	n-butyl acetate				
	oral	LD50	13100 mg/kg	Rat.	MSDS extern
	dermal	LD50	14100 mg/kg	Rabbit.	MSDS extern
	inhalative (4 h) vapour	LC50	21 mg/l	Rat.	MSDS extern
100-41-4	ethylbenzene				
	oral	LD50	3500 mg/kg	Rat.	GESTIS
	dermal	LD50	>20000 mg/kg	Rabbit.	GESTIS
	inhalative (4 h) vapour	LC50	6,2 mg/l	Rat.	
	inhalative aerosol	ATE	1,5 mg/l		
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether				
	oral	LD50	470 mg/kg	Rat.	
	dermal	LD50	220 mg/kg	Rabbit.	
	inhalative (4 h) vapour	LC50	2,2 mg/l	Rat.	
	inhalative aerosol	ATE	1,5 mg/l		
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified				
	oral	LD50	> 5000 mg/kg	Rat.	ECHA Dossier
	dermal	LD50	> 2000 mg/kg	Rabbit.	ECHA Dossier
108-65-6	2-methoxy-1-methylethyl acetate				
	oral	LD50	>=10000 mg/kg	Rat.	ECHA dossier
	dermal	LD50	>2000 mg/kg	Rat.	ECHA dossier
91770-80-8	Terpenes and Terpenoids, turpentine-oil, 3-carene fraction				
	oral	LD50	4800 mg/kg	Rat.	IUCLID
1314-13-2	zinc oxide				
	oral	LD50	> 5000 mg/kg	Rat.	IUCLID
68410-23-1	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines				
	oral	LD50	>=2000 mg/kg	Rat.	ECHA dossier
	dermal	LD50	>=2000 mg/kg	Rat.	ECHA dossier

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 10 of 17

Irritation and corrosivity

Causes skin irritation.

Irritant effect on the eye: Not an irritant.

Sensitising effects

Based on available data, the classification criteria are not met.

May cause sensitization in susceptible people.

STOT-single exposure

Based on available data, the classification criteria are not met.

Severe effects after repeated or prolonged exposure

Based on available data, the classification criteria are not met.

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified:

Subacute oral toxicity: NOEL < 500 mg/kg (Rat.)

Chronic inhalative toxicity: NOAEC = 1402 mg/kg (Mouse.)

xylene:

Subchronic oral toxicity (Rat.) LOAEL = 150mg/kg

dimethyl ether:

Chronic inhalative toxicity: NOAEL = 47106mg/m3 (Rat.)

OECD Guideline 452

Subchronic inhalative toxicity (Rat.) NOAEC = 500 ppm (90d, EPA OTS 798.2450)

n-butyl acetate:

Subchronic inhalative toxicity (Rat.) NOAEC = 500 ppm (90d, EPA OTS 798.2450)

ethyl acetate:

Subchronic inhalative toxicity (Rat.) NOAEC = 350 ppm (90d, EPA OTS 798.2450)

ethylbenzene:

Subchronic oral toxicity (90d): NOAEL = 75 mg/kg (Rat.)

Chronic inhalative toxicity (24 m): NOAEC = 75 ppm (Rat.)

Lit.: ECHA dossier

2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether

Subchronic dermal toxicity (90d, Rat.): NOAEL = 150 mg/kg

Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha:

Chronic inhalative toxicity (113w): NOAEC = 1402mg/m3 (Rat.)

Carcinogenic/mutagenic/toxic effects for reproduction

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 11 of 17

Based on available data, the classification criteria are not met.
Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified:
No experimental indications of mutagenicity in-vitro exist.
No experimental indications of mutagenicity in-vivo exist.
No indications of human carcinogenicity exist.
Reproductive toxicity:: NOAEL = 20000 mg/m3 (Rat.)
Developmental toxicity/teratogenicity : NOAEL = 23900 mg/m3 (Rat.)
xylene:
Developmental toxicity/teratogenicity : NOAEL = 500ppm (OECD Guideline 414)
dimethyl ether:
Developmental toxicity/teratogenicity: NOAEL = 5000ppm
No experimental indications of mutagenicity in-vivo exist.
n-butyl acetate:
No experimental indications of mutagenicity in-vitro exist.
Developmental toxicity/teratogenicity: NOAEL = 1500 ppm; (OECD Guideline 414)
Lit: ECHA Dossier
ethyl acetate:
No experimental indications of mutagenicity in-vitro exist.
ethylbenzene:
OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test) = negative.
OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) = negative.
Lit: ECHA Dossier
2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether
No experimental indications of mutagenicity in-vitro exist.
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) = negative.
Reproductive toxicity:: NOEL >= 720 mg/kg (Mouse.)
Developmental toxicity/teratogenicity: NOAEC >= 100ppm (Rabbit.)
No indications of human carcinogenicity exist.
2-methoxy-1-methylethyl acetate
OECD Guideline 471 (Bacterial Reverse Mutation Assay) = negative.
zinc oxide
In-vitro mutagenicity: Ames test negative. (OECD 471)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines
No experimental indications of mutagenicity in-vitro exist.

Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 12 of 17

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
115-10-6	dimethyl ether					
	Acute fish toxicity	LC50	>4100 mg/l	96 h	Poecilia reticulata	
	Acute crustacea toxicity	EC50	>4400 mg/l	48 h	Daphnia magna	
1330-20-7	xylene					
	Acute fish toxicity	LC50	2,6 mg/l	96 h		MSDS extern
	Acute algae toxicity	ErC50	2,2 mg/l	72 h		
	Acute crustacea toxicity	EC50	1 mg/l	48 h	Daphnia magna	MSDS extern
141-78-6	ethyl acetate					
	Acute fish toxicity	LC50	>100 mg/l	96 h	Pimephales promelas	ECHA dossier
	Acute algae toxicity	ErC50	>100 mg/l	72 h	Green algae	ECHA dossier
123-86-4	n-butyl acetate					
	Acute fish toxicity	LC50	62 mg/l	96 h	Leuciscus idus	MSDS extern
	Acute algae toxicity	ErC50	674,7 mg/l	72 h	Desmodesmus subspicatus	MSDS extern
	Acute crustacea toxicity	EC50	72,8 mg/l	48 h	Daphnia magna	MSDS extern
100-41-4	ethylbenzene					
	Acute fish toxicity	LC50	5,1 mg/l	96 h	Menidia menidia	ECHA Dossier
	Acute algae toxicity	ErC50	3,6 mg/l	96 h	Selenastrum capricornutum	GESTIS
	Acute crustacea toxicity	EC50	1,8-2,8 mg/l	48 h	Daphnia magna	ECHA Dossier
	Acute bacteria toxicity	(7,7 mg/l)			Skeletonema costatum	ECHA Dossier
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether					
	Acute fish toxicity	LC50	1490 mg/l	96 h	Lepomis macrochirus	
64742-95-6	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified					
	Acute fish toxicity	LC50	10 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier
	Acute crustacea toxicity	EC50	4,5 mg/l	48 h	daphnia magna	ECHA Dossier
108-65-6	2-methoxy-1-methylethyl acetate					
	Acute fish toxicity	LC50	100 mg/l	96 h	Salmo gairdneri	ECHA dossier
	Acute algae toxicity	ErC50	>=1000 mg/l	96 h	Selenastrum capricornutum	ECHA dossier
	Acute crustacea toxicity	EC50	>=500 mg/l	48 h	Daphnia magna	ECHA dossier
91770-80-8	Terpenes and Terpenoids, turpentine-oil, 3-carene fraction					
	Acute fish toxicity	LC50	5 - 10 mg/l	96 h	Brachydanio rerio	IUCLID
	Acute algae toxicity	ErC50 mg/l	100 - 200	72 h	Selenastrum capricornutum	IUCLID
	Acute crustacea toxicity	EC50 mg/l	12.8 - 24.3	48 h	Daphnia magna	IUCLID
68410-23-1	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines					
	Acute algae toxicity	ErC50	4.11 mg/l	72 h	Pseudokirchnerella subcapitata	ECHA dossier

12.2. Persistence and degradability

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 13 of 17

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
115-10-6	dimethyl ether			
	OECD 301D / EEC 92/69 annex V, C.4-E	5%	28	
	Not easily bio-degradable (according to OECD-criteria).			
1330-20-7	xylene			
	ASTM D1252-67	81%	5	
	COD/ThOD			
141-78-6	ethyl acetate			
		>60%	20	
100-41-4	ethylbenzene			
	ISO 14593-CO2-Headspace Test	79	28	ERCHA Dossier
	Easily biodegradable (concerning to the criteria of the OECD)			
108-65-6	2-methoxy-1-methylethyl acetate			
	OECD guideline 301F	83	28	

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
115-10-6	dimethyl ether	0,07
1330-20-7	xylene	3,82
141-78-6	ethyl acetate	0,73
123-86-4	n-butyl acetate	2,3
100-41-4	ethylbenzene	3,6
111-76-2	2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether	0,81 (25°C)
108-65-6	2-methoxy-1-methylethyl acetate	1.2
91770-80-8	Terpenes and Terpenoids, turpentine-oil, 3-carene fraction	4.5 - 5.5

BCF

CAS No	Chemical name	BCF	Species	Source
1330-20-7	xylene	4,9-25,9		

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Waste disposal according to official state regulations. Cleaned containers may be recycled.

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 14 of 17

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances
Classified as hazardous waste.

Contaminated packaging

Handle contaminated packaging in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
Hazard label: 2.1



Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Transport category: 2
Tunnel restriction code: D

Other applicable information (land transport)

Excepted quantity: E0

Inland waterways transport (ADN)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
Hazard label: 2.1



Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: LQ 2

Other applicable information (inland waterways transport)

Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2, see SP63

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 15 of 17

Marine pollutant: NO
Special Provisions: 63, 190, 277, 327, 344, 959
Limited quantity: See SP277
EmS: F-D, S-U

Other applicable information (marine transport)

Excepted quantity: E0

Air transport (ICAO)

14.1. UN number: UN1950
14.2. UN proper shipping name: AEROSOLS, flammable
14.3. Transport hazard class(es): 2.1
Hazard label: 2.1



Special Provisions: A145 A167 A803
Limited quantity Passenger: 30 kg G
IATA-packing instructions - Passenger: 203
IATA-max. quantity - Passenger: 75 kg
IATA-packing instructions - Cargo: 203
IATA-max. quantity - Cargo: 150 kg

Other applicable information (air transport)

Excepted quantity: E0
Passenger-LQ: Y203

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

refer to chapter 6-8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

1999/13/EC (VOC): 76,38 %, VOC Directive 2004/42/EC: 665,652 g/l

Additional information

The preparation is dangerous in the sense of Directive 1999/45/EC.
This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].
aerosol directive (75/324/EEC).
Regulation 96/82/EC for danger control following severe accidents with dangerous substances:
Appendix I, Part 2, No 8 (Seveso II)

National regulatory information

Employment restrictions: Observe employment restrictions for young people.
Water contaminating class (D): 2 - water contaminating

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 16 of 17

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Rev. 1,0 Initial release 12.02.2014

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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level

Full text of R phrases referred to under Sections 2 and 3

10	Flammable.
11	Highly flammable.
12	Extremely flammable.
20	Harmful by inhalation.
20/21	Harmful by inhalation and in contact with skin.
20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
36	Irritating to eyes.
36/38	Irritating to eyes and skin.
38	Irritating to skin.
41	Risk of serious damage to eyes.
43	May cause sensitisation by skin contact.
50	Very toxic to aquatic organisms.
51	Toxic to aquatic organisms.
52	Harmful to aquatic organisms.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53	May cause long-term adverse effects in the aquatic environment.
65	Harmful: may cause lung damage if swallowed.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.

Full text of H statements referred to under Sections 2 and 3

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Metaflux 70-37 Rust-Safe

Print date: 12.06.2015

Product code: 70-37

Page 17 of 17

H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
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.
H412	Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)