Printing date 12.06.2015 Revision: 16.07.2014

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

- Product identifier
- Trade name: Metaflux 70-15 Schnellreiniger / Rapid Cleaner
- Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

• Application of the substance / the preparation

Cleaning agent/ Cleaner

Solvent Cleaner

- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

Metaflux International AG Industriestrasse 11 CH-4313 Möhlin

Switzerland

++41 61 851 08 00

www.metaflux.com

• Further information obtainable from:

Sales Department

++41 61 851 08 00

• Emergency telephone number:

Central Phone Number

++49 521 924440



Bio-Circle Surface Technology AG

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Notrufnummer

TOX-Center: Tel. für die Schweiz: **145** andere Länder: +41 44 251 51 51

2 Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

• Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R38: Irritating to skin.



R12: Extremely flammable.



R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

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(Contd. of page 1)

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

Has a narcotizing effect.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· Label elements

· Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:







Xi Irritant

F+ *Extremely flammable*

N Dangerous for the environment

· Risk phrases:

- 12 Extremely flammable.
- 38 Irritating to skin.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 67 Vapours may cause drowsiness and dizziness.

· Safety phrases:

23 Do not breathe spray.

24/25 Avoid contact with skin and eyes.

29/35 Do not empty into drains; dispose of this material and its container in a safe way.

51 Use only in well-ventilated areas.

· Special labelling of certain preparations:

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!

Without sufficient ventilation formation of explosive mixtures may be possible.

Keep out of the reach of children

- · Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Active substance with propellant

· Dangerous components:

CAS: 64742-49-0

EC number: 921-024-6

X n R65; X i R38; F R11; N R51/53

R67

Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336

| Skin Irrit. 2, H315; STOT SE 3, H336 | Story Story

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	(Cor	ntd. of page
CAS: 67-64-1	acetone	10-25
EINECS: 200-662-2	X Xi R36; № F R11	
	R6 6-67	
	🚸 Flam. Liq. 2, H225; <equation-block> Eye Irrit. 2, H319; STOT SE 3, H336</equation-block>	
CAS: 74-98-6	propane	10-25
EINECS: 200-827-9	♦ F+ R12	
	<page-header> Flam. Gas 1, H220; Press. Gas, H280</page-header>	
CAS: 110-82-7	cyclohexane	<6%
EINECS: 203-806-2	Xn R65; Xi R38;	
	♦ Flam. Liq. 2, H225; ♦ Asp. Tox. 1, H304; ♦ Aquatic Acute 1,	1
	H400; Aquatic Chronic 1, H410; (1) Skin Irrit. 2, H315; STOT SE 3,	
	H336	
CAS: 110-54-3	n-hexane	<2.49
EINECS: 203-777-6	Xn R48/20-62-65; Xi R38; → F R11; N R51/53 R67	
	Repr. Cat. 3	
	♦ Flam. Liq. 2, H225; ♦ Repr. 2, H361f; STOT RE 2, H373; Asp. Tox.	
	1, H304; 🗞 Aquatic Chronic 2, H411; 🐧 Skin Irrit. 2, H315; STOT SE 3, H336	
Regulation (EC) No 6	48/2004 on detergents / Labelling for contents	•
aliphatic hydrocarbon	S	≥ 30%
perfumes (LIMONENI	E. CITRAL)	

4 First aid measures

- · 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.

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.
- · After swallowing: Do not induce vomiting; call for medical help immediately.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Firefighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Do not inhale explosion gases or combustion gases.
- · Additional information Cool endangered receptacles with water spray.

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Trade name: Metaflux 70-15 Schnellreiniger / Rapid Cleaner

(Contd. of page 3)

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Ensure adequate ventilation.

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

· 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.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

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

- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Protect from heat and direct sunlight.
- · Recommended storage temperature: 15 35°C, max. 50°C
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

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

64742-49-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane		
TWA (8H) (Great Britai	n) Long-term value: 1000 mg/m³, 250 ppm	
67-64-1 acetone		
WEL (Great Britain)	Short-term value: 3620 mg/m³, 1500 ppm	
	Long-term value: 1210 mg/m³, 500 ppm	
$IOELV\left(EU ight)$	Long-term value: 1210 mg/m³, 500 ppm	
110-82-7 cyclohexane		
WEL (Great Britain)	Short-term value: 1050 mg/m³, 300 ppm	
	Long-term value: 350 mg/m³, 100 ppm	
IOELV (EU)	Long-term value: 700 mg/m³, 200 ppm	
110-54-3 n-hexane	'	
WEL (Great Britain)	Long-term value: 72 mg/m³, 20 ppm	
IOELV (EU)	Long-term value: 72 mg/m³, 20 ppm	

. on page 3

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(Contd. of page 4)

- · Additional information: The lists valid during the making were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
- · Protection of hands:



Protective gloves

- · Material of gloves If contamination is possible, use gloves made of nitrile according EN 374
- · Penetration time of glove material > 480 min / 0,4 mm thickness
- · Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Aerosol
Colour: Colourless
Odour: Fruit-like

· Change in condition

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: -44°C

• Flash point: $x \circ C$

Not applicable, as aerosol.

• Ignition temperature: 250°C

· *Self-igniting: Product is not selfigniting.*

• Danger of explosion: Risk of bursting at temperatures > 50°C. Damage of the container may lead

to the formation of explosive mixtures of gas/vapors with air.

· Explosion limits:

 Lower:
 0.8 Vol %

 Upper:
 13.0 Vol %

 Pressure (20°C)
 3 - 5 bar

• **Density at 20°C:** 0.703 g/cm³

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

· Solvent content:

Organic solvents: 87.1 %

• Other information No further relevant information available.

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(Contd. of page 5)

· Additional information Vapors are heavier than air.

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided: Risk of bursting at temperatures >50°C.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.
- · Additional information: Stable for a storage time of min. 24 months

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values relevant for classification:

64742-49-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane

Oral	LD50	> 2000 mg/kg (rat)
Dermal	<i>LD50</i>	> 2000 mg/kg (rabbit)
Inhalative	LC50/4 h	> 5 mg/l (rat)

110-82-7 cyclohexane

Oral LD50 12705 mg/kg (rat)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: low
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

12 Ecological information

- · Toxicity
- $\cdot \textit{Aquatic toxicity:}$

64742-49-0 Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cycloalkanes, <5% n-hexane

 $LC \, 50 \, / \, 96 \, h \, < 10 \, mg \, / \, l \, (fis)$

- · Persistence and degradability No further relevant information available.
- · Behaviour in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · 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

Also poisonous for fish and plankton in water bodies.

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Toxic for aquatic organisms

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation

empty cans: material recycling

filled cans: remove in accordance with local regulations

v	· · · · · · · · · · · · · · · · · · ·		
· European	· European waste catalogue		
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST		
16 05 00	gases in pressure containers and discarded chemicals		
16 05 04*	gases in pressure containers (including halons) containing dangerous substances		
07 00 00	WASTES FROM ORGANIC CHEMICAL PROCESSES		
07 06 00	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics		
07 06 04*	other organic solvents, washing liquids and mother liquors		

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

1 4 0			C	7.0
	rans	port in	ntorm	ากรากท
<u> </u>	I WILD	poi v u		

- · UN-Number
- · ADR, IMDG, IATA

UN1950

- · UN proper shipping name
- $\cdot ADR$
- 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS · IMDG AEROSOLS (Naphtha (petroleum), hydrotreated light,
- HEXANES), MARINE POLLUTANT \cdot IATA AEROSOLS, flammable
- · Transport hazard class(es)
- $\cdot ADR$



· Class 2 5F Gases. · Label

· IMDG



2.1 · Class

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	(Contd. of page
· Label	2.1
· IATA	
2	
· Class	2.1
· Label	2.1
· Packing group	
· ADR, IMDG, IATA	Void
· Environmental hazards:	Product contains environmentally hazardous substances: (R)-mentha-1,8-diene, Hydrocarbons, C6-C7, n-alkanes, isoalkane cycloalkanes, <5% n-hexane
· Marine pollutant:	Yes
•	Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Gases.
Danger code (Kemler):	-
· EMS Number:	F-D,S-U
· Transport in bulk according to Annex 1	II of
MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
\cdot ADR	
· Limited quantities (LQ)	1L
· Transport category	2
· Tunnel restriction code	D
· UN "Model Regulation":	UN1950, AEROSOLS, ENVIRONMENTALLY HAZARDOU 2.1

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:







- Xi Irritant
- F+ Extremely flammable
- N Dangerous for the environment
- · Risk phrases:
- 12 Extremely flammable.
- 38 Irritating to skin.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 67 Vapours may cause drowsiness and dizziness.
- · Safety phrases:
- 23 Do not breathe spray.
- 24/25 Avoid contact with skin and eyes.
- 29/35 Do not empty into drains; dispose of this material and its container in a safe way.

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Trade name: Metaflux 70-15 Schnellreiniger / Rapid Cleaner

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51 Use only in well-ventilated areas.

· Special labelling of certain preparations:

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!

Without sufficient ventilation formation of explosive mixtures may be possible.

Keep out of the reach of children

· 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 %
Ι	1.9
NK	<i>85.3</i>

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H361f Suspected of damaging fertility.
- H373 May cause damage to organs through prolonged or repeated exposure.
- 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.
- R11 Highly flammable.
- R12 Extremely flammable.
- R36 Irritating to eyes.
- R38 Irritating to skin.
- R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R62 Possible risk of impaired fertility.
- R65 Harmful: may cause lung damage if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

· 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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LD50: Lethal dose, 50 percent

· * Data compared to the previous version altered.