Printing date 19.11.2020 Revision: 19.11.2020

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

- · 1.1 Product identifier
- · Trade name: METAFLUX 70-86 Ceramic Spray white
- · 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 Lubricant
- · 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

www.metaflux.de

info@metaflux.de

· Further information obtainable from:

Sales Department

- +49 521 92444-0
- · 1.4 Emergency telephone number:
- +49 700124112112 or +1 872 5888271 (TSF) 24 h

SECTION 2: Hazards identification

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

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The labelling of an aspiration hazard (Asp. Tox. 1 H304) is not required for aerosols and containers with a sealed spray attachmend (Regulation (EC) 1272/2008, Annex I, 1.3.3).

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS02

02 GHS07

- · Signal word Danger
- · Hazard-determining components of labelling:

Propan-2-ol

pentane

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H319 Causes serious eye irritation.H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

· 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.

P211 Do not spray on an open flame or other ignition source.

(Contd. on page 2)

(Contd. of page 1)

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

Printing date19.11.2020 Revision:19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

P251 Do not pierce or burn, even after use.
P260 Do not breathe vapours/spray.
P280 Wear protective gloves / eye protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents / container as special waste.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT**: Not applicable. · **vPvB**: Not applicable.

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: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32	butane Flam. Gas 1, H220; Press. Gas C, H280	10-25%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1, H220; Press. Gas L, H280	10-25%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	Propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	≥10-≤15%
CAS: 109-66-0 EINECS: 203-692-4	pentane	2.5-10%
EC number: 931-254-9 Reg.nr.: 01-2119484651-34	Hydrocarbons, C6, isoalkanes, <5% n-hexane ♠ Flam. Liq. 2, H225; ♠ Asp. Tox. 1, H304; ♦ Aquatic Chronic 2, H411; ♦ Skin Irrit. 2, H315; STOT SE 3, H336	2.5-10%
EC number: 926-605-8 Reg.nr.: 01-2119486291-36	Hydrocarbons, C6-C7, isoalkanes, cyclics,<5%n-hexane ♦ Flam. Liq. 2, H225; ♦ Asp. Tox. 1, H304; ♦ Aquatic Chronic 2, H411; ♦ STOT SE 3, H336	2.5-10%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27	isobutane (<0,1% butadiene) Flam. Gas I, H220; Press. Gas C, H280	≥0.1-≤2.5%
CAS: 110-82-7 EINECS: 203-806-2	cyclohexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315; STOT SE 3, H336	<i>≥</i> 0.25- <i>≤</i> 1%
CAS: 110-54-3 EINECS: 203-777-6	n-hexane ♠ 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	≥0.25-≤1%

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

GI

Printing date 19.11.2020 Revision: 19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

(Contd. of page 2)

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.
- · After skin contact: Wash with water and soap
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: Do not induce vomiting; call for medical help immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 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:

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
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment: Do not inhale explosion gases or combustion gases.
- · Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

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

Dispose contaminated material as waste according to item 13.

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

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.

Pressurised 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.

- · 7.2 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 pressurised containers.

· Information about storage in one common storage facility: Not required.

(Contd. on page 4)

Printing date 19.11.2020 Revision: 19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

(Contd. of page 3)

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

- Recommended storage temperature: 15 35°C, max. 50°C
- · 7.3 Specific end use(s) No further relevant information available.

	injormation t l parameters	about design of technical facilities: No fi	n mer aata, see tiem /.
	_	lues that require monitoring at the work	place:
106-97-8 b			_
WEL (Gree	at Britain)	Short-term value: 1810 mg/m³, 750 pp	
		Long-term value: 1450 mg/m³, 600 pp	
(7 (2 0 D	2 1	Carc (if more than 0.1% of buta-1.3-d.	iene)
67-63-0 Pr	_	St 1250 / 3 500	
WEL (Gree	u Britain)	Short-term value: 1250 mg/m³, 500 pp Long-term value: 999 mg/m³, 400 ppm	
109-66-0 р	entane	zong term variati yyy mg/m , yoo pp	<u> </u>
WEL (Gred		Long-term value: 1800 mg/m³, 600 pp.	m
IOELV (EU	*	Long-term value: 3000 mg/m³, 1000 p	
	*	kanes, <5% n-hexane	·
RCP-TWA	(Great Britair	1) Long-term value: 1400 mg/m³	
Hydrocarb	ons, C6-C7, is	soalkanes, cyclics,<5%n-hexane	
RCP-TWA	(Great Britair	n) Long-term value: 1400 mg/m³	
110-82-7 с	yclohexane	•	
WEL (Gred	at 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	1
110-54-3 n		1 72 (122	
WEL (Gree	,	Long-term value: 72 mg/m³, 20 ppm	
IOELV (EU) Long-term value: 72 mg/m³, 20 ppm			
DNELs			
67-63-0 Pr	_		
Oral		rbraucher/ Consumers /Consommateur	26 mg/kg BW/ day (.)
Dermal			319 mg/kg BW /day (.)
		ter / Workers/ Travailleur	888 mg/kg BW /day (.)
Inhalative		rbraucher/ Consumers / Consommateur	89 mg/m3 (.)
100 (; ;)	DNEL Arbeiter / Workers/ Travailleur 500 mg /m3 (.)		
109-66-0 p		1 1 / 0 / 0	214 // DIII/ 1 /
Oral D	DNEL Endverbraucher/ Consumers /Consommateur		214 mg/kg BW/ day (.)
Dermal			214 mg/kg BW /day (.)
T. 1. 1 ··		ter / Workers/ Travailleur	432 mg/kg BW /day (.)
ınnalative		rbraucher/ Consumers /Consommateur	643 mg/m3 (.)
II., J.,		er / Workers/ Travailleur	3,000 mg/m3 (.)
-	* *	kanes, <5% n-hexane	1.201 // DW/ 1 /)
Oral	DNEL Endverbraucher/ Consumers /Consommateur 1,301 mg/kg BW/ day (.) DNEL - Endverbraucher/ Consumers /Consommateur 1,377 mg/kg BW /day (.)		

бB

Printing date 19.11.2020 Revision: 19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

			(Contd. of page 4)
	DNEL Arbeiter / Workers/ Travailleur	13,964 mg/kg BW /day (.)	
Inhalative	DNEL Endverbraucher/ Consumers /Consommateur	1,137 mg /m3 (.)	
	DNEL Arbeiter / Workers/ Travailleur	5,306 mg/m3 (.)	
Hydrocarb	Hydrocarbons, C6-C7, isoalkanes, cyclics,<5%n-hexane		
Oral	DNEL Endverbraucher/ Consumers /Consommateur	1,301 mg/kg BW/ day (.)	
Dermal	DNEL - Endverbraucher/ Consumers /Consommateur	1,377 mg/kg BW /day (.)	
	DNEL Arbeiter / Workers/ Travailleur	13,964 mg/kg BW /day (.)	
Inhalative	DNEL Endverbraucher/ Consumers /Consommateur	1,131 mg/m3 (.)	
	DNEL Arbeiter / Workers/ Travailleur	5,306 mg/m3 (.)	

- 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.

Do not inhale gases / fumes / aerosols.

· Respiratory protection:

Not necessary if room is well-ventilated.

Use suitable respiratory protective device when high concentrations are present.

Filter AX

- · Protection of hands:
- · 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: Safety glasses in case of spittings

9.1 Information on basic physical a General Information	and chemical properties
Appearance:	
Form:	Aerosol
Colour:	White
Odour:	Characteristic
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling re	ange: -47°C
-	value concers to propellant
Flash point:	<-50°C
-	concerns to propellant
Ignition temperature:	250°C
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Risk of bursting at temperatures > 50°C. Damage of the contained may lead to the formation of explosive mixtures of gas/vapors with air.
Explosion limits:	
Lower:	0.8 Vol %
Upper:	12.0 Vol %
Pressure (20°C) at 20°C	2.5 - 4 bar
Density at 20°C:	0.71 g/cm^3

(Contd. on page 6)

Printing date 19.11.2020 Revision: 19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

		(Contd. of page 5)
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.	
· Solvent content:		
Organic solvents:	32.4 %	
· 9.2 Other information	No further relevant information available.	
· Additional information	Vapors are heavier than air.	

SECTION 10: Stability and reactivity

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

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:			
106-97-8 b	106-97-8 butane		
Inhalative	Inhalative LC50/4 h 658 mg/l (rat)		
74-98-6 pr	opane		
Inhalative	LC50/4 h	>20 mg/l (rat)	
	LC50 /15 min	1,443 mg/l (rat)	
67-63-0 Propan-2-ol			
Oral	LD50	5,045 mg/kg (rat)	
Dermal	<i>LD50</i>	12,800 mg/kg (rabbit)	
Inhalative	Inhalative LC50/4 h 30 mg/l (rat)		
75-28-5 isobutane (<0,1% butadiene)			
Inhalative	LC50/4 h	>20 mg/l (rat)	
110-82-7 cyclohexane			
Oral	LD50	12,705 mg/kg (rat)	

- · Primary irritant effect:
- · Skin corrosion/irritation irritant
- · Serious eye damage/irritation

Causes serious eye irritation.

- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, 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

May cause drowsiness or dizziness.

· STOT-repeated exposure Based on available data, the classification criteria are not met.

(Contd. on page 7)

Printing date 19.11.2020 Revision: 19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

(Contd. of page 6)

· Aspiration hazard

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 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.
- · Ecotoxical effects:
- · Remark: Harmful to fish
- Additional ecological information:
- · General notes:

Harmful to aquatic organisms

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

empty cans: material recycling

filled cans: remove in accordance with local regulations

· 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 hazardous substances		

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

SECTION 14: Transport information

14 1	UN-Number
14.1	UIV-IVUIIIUEI

· ADR, IMDG, IATA UN1950

· 14.2 UN proper shipping name

 $\begin{array}{ccc} \cdot ADR & 1950 \, AEROSOLS \\ \cdot IMDG & AEROSOLS \\ \cdot IATA & AEROSOLS, flammable \end{array}$

- · 14.3 Transport hazard class(es)
- $\cdot ADR$



· Class 2 5F Gases.

(Contd. on page 8)

Printing date 19.11.2020 Revision: 19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

	(Contd. of page 7
Label	2.1
IMDG, IATA	
2	
Class	2.1
Label	2.1
14.4 Packing group	
ADR, IMDG, IATA	Void
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Gases.
Danger code (Kemler): EMS Number:	- F-D,S-U
EMS Number: Stowage Code	F-D,S-U SW1 Protected from sources of heat.
Stowage Code	SW22 For AEROSOLS with a maximum capacity of 1 litre
	Category A. For AEROSOLS with a capacity above 1 litre
	Category B. For WASTE AEROSOLS: Category C, Clea
	of living quarters.
Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre
	Segregation as for class 9. Stow "separated from" class
	except for division 1.4. For AEROSOLS with a capacit
	above 1 litre: Segregation as for the appropriat
	subdivision of class 2. For WASTE AEROSOLS Segregation as for the appropriate subdivision of class 2.
14577	
14.7 Transport in bulk according to Ai Marpol and the IBC Code	inex II of Not applicable.
Transport/Additional information:	The state of the s
ADR Limited quantities (LQ)	IL
Excepted quantities (EQ)	Code: E0
Excepted quantities (EQ)	Not permitted as Excepted Quantity
Transport category	2
Tunnel restriction code	D
Remarks:	Transportation as "LIMITED QUANTITIES" according
	3.4 ADR is possible.
	Sole marking: Sign for "Limited Quantities" (rhombu
	with two black edges)
	Entry in the transportation document: Transportation according chapter 3.4 ADR
	Tunnel category "E" in case of a load of 8000 kg (rgros
	weight) or more.
IMDG	
IMDG Limited quantities (LQ)	IL
IMDG Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E0
Limited quantities (LQ)	
Limited quantities (LQ)	Code: E0

Printing date 19.11.2020 Revision: 19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

(Contd. of page 8)

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 P3a FLAMMABLE AEROSOLS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · 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	0.6
NK	31.8

· 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

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.

· 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 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)

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

Flam. Gas 1: Flammable gases - Category 1

Aerosol 1: Aerosols - Category 1

Press. Gas C: Gases under pressure – Compressed gas

Press. Gas L: Gases under pressure – Liquefied gas

Flam. Liq. 2: Flammable liquids – Category 2 Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

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

(Contd. on page 10)

Page 10/10

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

Revision: 19.11.2020 Printing date 19.11.2020

Trade name: METAFLUX 70-86 Ceramic Spray - white

(Contd. of page 9)

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3 * Data compared to the previous version altered.