METAFLUX 70-85 Lubricating Metal Paste

Version 1.1 Revision Date 30.01.2019 Print Date 30.01.2019

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

1.1 Product identifier

Product name : Lubricating Metal

Article-No. : 70-85

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

Use of the Substance/Mixture : Grease

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

TECHNO-SERVICE GmbH
Detmolder Str. 515
D-33605 Bielefeld

Tel: +49 (0) 521 924440
Fax: +49 (0) 521 207432
verkauf@metaflux.de www.metaflux.de

E-mail address : info@metaflux.de
Responsible/issuing person Sales department

1.4 Emergency telephone number

+49 (0) 521 924440 during normal working hours

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Dangerous for the environment	R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.

2.3 Other hazards

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : solid lubricant
Mineral oil.
lithium soap

Hazardous components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
zinc powder - zinc dust (pyrophoric)	7440-66-6 231-175-3 030-001-00-1	N; R50-R53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 1 - < 2.5
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4	N; R50/53	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.1 - < 0.25
Substances with a workplace exposure limit :				
Graphite	7782-42-5 231-955-3			>= 1 - < 10
molybdenum disulphide	1317-33-5 215-263-9			>= 1 - < 10
titanium dioxide	13463-67-7 236-675-5			>= 1 - < 10
aluminium	7429-90-5 231-072-3	F; R11	Flam. Sol. 1; H228	>= 1 - < 10
Talc (Mg3H2(SiO3)4)	14807-96-6 238-877-9			>= 1 - < 10

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures

If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
In case of contact, immediately flush skin with plenty of water.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : If eye irritation persists, consult a specialist.
Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.

If swallowed : If unconscious place in recovery position and seek medical advice.
Keep respiratory tract clear.
Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

: Move the victim to fresh air.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No information available.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : none

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Fire may cause evolution of:
Carbon oxides

Metal oxides
Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Exposure to decomposition products may be a hazard to health.
Further information	: Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	: Evacuate personnel to safe areas. Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Avoid breathing dust. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions	: Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	: Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage 7.1

Precautions for safe handling

Advice on safe handling	: Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Wash hands and face before breaks and immediately after handling the product. Do not ingest. Do not repack. These safety instructions also apply to empty packaging which may still contain product residues.

Keep container closed when not in use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container.
Keep container closed when not in use.
Keep in a dry, cool and well-ventilated place.
To maintain product quality, do not store in heat or direct sunlight.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store in accordance with the particular national regulations.
Keep in properly labelled containers.

7.3 Specific end use(s)

: Consult the technical guidelines for the use of this substance/mixture.

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8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value type	Control parameters	Update	Basis
Graphite	7782-42-5	TWA	10 mg/m3	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
Graphite	7782-42-5	TWA	4 mg/m3	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that				

	enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
molybdenum disulphide	1317-33-5	TWA	10 mg/m3	2005-04-06	GB EH40
Further information:	Molybdenum				
molybdenum disulphide	1317-33-5	STEL	20 mg/m3	2005-04-06	GB EH40
Further information:	Molybdenum				
titanium dioxide	13463-67- 7	TWA	10 mg/m3	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
titanium dioxide	13463-67- 7	TWA	4 mg/m3	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
aluminium	7429-90-5	TWA	10 mg/m3	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature				

	and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
aluminium	7429-90-5	TWA	4 mg/m3	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
Talc (Mg3H2(SiO3)4)	14807-96- 6	TWA	1 mg/m3	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust Talc is defined as the mineral talc together with other hydrous phyllosilicates including chlorite and carbonate materials which occur with it, but excluding amphibole asbestos and crystalline silica. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				
2,6-di-tert-butyl-p-cresol	128-37-0	TWA	10 mg/m3	2005-04-06	GB EH40
Further information:	2: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used				

DNEL

2,6-di-tert-butyl-p-cresol : End Use: Industrial use
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 5.8 mg/m3

End Use: Industrial use
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 8.3 mg/kg

PNEC
2,6-di-tert-butyl-p-cresol : Soil
Value: 1.04 mg/kg

Fresh water sediment
Value: 1.29 mg/kg

Marine water
Value: 0.0004 mg/l

Fresh water
Value: 0.004 mg/l

Intermittent use/release
Value: 0.004 mg/l

Microbiological Activity in Sewage Treatment Systems Value: 100 mg/l

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.
It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.
Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).
none

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection : For prolonged or repeated contact use protective gloves.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

Eye protection : Tightly fitting safety goggles
Safety glasses with side-shields conforming to EN166

Hygiene measures : Wash face, hands and any exposed skin thoroughly after

handling.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Environmental exposure controls

General advice : Do not allow contact with soil, surface or ground water.
If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	: paste
Colour	: grey
Odour	: characteristic
Odour Threshold	: No data available
pH	: No data available
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: not applicable
Evaporation rate	: No data available
Flammability (solid, gas)	: Combustible Solids
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Vapour pressure	: < 0.001 hPa, 20 °C
Relative vapour density	: No data available
Density	: 1.09 g/cm3, 20 °C
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Ignition temperature	: No data available
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Oxidizing properties	: No data available

9.2 Other information

Sublimation point	: No data available
Bulk density	: No data available

10. Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	: No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid	: No conditions to be specially mentioned.

10.5 Incompatible materials

Materials to avoid	: No materials to be especially mentioned.

10.6 Hazardous decomposition products

Hazardous decomposition products	: No decomposition if stored and applied as directed.

11. Toxicological information

11.1 Information on toxicological effects

Product

Skin corrosion/irritation	: This information is not available.
Serious eye damage/eye irritation	: This information is not available.
Respiratory or skin sensitisation	: This information is not available.
Germ cell mutagenicity	
Genotoxicity in vitro	: No data available
Genotoxicity in vivo	: No data available
Carcinogenicity	: No data available
Reproductive toxicity	: No data available
Teratogenicity	: No data available
Repeated dose toxicity	: This information is not available.
Aspiration toxicity	: This information is not available.
Further information	: Information given is based on data on the components and the toxicology of similar products.

Components:

zinc powder - zinc dust (pyrophoric) :

Skin corrosion/irritation	: Humans, Result: Mild skin irritation

2,6-di-tert-butyl-p-cresol :

Acute oral toxicity	: LD50: > 5,000 mg/kg, rat, OECD Test Guideline 401
Acute dermal toxicity	: LD50: > 5,000 mg/kg, rat, OECD Test Guideline 402
Skin corrosion/irritation	: rabbit, Result: No skin irritation, Classification: No skin irritation
Serious eye damage/eye irritation	: rabbit, Result: No eye irritation, Classification: No eye irritation
Respiratory or skin sensitisation	: guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation.
Germ cell mutagenicity	
Genotoxicity in vitro	: Ames test, Result: negative, In vitro tests did not show mutagenic effects
Genotoxicity in vivo	: In vivo micronucleus test, Result: negative
Assessment	: In vivo tests did not show mutagenic effects
Reproductive toxicity	: rat, NOAEL: 100 mg/kg Assessment: No toxicity to reproduction
STOT - single exposure	: Remarks: No data available
STOT - repeated exposure	: Remarks: No data available
Further information	: Information given is based on data on the components and the toxicology of similar products.

Graphite :

Acute inhalation toxicity	: Dust may cause sore throat and pains in the lungs and chest., Respiratory disorder, Inhalation may provoke the following symptoms:
Skin corrosion/irritation	: rabbit, Result: No skin irritation, Classification: No skin irritation, OECD Test Guideline 404, GLP: yes
Serious eye damage/eye irritation	: rabbit, Result: No eye irritation, Classification: No eye irritation, OECD Test Guideline 405, GLP: yes
	: Contact with eyes may cause irritation.
Respiratory or skin sensitisation	: mouse, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 429, GLP: yes
Further information	: Prolonged or repeated inhalation may cause damage to the lungs.

titanium dioxide :

Acute oral toxicity : LD50: > 10,000 mg/kg, rat

Acute dermal toxicity : LD50: > 10,000 mg/kg, rabbit

aluminium :
Acute inhalation toxicity : LC50: 0.888 mg/l, 4 h, rat, dust/mist

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12. Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

Toxicity to bacteria : No data available

Components:

2,6-di-tert-butyl-p-cresol :

Toxicity to fish : LC50: > 0.57 mg/l, 96 h, Danio rerio (zebra fish), OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50: > 0.17 mg/l, 48 h, Daphnia magna (Water flea)

Toxicity to algae : EC50: > 0.42 mg/l, 72 h, Desmodesmus subspicatus (green algae)

M-Factor : 1

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 0.39 mg/l, 21 d, Daphnia magna (Water flea)

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Graphite :

Toxicity to fish : LC50: > 100 mg/l, 96 h, Danio rerio (zebra fish), OECD Test Guideline 203, GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50: > 100 mg/l, 48 h, Daphnia magna (Water flea), OECD Test Guideline 202, GLP: yes

Toxicity to algae : EC50: > 100 mg/l, 72 h, Pseudokirchneriella subcapitata

(green algae), OECD Test Guideline 201, GLP: yes

aluminium :

Toxicity to fish : LC50: 0.12 mg/l, 96 h

M-Factor : 1

Talc (Mg3H2(SiO3)4) :

Toxicity to fish : LC50: > 100 mg/l, 96 h, Danio rerio (zebra fish), semi-static test, GLP: yes

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

12.2 Persistence and degradability

Product:

Biodegradability : No data available

Physico-chemical removability : No data available

Components:

2,6-di-tert-butyl-p-cresol :

Biodegradability : Primary biodegradation, 4.5 %, Result: not rapidly biodegradable, Exposure time: 28 d, activated sludge, OECD 301 C

12.3 Bioaccumulative potential

Product:

Bioaccumulation : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)., This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.4 Mobility in soil

Product:

Mobility : No data available

Distribution among environmental compartments : No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

2,6-di-tert-butyl-p-cresol :

Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not

considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Additional ecological information : Harmful to aquatic life with long lasting effects.

13. Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.

: Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging : Empty containers can be landfilled, when in accordance with the local regulations.

14. Transport information

14.1 UN number
ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.2 Proper shipping name
ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.3 Transport hazard class
ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.4 Packing group
ADR Not dangerous goods
IMDG Not dangerous goods
IATA

Not dangerous goods

14.5 Environmental hazards

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.6 Special precautions for user
No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not available

15. Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
Major Accident Hazard Legislation	: 96/82/EC not applicable Update:

15.2 Chemical Safety Assessment
This information is not available.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R11	Highly flammable.
R50	Very toxic to aquatic organisms.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements referred to under sections 2 and 3.

H228	Flammable solid.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

METAFLUX 70-85 Lubricating Metal Paste

Further information

All information and instructions in this safety datasheets were compiled to the best of our knowledge and are based on the information available to us. The data provided are intended to describe the product in relation to the required safety measures; they are neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and do not justify any contractual legal relationships.