

WOLFRACOAT C

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : WOLFRACOAT C

Article-No. : 099113

Manufacturer or supplier's details

Company : Klüber Lubrication München
Geisenhausenerstr. 7
81379 München
Deutschland
Tel: +49 (0) 89 7876 0
Fax: +49 (0) 89 7876 333
info@klueber.com

E-mail address of person responsible for the SDS : mcm@klueber.com
Material Compliance Management

National contact : Klüber Lubrication Australia Pty. Ltd.
1st Floor, 3 Brand Drive
P.O. Box 4
Thomastown Victoria 3074 (Melbourne)
Australia
Tel: +61 3 9464 7577
Fax: +61 3 9464 7588
kluber.mel@au.klueber.com

Emergency telephone number : +61 3 9464 7577 (9am-5pm AEST, Mon-Fri)
+11 49 89 7876 700 (24hrs)

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

Restrictions on use : Restricted to professional users.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

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GHS label elements

Not a hazardous substance or mixture.

Other hazards which do not result in classification

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Synthetic hydrocarbon oil
silicate
solid lubricant

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
copper	7440-50-8	>= 1 -< 10
graphite (synthetic)	7782-42-5	>= 1 -< 10
Titanium dioxide	13463-67-7	>= 1 -< 10
Aluminium powder (desensitized)	7429-90-5	>= 1 -< 10
Amines, N-tallow alkyltrimethylenedi-, oleates	61791-53-5	>= 1 -< 10
N-alkylated benzotriazole	94270-86-7	>= 0.1 -< 1
Quartz (SiO ₂); respirable fraction	14808-60-7	>= 0.1 -< 1

SECTION 4. 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 : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

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

If swallowed : Move the victim to fresh air.

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If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : No information available.
None known.

Notes to physician : No information available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire-fighting : Fire may cause evolution of:
Carbon oxides
Metal oxides
Nitrogen oxides (NOx)

Specific extinguishing methods : Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
Exposure to decomposition products may be a hazard to health.

Hazchem Code : 2Z

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : 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).
Do not breathe vapours, aerosols.
Refer to protective measures listed in sections 7 and 8.

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

Methods and materials for : Clean up promptly by sweeping or vacuum.

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containment and cleaning up Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling :
- Do not breathe vapours or spray mist.
 - Avoid contact with skin and eyes.
 - For personal protection see section 8.
 - Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
 - 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 get in eyes or mouth or on skin.
 - Do not get on skin or clothing.
 - Do not ingest.
 - Do not repack.
 - Do not re-use empty containers.
 - These safety instructions also apply to empty packaging which may still contain product residues.
 - Keep container closed when not in use.
 - Avoid inhalation of vapour or mist.
-
- Avoid contact with skin and eyes.
- For personal protection see section 8.
- Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
- 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 get in eyes or mouth or on skin.
- Do not get on skin or clothing.
- 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.
- Hygiene measures :
- Wash face, hands and any exposed skin thoroughly after handling.
- Conditions for safe storage :
- Store in original container.
 - Keep container closed when not in use.
 - Keep in a dry, cool and well-ventilated place.
 - Containers which are opened must be carefully resealed and

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kept upright to prevent leakage.
Store in accordance with the particular national regulations.
Keep in properly labelled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
copper	7440-50-8	TWA (Fumes)	0.2 mg/m ³	AU OEL
		TWA (Dusts and mist)	1 mg/m ³	AU OEL
		TWA (Dust and mist)	1 mg/m ³ (Copper)	ACGIH
		TWA (Fumes)	0.2 mg/m ³ (Copper)	ACGIH
graphite (synthetic)	7782-42-5	TWA (Respirable dust)	3 mg/m ³	AU OEL
	Further information: Containing no asbestos and < 1% crystalline silica			
		TWA (Respirable fraction)	2 mg/m ³	ACGIH
Titanium dioxide	13463-67-7	TWA	10 mg/m ³	AU OEL
	Further information: This value is for inhalable dust containing no asbestos and < 1% crystalline silica			
		TWA	10 mg/m ³	ACGIH
		TWA	10 mg/m ³ (Titanium dioxide)	ACGIH
Aluminium powder (desensitized)	7429-90-5	TWA (Dust)	10 mg/m ³	AU OEL
Quartz (SiO ₂); respirable fraction	14808-60-7	TWA (Respirable dust)	0.1 mg/m ³	AU OEL
		TWA (Respirable fraction)	0.025 mg/m ³	ACGIH

Engineering measures : none

Personal protective equipment

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type P

Hand protection

Material : Nitrile rubber

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Protective index : Class 1

Remarks : Wear protective gloves. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. 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

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Colour : grey

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable

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

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

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Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

Density : 1.01 g/cm³ (20 °C)

Bulk density : No data available

Solubility(ies)

 Water solubility : insoluble

 Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

 Viscosity, dynamic : No data available

 Viscosity, kinematic : No data available

Explosive properties : Not explosive

Oxidizing properties : No data available

Sublimation point : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

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

Conditions to avoid : No conditions to be specially mentioned.

Incompatible materials : No materials to be especially mentioned.

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

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SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Symptoms: Redness, Local irritation

Components:

copper:

Acute oral toxicity : LD50 (Rat): 482 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 5.11 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 436
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

graphite (synthetic):

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 423
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat): > 2,000 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Titanium dioxide:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

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Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : (Rat): > 5.09 mg/l
Method: OECD Test Guideline 403
GLP: no

Aluminium powder (desensitized):

Acute inhalation toxicity : LC50 (Rat): > 5.09 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Amines, N-tallow alkyltrimethylenedi-, oleates:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

N-alkylated benzotriazole:

Acute oral toxicity : LD50 (Rat): 3,313 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

copper:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

graphite (synthetic):

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation

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Titanium dioxide:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : no

Aluminium powder (desensitized):

Species : Rabbit
Assessment : No skin irritation
Result : No skin irritation

Amines, N-tallow alkyltrimethylenedi-, oleates:

Species : Rabbit
Assessment : Irritating to skin.
Result : Irritating to skin.

N-alkylated benzotriazole:

Species : Rabbit
Assessment : Irritating to skin.
Method : Draize Test
Result : Irritating to skin.

Serious eye damage/eye irritation

Product:

Remarks : This information is not available.

Components:

copper:

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation
Method : OECD Test Guideline 405
GLP : yes

graphite (synthetic):

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation
Method : OECD Test Guideline 405

Titanium dioxide:

Species : Rabbit
Result : No eye irritation

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Assessment : No eye irritation
Method : OECD Test Guideline 405

Aluminium powder (desensitized):

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation

Amines, N-tallow alkyltrimethylenedi-, oleates:

Species : Rabbit
Result : Irritating to eyes.
Assessment : Irritating to eyes.
Method : OECD Test Guideline 405

N-alkylated benzotriazole:

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation
Method : Draize Test

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

copper:

Test Type : Maximisation Test
Species : Guinea pig
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.
GLP : yes

graphite (synthetic):

Species : Mouse
Method : OECD Test Guideline 429
Result : negative

Titanium dioxide:

Species : Mouse
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 429
Result : Does not cause skin sensitisation.

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Aluminium powder (desensitized):

Species : Guinea pig
Assessment : Did not cause sensitisation on laboratory animals.
Result : Did not cause sensitisation on laboratory animals.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Assessment : Does not cause skin sensitisation.
Result : Does not cause skin sensitisation.

N-alkylated benzotriazole:

Test Type : Maximisation Test
Species : Guinea pig
Assessment : The product is a skin sensitiser, sub-category 1B.
Method : OECD Test Guideline 406
Result : The product is a skin sensitiser, sub-category 1B.

Chronic toxicity

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available
Genotoxicity in vivo : Remarks: No data available

Components:

copper:

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

graphite (synthetic):

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Method: OECD Test Guideline 471
Result: negative

Test Type: gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Titanium dioxide:

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

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Amines, N-tallow alkyltrimethylenedi-, oleates:

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

N-alkylated benzotriazole:

Genotoxicity in vitro : Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Product:

Remarks : No data available

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Components:

copper:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Titanium dioxide:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

N-alkylated benzotriazole:

Carcinogenicity - Assessment : Carcinogenicity classification not possible from current data.

Quartz (SiO₂); respirable fraction:

Carcinogenicity - Assessment : Human carcinogen.

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Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

copper:

Reproductive toxicity - Assessment : No toxicity to reproduction
No toxicity to reproduction

graphite (synthetic):

Effects on fertility : Species: Rat
Application Route: Oral
General Toxicity F1: NOAEL: 813 mg/kg body weight
Method: OECD Test Guideline 422

Titanium dioxide:

Reproductive toxicity - Assessment : No toxicity to reproduction
No effects on or via lactation

Amines, N-tallow alkyltrimethylenedi-, oleates:

Reproductive toxicity - Assessment : No toxicity to reproduction
No toxicity to reproduction

N-alkylated benzotriazole:

Effects on fertility : Species: Rat
Application Route: Oral
General Toxicity - Parent: NOAEL: 45 mg/kg body weight
General Toxicity F1: NOAEL: 45 mg/kg body weight
Fertility: NOAEL: 150 mg/kg body weight
Method: OECD Test Guideline 422

Effects on foetal development : Species: Rat
Application Route: Oral
Duration of Single Treatment: 28 h
General Toxicity Maternal: NOAEL: 45 mg/kg body weight
Developmental Toxicity: NOAEL: 45 mg/kg body weight
Method: OECD Test Guideline 422

Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.
No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

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STOT - single exposure

Components:

copper:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Titanium dioxide:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

N-alkylated benzotriazole:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Components:

copper:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Titanium dioxide:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Exposure routes : Ingestion
Assessment : May cause damage to organs through prolonged or repeated exposure.

N-alkylated benzotriazole:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Quartz (SiO₂); respirable fraction:

Exposure routes : Inhalation
Target Organs : Lungs

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Further information

Product:

Remarks : Information given is based on data on the components and the toxicology of similar products.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: Very toxic to aquatic organisms.

Toxicity to daphnia and other :
aquatic invertebrates : Remarks: No data available

Toxicity to algae :
Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Components:

copper:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.094 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.0338 mg/l
aquatic invertebrates : Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : NOEC (Pseudokirchneriella subcapitata (green algae)): 37.6
mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic tox- : 10
icity)

Toxicity to fish (Chronic tox- : NOEC: 0.021 mg/l
icity) : Exposure time: 27 d

M-Factor (Chronic aquatic : 1
toxicity)

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Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

graphite (synthetic):

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Titanium dioxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Aluminium powder (desensitized):

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.12 mg/l
Exposure time: 96 h
Test Type: static test
Remarks: No toxicity at the limit of solubility

Ecotoxicology Assessment

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

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

Amines, N-tallow alkyltrimethylenedi-, oleates:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 0.1 - 1 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.1 - 1 mg/l
Exposure time: 48 h

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Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 0.01 - 0.1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): > 0.1 - 1 mg/l
Exposure time: 21 d
Test Type: Reproduction Test
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

N-alkylated benzotriazole:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): 1.3 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.05 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 0.762 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

M-Factor (Chronic aquatic toxicity) : 1

Toxicity to microorganisms : EC20 (activated sludge): 15 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209

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Ecotoxicology Assessment

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

Persistence and degradability

Product:

Biodegradability : Remarks: No data available
Physico-chemical removability : Remarks: No data available

Components:

copper:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

graphite (synthetic):

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

Amines, N-tallow alkyltrimethylenedi-, oleates:

Biodegradability : Result: rapidly biodegradable

N-alkylated benzotriazole:

Biodegradability : Primary biodegradation
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: < 10 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Components:

Amines, N-tallow alkyltrimethylenedi-, oleates:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

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N-alkylated benzotriazole:

Bioaccumulation : Bioconcentration factor (BCF): 1,676

Partition coefficient: n-octanol/water : Remarks: Not applicable

Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

Other adverse effects

Product:

Additional ecological information : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Components:

copper:

Results of PBT and vPvB assessment : Remarks: Not applicable

Titanium dioxide:

Results of PBT and vPvB assessment : Non-classified vPvB substance Non-classified PBT substance

Amines, N-tallow alkyltrimethylenedi-, oleates:

Results of PBT and vPvB assessment : Non-classified PBT substance Non-classified vPvB substance

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as

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the unused product.
Dispose of waste product or used containers according to local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
(Tallow aminoleate, Copper metal powder)
Class : 9
Packing group : III
Labels : Class 9 - Miscellaneous dangerous substances and articles
Packing instruction (cargo aircraft) : 956
Packing instruction (passenger aircraft) : 956
Environmentally hazardous : yes

IMDG-Code

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Tallow aminoleate, Copper metal powder)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

ADG

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Class : 9
Packing group : III
Labels : 9

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Hazchem Code : 2Z

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

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

Standard for the Uniform Scheduling of Medicines and Poisons : Schedule 6

Prohibition/Licensing Requirements : There is no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.

SECTION 16. OTHER INFORMATION

Revision Date : 31.05.2019

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.

ACGIH / TWA : 8-hour, time-weighted average
AU OEL / TWA : Exposure standard - time weighted average

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - Internation-

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al Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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