Product Name: cedis Drying Capsules

REF: 87300, 87307, 87309

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

1.1. Product identifier
Trade name
cedis Drying Capsules

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the Substance/Mixture
Desiccant for chemical and pharmaceutical products, food, electronic and optical components.

1.3. Details of the supplier of the safety data sheet
Manufacturer/distributor: egger Otoplastik+Labortechnik GmbH
Street/POB-No.: Aybühlweg 59
Postal code/city/country: 87439 Kempten/Germany
Telephone: +49 831 58113-60
Telefax: +49 831 58113-14
Internet: www.egger-labor.com
E-mail: sales@egger-labor.de

1.4. Emergency telephone number: +49 89 19240
Emergency number: Munich, Germany, (toxicological dep. of the II. Med. Hospital)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)
No classification.

Classification (67/548/EEC, 1999/45/EC)
No classification.

2.2. Label elements
Labelling (REGULATION (EC) No 1272/2008)
No labelling required.

2.3. Other hazards
No data available
Silicone dioxide
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Ammonium iron bis(sulphate)
No data available.

SECTION 3: Composition/inforformation on ingredients

3.2. Mixtures
Chemical nature
Mixture

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
silicone dioxide	7631-86-9 231-545-4 / 01-2119379499-16			>= 93
Ammonium iron bis(sulfate) dodecahydrate	7783-83-7 233-382-4			<= 5

SECTION 4: First aid measures

4.1. Description of first aid measure
If inhaled
Remove to fresh air. If symptoms persist, call a physician.

In case of skin contact
Wash off with soap and water. If skin irritation occurs, seek medical advice/attention.

In case of eye contact
Rinse with plenty of water. If eye irritation persists, consult a specialist.

If swallowed
Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Obtain medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms
No information available.

Risks
No information available.

4.3. Indication of any imediate medical attention and special treatment needed
Treatment
No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding enviroment.

Unsuitable extinguishing media
None known.

5.2. Special hazards arising from the substance or mixture
Specific hazards during firefighting
nitrogen oxides (NOx)
sulfric oxides (SOx)

5.3. Advice for firefighters
Special protective equipment for firefighters
In the event of fire, wear self-contained breathing apparatus.

Further information
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation.

6.2. Environmental precautions
Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up
Use mechanical handling equipment. Avoid dust formation. Pick up and transfer to properly labelled containers.

6.4. Reference to other sections
For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Avoid dust formation. Provide sufficient air exchange and/or exhaust in work rooms. Avoid exceeding the given occupational exposure limits (see section 8).

Advice on protection against fire and explosion
No special precautions required.

Hygiene measures
Handle in accordance with good industrial hygine and safety practice. Keep working clothes separately.

Dust explosion class
No data available.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers
Store in accordance with the particular national regulations.

Further information on storage conditions
Store in tightly closed containers in a dry place.

7.3. Specific end use(s)
No data avialable.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
silicone dioxide	7931-86-9	TWA (Inhalable)	6 mg/m³	2005-04-06	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 MDHS 14/3 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 respitatory 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 airbone material that enters the nose and mouth during breathing and is therefore abailable for deposition in the respiratory tract. Respirable dust approximates to the fraction that pentrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS 14/3. Where dusts contain components that have their own assignend WEL, all the relevant limits should bei complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.				
		TWA (Respirable)	2,4 mg/m³	2005-04-06	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 MDHS 14/3 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 respitatory 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 airbone material that enters the nose and mouth during breathing and is therefore abailable for deposition in the respiratory tract. Respirable dust approximates to the fraction that pentrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS 14/3. Where dusts contain components that have their own assignend WEL, all the relevant limits should bei complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.				
Ammonium iron (III) sulphate dodecahydrate	7783-83-7	TWA	1 mg/m³	2005-04-06	GB EH40
Further information	Iron				
		STEL	2 mg/m³	2005-04-06	GB EH40
Further information	Iron				

DNEL Silicone dioxide
End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term local effects
Value: 4 mg/kg

Ammonium iron bis(sulphate)
No data available.

PNEC Silicone dioxid
No data available.

Ammonium iron bis(sulphate)
No data available.

8.2. Exposure controls
Engineering measures
Dust must be extracted directly at the point of origin.

Personal protective equipment
Eye protection
Safety glasses.

Hand protection
Material: Butyl-rubber, Natural rubber, Nitrile rubber.
Remarks: The data about break through time/strength of material is not valid for undissolved solids/dust.

Skin and body protection
Wear suitable protective clothing.

Respiratory protection
Avoid breathing dust.
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Respiratory protective device with particle filter EN 143.

Enviromenmental exposure controls
General advice
Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: granular
Colour: orange
Odour: odourless
Odour Threshold: No data available.

ph	> 2,0 - 5,0, Concentration: 50,00 g/l, at 20 °C (aqueous suspension)
Melting point/range	> 1.000 °C

Boiling point/boiling range	No data available.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability	No data available.
Lower expolsion limit	No data available.
Upper explosion limit	No data available.
Vapour pressure	Not applicable.
Relative vapour density	Remarks: Not applicable.
Density	No data available.
Bulk density	680 - 780 kg/m^3
Water solubility	practically insoluble.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	No data available.
Thermal decompostion	> 150 °C
Viscosity, dynamic	Not applicable.
Viscosity, kinematic	Not applicable.
Oxidizing properties	No data available.

9.2. Other information
Flammability (contact with water)
No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity
No hazards to be specially mentioned.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
None known.

10.5. Incompatible materials
Materials to avoid
None known.

10.6. Hazardous decomposition products
Other information
Ammonia

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Product:
Acute oral toxicity
No data available.

Acute inhalation toxicity
No data available.

Acute dermal toxicity
No data available.

Skin corrosion/irritation
No data available.

Serious eye damage/eye irritation
No data available.

Respiratory or skin sensitisation
No data available.

Germ cell mutagenicity
Genotoxicity in vitro
No data available.

Genotoxicity in vitro
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Teratogenicity
No data available.

STOT - single exposure
Remarks: No data available

Repeated dose toxicity
Remarks: No data available.

STOT - repeated exposure
Remarks: No data available.

Further information
None known.

Components:
Silicone dioxide
Acute oral toxicity
LD50 Oral: > 3.100 mg/kg
Method: OECD Test Guideline 401
GLP: no

Acute inhalation toxicity
LC0 Rat, male and female: 140 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403
GLP: yes
The substance or mixture has no acute inhalation toxicity.
Remarks: (maximum technically producible dust concentration)

Acute dermal toxicity
LD50 Dermal Rabbit: > 5.000 mg/kg
Method: No information available.
GLP: no

Skin corrosion/irritation
Species: Rabbit
Exposure time: 4 h
Result: No skin irritation
Method: OECD Test Guideline 404

Serious eye damage/eye irritation
Species: Rabbit
Result: Mild eye irritation
Method: OECD Test Guideline 405

Rspiratory or skin sensitisation
Patch test on human volunteers did not demonstrate sensitisation properties.

Germ cell mutagenicity
Genotoxicity in vitro
Type: Ames test
Test species: Salmonella typhimurium, E. coli with and without metabolic activation
Result: negative
Method: OECD Test Guideline 471
GLP: yes
In vitro tests did not show mutagenic effects
Type: Chromosome aberration test in vitro
Test species: Chinese hamster ovary (CHO) cells with and without metabolic activation
Result: negative
Method: OECD Test Guidline 473
GLP: yes
In vitro tests did not show mutagenic effects

Genotoxicity in vivo
No data available

Carcinogenicity
No evidence of carcinogenicity in animal studies.

Reproductive toxicity
No data available

Teratogenicity
No data available

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

Repeated dose toxicity
Rat, male and female: NOAEL: >= 4.000 mg/kg
Application Route: Oral
Exposure time: 90-day
Method: OECD Test Guideline 408

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

Further information
None known.

Ammonium iron bis(sulfate) dodecahydrate
Acute oral toxicity
No data available.

Acute inhalation toxicity
No data available.

Acute dermal toxicity
No data available.

Skin corrosion/irritation
No data available.

Serious eye damage/eye irritation
No data available.

Respiratory or skin sensitisation
No data 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.

STOT - single exposure
Remarks. No data available.

Repeated dose toxicity
Remarks: No data available.

STOT - repeated exposure
Remarks: No data available.

Further information
None known.

SECTION 12: Ecological information

12.1. Toxicity
Product:
Toxicity to fish
No data available.

Toxicity to daphnia and other aquatic invertebrates
No data available.

Toxicity to algae
No data available.

Toxicity to bacteria
No data available.

Toxicity to fish (Chronic toxicity)
No data available.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
No data available.

Toxicity to soil dwelling organisms
No data available.

Plant toxicity
No data available.

Toxicity to terrestrial organisms
No data available.

Components:
Silicone dioxide
Toxicity to fish
LL0 (Danio rerio (zebra fish)): 10.000 mg/l
Exposure time: 96 h
Test Method: static test

Test substance: Read across
Method: OECD Test Guideline 203
GLP: No information available

Toxicity to daphnia and other aquatic invertebrates
EL0 (Daphnia magna (Water flea)): 1.000 mg/l
Exposure time: 24 h
Test Method: static test
Test substance: Read across
Method: OECD Test Guideline 202
GLP: No information available.

Toxicity to algae
EL50 (Scenedesmus subspicatus): > 10.000 mg/l
Exposure time: 72 h
Test substance: aluminium sodium silicate (Read across)
Method: OECD Test Guideline 201
GLP: yes

Toxicity to bacteria
GLP
No data available.

Toxicity to fish (Chronic toxicity)
No data available.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
No data available.

Toxicity to soil dwelling organisms
No data available.

Plant toxicity
No data available.

Toxicity to terrestrial organisms
No data available.

Ammonium iron bis(sulfate) dodecahydrate
Toxicity to fish
No data available.

Toxicity to daphnia and other aquatic invertebrates
No data available.

Toxicity to algae
No data available.

Toxicity to bacteria
No data available.

Toxicity to fish (Chronic toxicity)
No data available.

Toxicity to daphnia and other aquastic invertebrates (Chronic toxicity)
No data available.

Toxicity to soil dwelling organisms
No data available.

Plant toxicity
No data available.

Toxicity to terrestrial organisms
No data available.

12.2. Persistence and degradability
Product:
Biodegradability
No data available.

Stability in water
No data available.

Components:
Silicone dioxide
Biodegradability
The methods for determining biodegradability are not applicable to inorganic substances.

Stability in water
No data available.

Ammonium iron bis(sulfate) dodecahydrate
Biodegradability
The methods for determining biodegradability are not applicable to inorganic substances.

Stability in water
No data available.

12.3. Bioaccumulative potential
Product:
Bioaccumulation
No data available.

Partition coefficient: n-octanol/water
Not applicable.

Components:
Silicone dioxide
Bioaccumulation
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Partition coefficient: n-octanol/water
Not applcable.

12.4. Mobility in soil
Product:
Mobility
No data available.

Components:
Silicone dioxide
Mobility
No data available.

Ammonium iron bis(sulfate) dodecahydrate
Mobility
No data available.

12.5. Results of PBT and vPvB assessment
Product:
Assessment
No data available.

Components:
Silicone dioxide
Assessment
This substance is not considered to be persistent, bioaccumulating and toxic (PBT).

Ammonium iron bis(sulfate) dodecahydrate
Assessment
No data available.

12.6. Other adverse effects
Product:
Ozone-Depletion Potential
No data available.

Additional ecological information
None known.

Components:
Silicone dioxide
Ozone-Depletion Potential
No data available

Additional ecological information
None known.

Ammonium iron bis(sulfate) dodecahydrate
Ozone-Depletion Potential
No data available

Additional ecological information
None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product
In accordance with local and national regulations.
This product cannot be classified with disposal identification key acc. to the EU disposal directives as a classification results from the intended utilisation purpose of the consumer.

SECTION 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. Enviromental hazards
ADR Not dangerous goods.
IMDG Not dangerous goods.
IATA Not dangerous goods.

14.6. Special precautions for user
For personal protection see section 8.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No data available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Major Accident Hazard Legislation 96/82/EC
Update: 16. Dezember 2003
Is not subject to the Seveso II Directive.

ZEU_SEVES3
Update: Not applicable.

15.2. Cemical Safety Assessment
No.

SECTION 16: Other information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportaition, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.