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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revised on / Version: 27.06.2011 / 0008
Replaces revision of / Version: 19.01.2011 / 0007
Valid from: 27.06.2011
PDF print date: 28.06.2011
Cera Tec 300ml Art.: 3721

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

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

Relevant identified uses of the substance or mixture:

Protection against wear

Sector of use [SU]:

SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 - Consumer uses: Private households (=general public = consumers)

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]:

PC17 - Hydraulic fluids

PC24 - Lubricants, greases, release products

Process category [PROC]:

PROC 1 - Use in closed process, no likelihood of exposure.

PROC 2 - Use in closed, continuous process with occasional controlled exposure

PROC 8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

PROC 8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

PROC 9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC20 - Heat and pressure transfer fluids in dispersive, professional use but closed systems

Environmental Release Category [ERC]:

ERC 4 - Industrial use of processing aids in processes and products, not becoming part of articles

ERC 7 - Industrial use of substances in closed systems

ERC 9a - Wide dispersive indoor use of substances in closed systems

ERC 9b - Wide dispersive outdoor use of substances in closed systems

Article Categories [AC]:

AC99 - Not required.

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH, Jerg-Wieland-Straße 4, D-89081 Ulm-Lehr

Telephone (+49) 0731-1420-0, Fax (+49) 0731-1420-88

E-mail address of the competent person: info@chemical-check.de, k.schnurbusch@chemical-check.de

1.4 Emergency telephone

Advisory office in case of poisoning:

Telephone number of the company in case of emergencies:

Tel.: (+49) 0731-1420-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Not determined

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments).

N, Dangerous for the environment, R51-53

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2.2 Label elements

2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)

Not determined

2.2.2 Labeling according to Directives 67/548/EEC and 1999/45/EC (including amendments).

Symbols: N

Indications of danger:

Dangerous for the environment

R-phrases:

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases:

29/35 Do not empty into drains

dispose of this material and its container in a safe way.

61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Additions: n.a.

2.3 Other hazards

The mixture contains no vPvB substance (vPvB = very persistent, very bioaccumulative).

The mixture contains no PBT substance (PBT = persistent, bioaccumulative, toxic).

Product can compose a film on the water surface, which can prevent oxygen exchange.

Hazardous to drinking water, on escape of even small quantities.



SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

Substituted ammonium molybdate	
Registration number (ECHA)	-
Index	---
EINECS, ELINCS	-
CAS	CAS n.v.
content %	2,5-<5
Symbol	C/N
R-phrases	34-50-53
Classification categories / Indications of danger	Corrosive, Dangerous for the environment
Hazard class/Hazard category	Hazard statement
Skin Corr./1B	H314
Aquatic Acute/1	H400
Aquatic Chronic/1	H410
Zinc alkyl dithiophosphate	
Registration number (ECHA)	-
Index	---
EINECS, ELINCS	272-028-3
CAS	CAS 68649-42-3
content %	0,1-<1
Symbol	Xi/N
R-phrases	38-41-51-53
Classification categories / Indications of danger	Dangerous for the environment, Irritant
Hazard class/Hazard category	Hazard statement
Skin Irrit./2	H315
Eye Dam./1	H318
Aquatic Chronic/2	H411

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diboron trioxide	
Registration number (ECHA)	01-2119486655-24-XXXX
Index	005-008-00-8
EINECS, ELINCS	215-125-8
CAS	CAS 1303-86-2
content %	0,01-<1
Symbol	---
R-phrases	60(Repr.Cat.2)-61(Repr.Cat.2)
Classification categories / Indications of danger	Toxic to reproduction
Hazard class/Hazard category	Hazard statement
Repr./1B	H360FD

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
 Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.
 Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.
 Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Where relevant delayed occurring symptoms and effects will be found in section 11. or at the exposure routes under section 4.1.

The following may occur:

Irritation of the eyes
 Product removes fat.
 Drying of the skin.

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO2
 Dry extinguisher
 Foam
 Cool container at risk with water.

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon
 Oxides of nitrogen
 Oxides of sulphur
 Toxic pyrolysis products.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
 Protective respirator with independent air supply.

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According to size of fire
 Full protection, if necessary
 Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.
 Avoid formation of oil mist.
 Remove possible causes of ignition - do not smoke.
 Avoid contact with eyes or skin.
 If applicable, caution - risk of slipping

6.2 Environmental precautions

If leakage occurs, dam up.
 Prevent from entering drainage system.
 Prevent surface and ground-water infiltration, as well as ground penetration.
 If accidental entry into drainage system occurs, inform responsible authorities.
 Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.
 Oil binder

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

Ensure good ventilation.
 Avoid formation of oil mist.
 Avoid contact with eyes or skin.
 Do not carry cleaning cloths soaked in product in trouser pockets.
 Do not heat to temperatures close to flash point.
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
 Observe directions on label and instructions for use.
 Use working methods according to operating instructions.
 General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Store product closed and only in original packing.
 Not to be stored in gangways or stair wells.
 Solvent resistant floor
 Do not store with oxidizing agents.
 Store in a well ventilated place.
 Protect from direct sunlight and warming.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

GB	Chemical Name	diboron trioxide	Content %:0,01- <1
	WEL-TWA: 10 mg/m3	WEL-STEL: 20 mg/m3	---
	BMGV: ---	Other information: ---	
GB	Chemical Name	Oil mist, mineral	Content %:

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WEL-TWA: 5 mg/m3 (ACGIH)	WEL-STEL: 10 mg/m3 (ACGIH)	---
BMGV: ---	Other information: ---	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
 Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
 Protective gloves, oil resistant (EN 374)
 If applicable
 Protective nitrile gloves (EN 374)
 Protective Neopren gloves (EN 374).
 Protective hand cream recommended.

Skin protection - Other:
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection:
 Normally not necessary.
 With oil mist formation:
 Filter A2 P2 (EN 14387), code colour brown, white
 Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
 If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

Additional information on hand protection - No tests have been performed.
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
 Selection of materials derived from glove manufacturer's indications.
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Liquid
 Colour: Orange

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Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	>100 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	0,893 g/ml (20°C)
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	~250 mPas (20°C)
Explosive properties:	Not determined
Oxidising properties:	Not determined

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

See also Subsection 10.4 to 10.6.
The product has not been tested.

10.2 Chemical stability

See also Subsection 10.4 to 10.6.
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

See also Subsection 10.4 to 10.6.
No dangerous reactions are known.

10.4 Conditions to avoid

See also section 7.
Strong heat

10.5 Incompatible materials

See also section 7.
Avoid contact with strong oxidizing agents.
Avoid contact with strong acids.

10.6 Hazardous decomposition products

See also Subsection 10.4 to 10.6.
See also section 5.2
No decomposition when used as directed.

SECTION 11: Toxicological information

The product was not tested.
Classification according to calculation procedure.

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Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	t					n.d.a.

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Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Respiratory tract irritation:						n.d.a.
Repeated dose toxicity:						n.d.a.
Symptoms:						n.d.a.

Zinc alkyl dithiophosphate						
Toxicity/effect	Endpoint t	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>2000		Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat		

diboron trioxide						
Toxicity/effect	Endpoint t	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	3000	mg/kg	Rat		
Symptoms:						breathing difficulties, diarrhoea, heart/circulatory disorders, headaches, cramps, paralysis, gastrointestinal disturbances, dizziness, nausea and vomiting.

SECTION 12: Ecological information

The product was not tested.
 Isolate as much as possible with an oil separator.
 According to the recipe, contains no AOX.

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Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and degradability:							Not readily but inherent biodegradable.
Bioaccumulative potential:							Concentration in organisms possible.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.

Zinc alkyl dithiophosphate							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Persistence and degradability:							Not readily biodegradable

diboron trioxide							
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Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	5600	mg/l	(Gambusia affinis)		

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of. EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)
 13 02 05 mineral-based non-chlorinated engine, gear and lubricating oils

Recommendation:

Pay attention to local and national official regulations
 Implement substance recycling.
 E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations
 Empty container completely.
 Uncontaminated packaging can be recycled.
 Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

UN number: 3082

Transport by road/by rail (ADR/RID)

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SUBSTITUTED AMMONIUM MOLYBDATE)
 Transport hazard class(es): 9
 Packing group: III
 Classification code: M6
 LQ (ADR 2011): 5 L
 LQ (ADR 2009): 7
 Environmental hazards: environmentally hazardous
 Tunnel restriction code: E



Transport by sea (IMDG-code)

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SUBSTITUTED AMMONIUM MOLYBDATE)
 Transport hazard class(es): 9
 Packing group: III
 EmS: F-A, S-F
 Marine Pollutant: Yes
 Environmental hazards: environmentally hazardous



Transport by air (IATA)

UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (SUBSTITUTED AMMONIUM MOLYBDATE)
 Transport hazard class(es): 9
 Packing group: III
 Environmental hazards: environmentally hazardous



Special precautions for user

Persons employed in transporting dangerous goods must be trained.
 All persons involved in transporting must observe safety regulations.
 Precautions must be taken to prevent damage.

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

Freighted as packaged goods rather than in bulk, therefore not applicable.

Additional information:

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Danger code and packing code on request.

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.

Observe restrictions: Yes

Regulation (EC) No 1907/2006, Annex XVII

15.2 Chemical safety assessment

No information available at present.

SECTION 16: Other information

These details refer to the product as it is delivered.

Revised sections: 3, 8, 11, 12

The following statements are the indicated R-phrases / H-phrases and classification codes (GHS/CLP) for the ingredients (listed in Section 3).

- 34 Causes burns.
- 41 Risk of serious damage to eyes.
- 50 Very toxic to aquatic organisms.
- 51 Toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 38 Irritating to skin.
- 60 May impair fertility.
- 61 May cause harm to the unborn child.
- H360FD May damage fertility. May damage the unborn child.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- 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.

Skin Corr.-Skin corrosion
Aquatic Acute-Hazardous to the aquatic environment - acute
Aquatic Chronic-Hazardous to the aquatic environment - chronic
Skin Irrit.-Skin irritation
Eye Dam.-Serious eye damage
Repr.-Reproductive toxicity

Legend:

n.a. = not applicable / n.v., n.av. = not available / n.g., n.c. = not checked / k.D.v., n.d.a. = no data available
WEL = Workplace Exposure Limit EH40, TWA = Long-term exposure limit (8-hour TWA (= time weighted average) reference period), STEL = Short-term exposure limit (15-minute reference period) / BMGV = Biological monitoring guidance value EH40
AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany) / BGW = "Biologischer Grenzwert" (biological limit value, Germany)
VbF = Regulations for flammable liquids (Austria)
VOC = Volatile organic compounds
AOX = Adsorbable organic halogen compounds
ATE = Acute Toxicity Estimates according to Regulation (EC) 1272/2008 (CLP)

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.

These statements were made by:

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