

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

hebrochemie



Impulse für Mensch und Umwelt

## G574-AE4 hebro®tefdax

Version: 2.0

Revision Date 22.05.2015

Print Date 23.05.2015

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

#### 1.1 Product identifier

Trade name : G574-AE4 hebro®tefdax

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

Use of the Sub-  
stance/Mixture : Special lubricant

#### 1.3 Details of the supplier of the safety data sheet

Company : hebro chemie- ZN der Rockwood Specialties Group  
GmbH  
Rostocker Str. 40  
41199 Mönchengladbach

Contact person : Wolfgang Schaffers  
Telephone : +49 (0) 2166 6009-0  
Telefax : +49 (0) 2166 6009-99

Contact person product safety : Abteilung Produktsicherheit  
Telephone : +49(0)2166 6009-176  
E-mail address : wolfgang.schaffers@chemetall.com

#### 1.4 Emergency telephone number

: Giftinformationszentrum Erfurt:  
+49 (0) 361 730 730

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Aerosols, Category 1	H222: Extremely flammable aerosol. H229: Pressurised container: May burst if heated.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.

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

Extremely flammable	R12: Extremely flammable.
Irritant	R36: Irritating to eyes. R67: Vapours may cause drowsiness and dizziness.

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### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.  
H229 Pressurised container: May burst if heated.  
H318 Causes serious eye damage.  
H336 May cause drowsiness or dizziness.

Precautionary statements : P102 Keep out of reach of children.  
**Prevention:**  
P260 Do not breathe spray.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P251 Do not pierce or burn, even after use.  
P211 Do not spray on an open flame or other ignition source.  
P280 Wear eye protection/ face protection.  
**Response:**  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.  
**Storage:**  
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

- 67-63-0 Propan-2-ol
- 5593-70-4 DO NOT USE! USE CM5593704 (=REGISTRATION!) Titanium-tetrabutanolat

Labelling according to EC Directives (1999/45/EC)

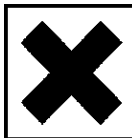
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Hazard pictograms :



Extremely flammable

Irritant

R-phrase(s) :

R12  
R36  
R67

Extremely flammable.  
Irritating to eyes.  
Vapours may cause drowsiness and dizziness.

S-phrase(s) :

S23  
S26  
  
S29/56  
  
S46  
  
S51

Do not breathe spray.  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.  
If swallowed, seek medical advice immediately and show this container or label.  
Use only in well-ventilated areas.

Special labelling of certain mixtures :

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50 °C.  
Do not pierce or burn, even after use.  
Do not spray on a naked flame or any incandescent material.  
Keep away from sources of ignition - No smoking.  
Keep out of the reach of children.

**2.3 Other hazards**

The information required is contained in this Material Safety Data Sheet.

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical nature : Fluoropolymer dispersions  
Solvent mixture

**Hazardous components**

Chemical Name	CAS-No. EC-No.	Classification (67/548/EEC)	Classification (REGULATION)	Concentration [%]
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	Registration number		(EC) No 1272/2008)	
Ethanol	64-17-5 200-578-6 01-2119457610-43	F; R11	Flam. Liq. 2; H225  Eye Irrit. 2; H319	>= 50 - < 65
Propan-2-ol	67-63-0 200-661-7 01-2119457558-25	F; R11  Xi; R36  R67	Flam. Liq. 2; H225  Eye Irrit. 2; H319  STOT SE 3; H336	>= 25 - < 50
titanium-tetrabutanolate	5593-70-4 01-2119967423-33	R10  Xi; R37/38-R41  R67	Flam. Liq. 3; H226  Skin Irrit. 2; H315  Eye Dam. 1; H318  STOT SE 3; H336  STOT SE 3; H335	>= 3 - < 5
<b>DO NOT USE! USE CM5593704 (=REGISTRATION!) Titanium- tetrabutanolate</b>	5593-70-4 227-006-8	R10  Xi; R38-R41	Flam. Liq. 3; H226  Skin Irrit. 2; H315  Eye Dam. 1; H318	>= 1 - < 5

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.

For the full text of the Notas mentioned in this Section, see Section 16.

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Call a physician if symptoms occur.
- If inhaled : Provide fresh air.  
Keep patient warm and at rest.  
If symptoms persist, call a physician.
- In case of skin contact : Take off immediately all contaminated clothing.  
Wash skin thoroughly with soap and water or use recognized skin cleanser.  
Do NOT use solvents or thinners.
- In case of eye contact : Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.  
If eye irritation persists, consult a specialist.
- If swallowed : Call a physician immediately.  
Keep at rest.  
Do NOT induce vomiting.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.
- Risks : No information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

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

#### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire-fighting : Combustion may cause:  
Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide

#### 5.3 Advice for firefighters

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Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Use water spray to cool unopened containers.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Provide sufficient air exchange and/or exhaust in work rooms.  
Remove all sources of ignition.  
Do not breathe vapour.  
Refer to protective measures listed in sections 7 and 8.

#### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.  
Inform the relevant authorities if it enters sewers, aquatic environment or soil.

#### 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).  
Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

See chapter 8 and 13

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours or spray mist.  
When using do not eat, drink or smoke.  
For personal protection see section 8.  
Take precautionary measures against static discharges.  
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.  
Do not spray on a naked flame or any incandescent material.  
Keep away from sources of ignition - No smoking. Keep away from children.

Advice on protection against fire and explosion : Vapours are heavier than air and may spread along floors.

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### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.  
Follow the water regulations.

Further information on storage conditions : Keep only in the original container in a cool, well-ventilated place.  
Keep away from sources of ignition - No smoking.  
Keep away from heat.

Advice on common storage : Incompatible with oxidizing agents.

### 7.3 Specific end use(s)

Specific use(s) : Special lubricant

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,920 mg/m <sup>3</sup>	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			
Propan-2-ol	67-63-0	TWA	400 ppm 999 mg/m <sup>3</sup>	2006-09-01	GB EH40
	67-63-0	STEL	500 ppm 1,250 mg/m <sup>3</sup>	2006-09-01	GB EH40

#### DNEL/DMEL

Ethanol

: End Use: Workers DNEL  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 950 mg/m<sup>3</sup>

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Propan-2-ol : End Use: Workers DNEL  
Exposure routes: Inhalation  
Potential health effects: Long-term systemic effects  
Value: 500 mg/m<sup>3</sup>

End Use: Workers DNEL  
Exposure routes: Skin contact  
Potential health effects: Long-term systemic effects  
Value: 888 mg/kg bw/day

PNEC  
Propan-2-ol : Fresh water  
Value: 140.9 mg/l

Marine water  
Value: 140.9 mg/l

Sewage treatment plant  
Value: 2251 mg/l

Sediment  
Value: 552 mg/kg dry weight (d.w.)

Soil  
Value: 28 mg/kg dry weight (d.w.)

### 8.2 Exposure controls

#### Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

#### Personal protective equipment

Respiratory protection : Do not breathe gas/fumes/vapour/spray.  
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Eye protection : Safety glasses with side-shields

Skin and body protection : protective suit

Protective measures : Handle in accordance with good industrial hygiene and safety practice.  
Follow the skin protection plan.

#### Environmental exposure controls



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General advice : Do not flush into surface water or sanitary sewer system.  
Inform the relevant authorities if it enters sewers, aquatic environment or soil.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Appearance : aerosol

Colour : white

Odour : mild

Flash point : 12 °C

Ignition temperature : 425 °C

Lower explosion limit : 2.0 %(V)

Upper explosion limit : 15 %(V)

pH : Not applicable

Boiling point/boiling range : Method: DIN 51751

Vapour pressure : 5,750 hPa  
Information taken from reference works and the literature.

Density : 0.81 g/cm<sup>3</sup>  
at 20 °C  
Method: DIN 51757

Water solubility : insoluble

Flow time : 35 sec.  
at 20 °C  
4 mm  
Method: DIN 53211

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### 9.2 Other information

Explosivity : In use, may form flammable/explosive vapour-air mixture.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No hazards to be specially mentioned.

### 10.2 Chemical stability

The product is chemically stable.

### 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 decomposition if used as directed.

### 10.5 Incompatible materials

Materials to avoid : Oxidizing agents

### 10.6 Hazardous decomposition products

Risk of decomposition. : In case of fire hazardous decomposition products may be produced such as:  
Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide  
Nitrogen oxides (NO<sub>x</sub>)  
Smoke

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

#### Acute oral toxicity

Ethanol : LD50: 6,200 mg/kg  
Species: Rat

Propan-2-ol : LD50: 5,840 mg/kg  
Species: Rat  
Method: OECD Test Guideline 401

#### Acute inhalation toxicity

Ethanol : LC50: 124.7 mg/l

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Propan-2-ol : Exposure time: 4 h  
Species: Rat  
: LC50: 30 mg/l  
Exposure time: 4 h  
Species: Rat

Acute dermal toxicity  
Propan-2-ol : LD50: 13,900 mg/kg  
Species: Rabbit  
Method: OECD Test Guideline 402

### Skin corrosion/irritation

Skin irritation : Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin.  
May cause eye and skin irritation.

### Serious eye damage/eye irritation

Eye irritation : The liquid splashed in the eyes may cause irritation and reversible damage.

### Respiratory or skin sensitisation

Sensitisation : This information is not available.

### Carcinogenicity

Remarks : Not classifiable as a human carcinogen.

**Further information** : Health injuries are not known or expected under normal use.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish : No data available

Toxicity to fish  
Ethanol : LC50: 8,150 mg/l  
Exposure time: 48 h

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Propan-2-ol : Species: Leuciscus idus (Golden orfe)  
: LC50: 8,970 mg/l  
Exposure time: 48 h  
Species: Leuciscus idus (Golden orfe)  
  
: LC50: 9,640 mg/l  
Exposure time: 96 h  
Species: Pimephales promelas (Fathead minnow)

Toxicity to daphnia and other aquatic invertebrates  
Ethanol : EC50: 10,800 mg/l  
Exposure time: 24 h  
Species: Daphnia (water flea)  
Method: OECD Test Guideline 202

Propan-2-ol : LC50: 9,714 mg/l  
Exposure time: 24 h  
Species: Daphnia magna (Water flea)

Toxicity to algae  
Propan-2-ol : EC50: > 100 mg/l  
Exposure time: 72 h  
Species: Scenedesmus subspicatus

Toxicity to bacteria  
Propan-2-ol : IC50: > 100 mg/l  
Species: Bacteria

### 12.2 Persistence and degradability

Biodegradability : No data available

### 12.3 Bioaccumulative potential

Bioaccumulation : No data available

### 12.4 Mobility in soil

Mobility : No data available

### 12.5 Results of PBT and vPvB 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.

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### 12.6 Other adverse effects

Additional ecological information : Do not flush into surface water or sanitary sewer system.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.  
Do not let product enter drains.  
Do not dispose of with domestic refuse.

Packaging : The hazard and precautionary statements displayed on the label also apply to any residues left in the container.  
Do not dispose of with domestic refuse.

Contaminated packaging : Dispose of in accordance with local regulations.

Waste Code : 160504 gases in pressure containers (including halons) containing dangerous substances

## SECTION 14: Transport information

### ADR

UN number : 1950  
UN proper shipping name : AEROSOLS  
Transport hazard class(es) : 2  
Classification Code : 5F  
Limited Quantity (LQ) Inner : 1.00 L  
Packaging  
Maximum quantity : 30.00 KG  
Labels : 2.1  
Tunnel restriction code : (D)  
Environmentally hazardous : no

### IATA

UN number : 1950  
Description of the goods : Aerosols, flammable  
Class : 2.1  
Labels : 2.1

### IATA\_C

Packing instruction (cargo aircraft) : 203  
Packing instruction (LQ) : Y203  
Maximum quantity : 150.00 KG  
Environmentally hazardous : no

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### IATA\_P

Packing instruction (passenger aircraft) : 203  
Packing instruction (LQ) : Y203  
Maximum quantity : 75.00 KG  
Environmentally hazardous : no

### IMDG

UN number : 1950  
Description of the goods : AEROSOLS  
Class : 2.1  
Labels : 2.1  
EmS Number 1 : F-D  
EmS Number 2 : S-U  
Marine pollutant : no

**Shaded from sources of heat.  
"IMDG-Code segregation group not applicable".**

**Shaded from sources of heat.  
"IMDG-Code segregation group not applicable".**

### RID

UN number : 1950  
Description of the goods : AEROSOLS  
Transport hazard class(es) : 2  
Classification Code : 5F  
Hazard Identification Number : 23  
Labels : 2.1  
Limited Quantity (LQ) Inner : 1.00 L  
Packaging  
Maximum quantity : 30.00 KG  
Environmentally hazardous : no

## SECTION 15: Regulatory information

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

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.  
Regional or national implementations of GHS may not implement all hazard classes and categories.

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

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### SECTION 16: Other information

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

R10	Flammable.
R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R67	Vapours may cause drowsiness and dizziness.

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

H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

#### Further information

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.