

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878

**E051-B21 hebro®cut PS 2000**

Version: 2.10

Revision Date: 24.01.2025

Print Date: 25.01.2025

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

### 1.1 Product identifier

Trade name : E051-B21 hebro®cut PS 2000

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

Use of the Sub-  
stance/Mixture : Punching oil for the shaping of steel, stainless steel, aluminium and brass

### 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 : Zentrale hebro chemie  
Telephone : +49 (0) 2166 6009-0  
Telefax : +49 (0) 2166 6009-99

Contact person product safety : Abteilung Produktsicherheit  
Telephone : +49(0)2166 6009-311  
E-mail address : msds.de@hebro-chemie.de

### 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)

Eye irritation, Category 2 H319: Causes serious eye irritation.

Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

### 2.2 Label elements

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

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

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H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear eye protection/ face protection.

**Response:**

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

### Additional Labelling

EUH208 Contains Triisobutyl-phosphate. May produce an allergic reaction.

### 2.3 Other hazards

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.

Ecological information: This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

Toxicological information: This substance/mixture does not contain components considered to have endocrine disrupting properties for human health according to UK REACH Article 57(f).

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Preparation of mineral and vegetable oils plus extreme pressure additives

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
distillates (petroleum), heavy hydrocracked	64741-76-0 265-077-7 649-453-00-1 01-2119486951-26	Asp. Tox. 1; H304	>= 25 - < 50
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	4259-15-8 224-235-5 01-2119493635-27	Eye Dam. 1; H318 Aquatic Chronic 2; H411	>= 3 - < 10
		specific concentration	

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		limit Eye Dam. 1; H318 > 50 %	
Triisobutyl-phosphate	126-71-6 204-798-3 01-2119957118-32	Skin Sens. 1B; H317	>= 0.1 - < 1

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : If symptoms persist, call a physician.
- If inhaled : No special precautions required.
- In case of skin contact : After contact with skin, wash immediately with plenty of water.  
Take off all contaminated clothing immediately.
- In case of eye contact : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Seek medical treatment when symptoms develop due to contact with eyes.
- If swallowed : Immediately give large quantities of water to drink.  
Prevent vomiting if possible.

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

- Risks : Causes serious eye irritation.

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

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder  
Water spray jet
- 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:
- Hazardous combustion products : Carbon oxides

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### 5.3 Advice for firefighters

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

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## SECTION 6: Accidental release measures

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

Personal precautions : Handle in accordance with good industrial hygiene and safety practice.

### 6.2 Environmental precautions

Environmental precautions : Inform the relevant authorities if it enters sewers, aquatic environment or soil.

### 6.3 Methods and material 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

Refer to protective measures listed in sections 7 and 8., For disposal considerations see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.  
Ensure adequate ventilation.  
Avoid formation of aerosol.  
For personal protection see section 8.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

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

Requirements for storage areas and containers : Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep only in the original container at temperature not exceeding 50°C.

Further information on storage conditions : Keep away from heat. Protect from frost.

Recommended storage temperature : 5 - 40 °C

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## 7.3 Specific end use(s)

Specific use(s) : Punching oil for the shaping of steel, stainless steel, aluminium and brass

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
Zinc bis[O,O-bis(2-ethylhexyl)]bis(dithiophosphate)	Workers	Inhalation	Long-term systemic effects	6.6 mg/m <sup>3</sup>
Triisobutyl-phosphate	Workers	Inhalation	Long-term systemic effects	6.03 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	1.71 mg/kg bw/day

#### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Triisobutyl-phosphate	Fresh water	0.011 mg/l
	Marine water	0.0011 mg/l
	Sewage treatment plant	3.72 mg/l
	Intermittent use/release	0.11 mg/l
	Fresh water sediment	1.58 mg/kg
	Marine sediment	0.158 mg/kg
	Soil	0.308 mg/kg

### 8.2 Exposure controls

#### Personal protective equipment

Eye/face protection : Face-shield  
Safety glasses with side-shields conforming to EN166

#### Hand protection

Material : Protective gloves complying with EN 374.  
Break through time : > 480 min  
Protective index : Class 6

Material : Nitrile rubber  
Glove thickness : 0.4 mm

Material : butyl-rubber  
Glove thickness : 0.5 mm

Remarks : The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this

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has to be observed.

Skin and body protection	:	Chemical resistant protective clothing according to DIN EN 13034 (Type 6) Work uniform or laboratory coat.
Respiratory protection	:	If product forms vapours or aerosols wear breathing protection.
Filter type	:	ABEK-filter
Protective measures	:	When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Follow the skin protection plan.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	yellow
Odour	:	mild
Melting point/freezing point	:	not determined
Boiling point/boiling range	:	350 °C Method: DIN 51751
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	160 °C
Auto-ignition temperature	:	200 °C
pH	:	Not applicable
Viscosity Viscosity, dynamic	:	29 mPa*s (40 °C)

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Viscosity, kinematic : > 21 mm<sup>2</sup>/s (40 °C)

Solubility(ies)  
Water solubility : insoluble

Partition coefficient: n-  
octanol/water : Not applicable

Vapour pressure : not determined

Density : 0.89 g/cm<sup>3</sup> (20 °C)  
Method: DIN 51757

Relative vapour density : not determined

### 9.2 Other information

Explosives : no explosion risk

Substances and mixtures,  
which in contact with water,  
emit flammable gases : No data available

Metal corrosion rate : Not corrosive to metals

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 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 : None known.

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## 10.6 Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>)

Carbon monoxide

Smoke

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

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## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Not classified due to lack of data.

#### Components:

##### **Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):**

Acute oral toxicity : LD<sub>50</sub> (Rat):

##### **Triisobutyl-phosphate:**

Acute oral toxicity : LD<sub>50</sub> (Rat): 4,180 mg/kg

Acute inhalation toxicity : LC<sub>50</sub> (Rat): > 5.14 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD<sub>50</sub> (Rabbit): > 5,000 mg/kg

#### **Skin corrosion/irritation**

Not classified due to lack of data.

#### **Serious eye damage/eye irritation**

Causes serious eye irritation.

#### **Respiratory or skin sensitisation**

##### **Skin sensitisation**

Not classified due to lack of data.

##### **Respiratory sensitisation**

Not classified due to lack of data.

##### **Germ cell mutagenicity**

Not classified due to lack of data.

##### **Carcinogenicity**

Based on available data, the classification criteria are not met.

#### Product:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

#### **Reproductive toxicity**

Not classified due to lack of data.



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## **STOT - single exposure**

Not classified due to lack of data.

## **STOT - repeated exposure**

Not classified due to lack of data.

## **Aspiration toxicity**

Not classified due to lack of data.

## **11.2 Information on other hazards**

### **Endocrine disrupting properties**

#### **Product:**

Assessment : This substance/mixture does not contain components considered to have endocrine disrupting properties for human health according to UK REACH Article 57(f),

#### **Further information**

#### **Product:**

Remarks : Health injuries are not known or expected under normal use.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Components:**

##### **Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):**

Toxicity to fish : LC50 : 1 - 10 mg/l

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 1 - 10 mg/l

##### **Triisobutyl-phosphate:**

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 10 - 100 mg/l  
Exposure time: 96 h  
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l  
Exposure time: 24 h  
Method: DIN 38412

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 10 - 100 mg/l  
Exposure time: 72 h  
Method: DIN 38412

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 100 mg/l  
Exposure time: 16 h  
Method: DIN 38412

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## 12.2 Persistence and degradability

### Product:

Biodegradability : Remarks: No data available

### Components:

#### **Triisobutyl-phosphate:**

Biodegradability : Biodegradation: > 60 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
Remarks: Readily biodegradable.

## 12.3 Bioaccumulative potential

### Product:

Bioaccumulation : Remarks: No data available

## 12.4 Mobility in soil

### Product:

Mobility : Remarks: No data available

## 12.5 Results of PBT and vPvB assessment

### Product:

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

## 12.6 Endocrine disrupting properties

### Product:

Assessment : This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

## 12.7 Other adverse effects

### Product:

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

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Contaminated packaging : If recycling is not practicable, dispose of in compliance with local regulations.  
Since emptied containers retain product residues (vapour and/or liquid) follow all MSDS/label warnings after container is

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emptied.

Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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## SECTION 14: Transport information

### 14.1 UN number or ID number

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA\_P : Not regulated as a dangerous good

### 14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA\_P : Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA\_P : Not regulated as a dangerous good

### 14.4 Packing group

ADR : Not regulated as a dangerous good

RID : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA\_P (Passenger) : Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Not applicable

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	:	Conditions of restriction for the following entries should be considered: Number on list 3
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
Regulation (EC) on substances that deplete the ozone layer	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation	:	Not applicable

### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

## SECTION 16: Other information

### Full text of H-Statements

H304	:	May be fatal if swallowed and enters airways.
H317	:	May cause an allergic skin reaction.
H318	:	Causes serious eye damage.
H411	:	Toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Asp. Tox.	:	Aspiration hazard
Eye Dam.	:	Serious eye damage
Skin Sens.	:	Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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 as-

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sociated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

## Further information

Other 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.

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.

Guideline on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) : no component is listed

No PFAS are consciously added to the product concerning the restriction proposal for inclusion to REACH (Annex XVII).

## Classification of the mixture:

Eye Irrit. 2	H319
Aquatic Chronic 3	H412

## Classification procedure:

Calculation method
Calculation method

GB / EN