

**Safety data sheet**  
**according to Regulation (EC) No. 1907/2006 as amended from**  
**time to time**

Printing date 25.04.2025



Version-No. 7.0 (replaces version 6.0)

Revision: 25.04.2025

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

- **1.1. Product identifier**
- Trade name / Article-No: **KLEIBERIT 536.0 A**
- **Component:** A
- **UFI:** F3DX-90ET-A00P-JSJS
- **1.2. Relevant identified uses of the substance / mixture or uses advised against**  
For professional users only.
- **Application of the substance / the mixture** Adhesives
- **1.3. Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
KLEIBERIT SE & Co. KG  
Max-Becker-Str. 4  
76356 Weingarten  
Germany
- **Further information obtainable from:**  
phone: +49 (0) 7244 62-0  
FAX: +49 (0) 7244 700-0  
E-Mail: hse@kleiberit.com
- **1.4. Emergency telephone number:**  
**+44 1235 239670** European regional number (European languages)  
**112** Emergency telephone number for Malta  
**543 22 22** Icelandic University Hospital  
National Poisons Information Centre Ireland:  
**+353 (0)1 809 2166** Members of the public Number (8am-10pm)  
**+353 (0)1 809 2566** Healthcare professional telephone Number (24hrs)

**SECTION 2: Hazards identification**

- **2.1. Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008 - GHS/CLP**  
Acute Tox. 4      H302 Harmful if swallowed.  
Carc. 2      H351 Suspected of causing cancer.  
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **2.2. Label elements**
- **Hazard pictograms**  
   
GHS07 GHS08
- **Signal word** Warning
- **Hazard-determining components of labelling:**  
Tris(2-chloro-1-methylethyl) phosphate, reaction products  
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether  
diethylene glycol
- **Hazard statements**  
H302 Harmful if swallowed.

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EU

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H351 Suspected of causing cancer.

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P308+P313 IF exposed or concerned: Get medical advice/attention.

**2.3. Other hazards****Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.**Determination of endocrine-disrupting properties**

1244733-77-4 Tris(2-chloro-1-methylethyl) phosphate, reactionproducts: List II; III

**SECTION 3: Composition/information on ingredients****3.2. Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

Registry-No's	Identification / Classification GHS-CLP	%
CAS: 1244733-77-4 Reg.nr.: 01-2119486772-26-XXXX	Tris(2-chloro-1-methylethyl) phosphate, reactionproducts Carc. 2, H351; Acute Tox. 4, H302; Aquatic Chronic 3, H412	40-50%
CAS: 1179964-22-7 Reg.nr.: 01-2119971810-36-XXXX	2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether Acute Tox. 4, H302	20-30%
CAS: 112945-52-5 Reg.nr.: 01-2119379499-16-XXXX	Silicon dioxide, amorphous substance with a Community workplace exposure limit	≤3%
CAS: 77-99-6 Reg.nr.: 01-2119486799-10-XXXX	trimetilolpropane Repr. 2, H361fd	<2%
CAS: 111-46-6 Reg.nr.: 01-2119457857-21-XXXX	diethylene glycol Acute Tox. 4, H302	<2%
CAS: 37251-69-7	Ethylene oxide - propylene oxide copolymer mono(nonylphenyl) ether Aquatic Chronic 3, H412	<2%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****4.1. Description of first aid measures****General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:** Generally the product does not irritate the skin.**After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** Call for a doctor immediately.**4.2. Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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- **4.3. Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1. Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2. Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3. Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1. Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Particular danger of slipping on leaked/spilled product.
- **6.2. Environmental precautions:**  
Do not allow to enter surface or ground water.  
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3. Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.
- **6.4. Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1. Precautions for safe handling**  
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the vapour concentration below the workplace limit, wear an adequate respiratory protective device.  
Do not allow to reach ground water, water bodies or sewage system.  
Clean the pipe before decoupling
- **General protective and hygienic measures:** Keep good industrial hygiene.
- **7.2. Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Keep container tightly closed.
- **Information about storage in one common storage facility:** Observe the national regulations.
- **Further information about storage conditions:** None.
- **Storage class:** 11
- **7.3. Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1. Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **DNELs**  
  
**1244733-77-4 Tris(2-chloro-1-methylethyl) phosphate, reactionproducts**  
Dermal DNEL long term 2.91 mg/kg (human being)

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Inhalative DNEL short term 22.6 mg/m<sup>3</sup> (human being)  
 DNEL long term 8.2 mg/m<sup>3</sup> (human being)

**111-46-6 diethylene glycol**

Dermal DNEL long term 43 mg/kg (human being)  
 Inhalative DNEL long term 44 mg/m<sup>3</sup> (human being)

**PNECs****1244733-77-4 Tris(2-chloro-1-methylethyl) phosphate, reaction products**

PNEC- Freshwater 0.32 mg/l (not specified)  
 PNEC-seawater 0.032 mg/l (not specified)  
 PNEC-Freshwater sediment 11.5 mg/kg (not specified)  
 PNEC-Seawater sediment 1.15 mg/kg (not specified)  
 PNEC-soil 0.34 mg/kg (not specified)  
 PNEC-wastewater treatment plant 19.1 mg/l (not specified)

**1179964-22-7 2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether**

PNEC-wastewater treatment plant 10 mg/l (not specified)

**111-46-6 diethylene glycol**

PNEC- Freshwater 10 mg/l (not specified)  
 PNEC-seawater 1 mg/l (not specified)  
 PNEC-periodic release 10 mg/l (not specified)  
 PNEC-Freshwater sediment 20.9 mg/kg (not specified)  
 PNEC-Seawater sediment 2.09 mg/kg (not specified)  
 PNEC-soil 1.53 mg/kg (not specified)  
 PNEC-wastewater treatment plant 199.5 mg/l (not specified)

CAS No.	Designation of material	%	Type	Value	Unit
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**112945-52-5 Silicon dioxide, amorphous**

MAK (Germany) Long-term value: 0.02A mg/m<sup>3</sup>  
 vgl. Abschn. V

**8.2. Exposure controls**

limit the exposure to:  
 8 hours

**Appropriate engineering controls** No further data; see section 7.

**Individual protection measures, such as personal protective equipment**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Filter A

**Hand protection** Protective gloves

**Material of gloves** A Nitrile rubber - NBR: AlphaTec® (> 0,4 mm)

**Eye/face protection** Safety glasses

**Body protection:** Protective work clothing

**Environmental exposure controls** The floor surface in the facility has to be sealed.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties****General Information**

**Physical state**

Liquid

**Colour:**

Brown

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· Odour:	Weak, characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
· Boiling point or initial boiling point and boiling range	208 °C
· Flammability	Not applicable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	212 °C
· Auto-ignition temperature:	400 °C
· Decomposition temperature:	Not determined.
· pH	Not determined.
· Viscosity:	
· Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	8,000 mPas
· Solubility	
· water:	Not miscible or difficult to mix.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not determined.
· Density and/or relative density	
· Density at 20 °C:	ca. 1.18 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
· 9.2. Other information	
· Appearance:	
· Form:	Pasty
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Change in condition	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

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### SECTION 10: Stability and reactivity

- **10.1. Reactivity**  
see item 10.3  
No further relevant information available.
- **10.2. Chemical stability** Stable when stored and used properly.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3. Possibility of hazardous reactions** No dangerous reactions known.
- **10.4. Conditions to avoid** No further relevant information available.
- **10.5. Incompatible materials:** No further relevant information available.
- **10.6. Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.
- **LD/LC<sub>50</sub> values relevant for classification:**
  - 1244733-77-4 Tris(2-chloro-1-methylethyl) phosphate, reaction products**  
Oral LD<sub>50</sub> 500 mg/kg (rat)  
Dermal LD<sub>50</sub> >2,000 mg/kg (rabbit) (OECD 402)
  - 1179964-22-7 2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether**  
Oral LD<sub>50</sub> 732 mg/kg (rat) (OECD 401)  
Dermal LD<sub>50</sub> >2,000 mg/kg (rat) (OECD 402)
  - 112945-52-5 Silicon dioxide, amorphous**  
Oral LD<sub>50</sub> >5,000 mg/kg (rat)  
Dermal LD<sub>50</sub> >2,000 mg/kg (rabbit)
  - 77-99-6 trimetilolpropane**  
Oral LD<sub>50</sub> 14,700 mg/kg (rat) (OECD 401)  
Dermal LD<sub>50</sub> >10,000 mg/kg (rabbit) (OECD 402)
  - 111-46-6 diethylene glycol**  
Oral LD<sub>50</sub> 16,500 mg/kg (rat)  
Dermal LD<sub>50</sub> 13,300 mg/kg (rabbit)
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2. Information on other hazards**
- **Endocrine disrupting properties**

1244733-77-4 Tris(2-chloro-1-methylethyl) phosphate, reaction products: List II; III

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## SECTION 12: Ecological information

- **12.1. Toxicity**
- **Aquatic toxicity:**

### **1244733-77-4 Tris(2-chloro-1-methylethyl) phosphate, reaction products**

LC<sub>50</sub> 51 mg / l / 96h (Pimephales promelas)EC<sub>50</sub> 131 mg / l / 48h (water flea - daphnia)EC<sub>50</sub> 82 mg / l / 72h (green algae-Ps.kirchneriella subcapitata)

### **1179964-22-7 2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether**

LC<sub>50</sub> >100 mg / l / 96h (Zebrafish - Danio rerio) (OECD 203)LC<sub>50</sub> >100 mg / l / 48h (water flea - daphnia) (67/548/EWG, App. V, C.2.)IC<sub>50</sub> >100 mg / l / 72h (algae)

### **112945-52-5 Silicon dioxide, amorphous**

LC<sub>50</sub> >10,000 mg / l / 96h (Zebrafish - Danio rerio) (OECD 203)

### **77-99-6 trimetilolpropane**

EC<sub>50</sub> 13,000 mg / l / 48h (water flea - daphnia)

### **111-46-6 diethylene glycol**

LC<sub>50</sub> 75,200 mg / l / 96h (gold orfw - Leuciscus idus)EC<sub>50</sub> >10,000 mg / l / 48h (water flea - daphnia)EC<sub>50</sub> 9,362 mg / l / 96h (algae)

- **12.2. Persistence and degradability** No further relevant information available.
- **12.3. Bioaccumulative potential** No further relevant information available.
- **12.4. Mobility in soil** No further relevant information available.
- **12.5. Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6. Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7. Other adverse effects**
- **Additional ecological information:**

#### **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Danger to drinking water if even small quantities leak into the ground.

Do not allow product to reach sewage system or any water course.

## SECTION 13: Disposal considerations

- **13.1. Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**  
08 04 09\* waste adhesives and sealants containing organic solvents or other hazardous substances
- **Uncleaned packaging:**
- **Recommendation:**  
Non contaminated packagings may be recycled.  
Empty contaminated packagings thoroughly. Disposal must be made according to official regulations.

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**SECTION 14: Transport information**

- **14.1. UN number or ID number**
- **ADR, IMDG, IATA** Void
- **14.2. UN proper shipping name**
- **DOT, ADR, IMDG, IATA** Void
- **14.3. Transport hazard class(es)**
- **Class** Void
- **14.4. Packing group**
- **ADR, IMDG, IATA** Void
- **14.5. Environmental hazards:** Not applicable.
- **14.6. Special precautions for user** Not applicable.
- **14.7. Maritime transport in bulk according to IMO instruments** Not applicable.

**SECTION 15: Regulatory information**

- **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**  
See position no 2 - Hazards Identification
- **Directive 2012/18/EU - Seveso-III:**
- **Named dangerous substances - ANNEX I** None of the ingredients is included.
- **Regulation (EC) No 1907/2006 - REACH, ANNEX XVII** Conditions of restriction: 3
- **Regulation (EU) No 649/2012**  
None of the ingredients is listed.
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
None of the ingredients is listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS** (Upper limit value for the purpose of licensing under Article 5(3))  
None of the ingredients is listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**  
None of the ingredients is listed.
- **Regulation (EC) No 273/2004 on drug precursors**  
None of the ingredients is listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**  
None of the ingredients is listed.
- **National regulations:**
- **D: Waterhazard class** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations:** For professional users only.
- **VOC - 2010/75/EU [g/L]:** 0.0 g/l
- **VOC - 2010/75/EU [%]:** 0.00 %
- **National Regulations (others than Germany or EU)**
- **French Regulation (Decree No. 2011-321):** class A+
- **15.2. Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H302 Harmful if swallowed.

H351 Suspected of causing cancer.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H412 Harmful to aquatic life with long lasting effects.

· **Department issuing SDS:** Safety & Environment

· **Version number of previous version:** 6.0

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Carc. 2: Carcinogenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3