

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 24.08.2017

Version number 4

Revision: 24.08.2017

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

- 1.1 Product identifier

- Trade name: **ergo 5400**

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

No further relevant information available.

- Application of the substance / the mixture Adhesives

- 1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier:

Kisling AG

Motorenstrasse 102

CH-8620 Wetzikon

Telefon: +41-(0) 58-272 0 272

Telefax: +41-(0) 58-272 0 273

- Further information obtainable from: Safety Department

- Department issuing MSDS: ergo@kisling.com

- 1.4 Emergency telephone number: Tox Info Suisse: 145 / +41-44-2 51 51 51

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- Hazard pictograms



GHS07

- Signal word Warning

- Hazard-determining components of labelling:

ethyl 2-cyanoacrylate

- Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

- Precautionary statements

P261 Avoid breathing vapours.

P280 Wear protective gloves / eye protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER/doctor if you feel unwell.

P332+P313 If skin irritation occurs: Get medical advice/attention.

- Additional information:

EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

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- Labelling of packages where the contents do not exceed 125 ml
- Hazard pictograms



GHS07

- Signal word Warning
- Hazard-determining components of labelling:
ethyl 2-cyanoacrylate
- Hazard statements Void
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- Description: Adhesive

- Dangerous components:

CAS: 7085-85-0 EINECS: 230-391-5 Index number: 607-236-00-9 Reg.nr.: 01-2119527766-29-xxxx	ethyl 2-cyanoacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	50-<100%
CAS: 123-31-9 EINECS: 204-617-8 Index number: 604-005-00-4	1,4-dihydroxybenzene Muta. 2, H341; Carc. 2, H351; Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4, H302; Skin Sens. 1, H317	0.025-<0.1%

- 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: Immediately remove any clothing soiled by the product.
- After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
After contact with skin, wash immediately with plenty of soap and water.
If skin irritation continues, consult a doctor.
- After eye contact:
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
- After swallowing:
Rinse out mouth and then drink plenty of water.
If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
- 4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide
Danger of forming toxic pyrolysis products.
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Avoid contact with the eyes and skin.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or any water course.
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).
Ensure adequate ventilation.
Dispose of the material collected according to regulations.
- **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 10 for information on "stability and reactivity".
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **Information about fire - and explosion protection:** Keep ignition sources away - Do not smoke.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Store under lock and key and out of the reach of children.
Protect from heat and direct sunlight.
- **Storage class (TRGS 510, Storage of hazardous substances in non-stationary containers):** 10-13

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- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

- 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

7085-85-0 ethyl 2-cyanoacrylate

MAK (Switzerland) Long-term value: 9 mg/m³, 2 ppm

123-31-9 1,4-dihydroxybenzene

MAK (Switzerland) Short-term value: 2 e mg/m³
Long-term value: 2 e mg/m³
H S C2 M2;

- DNELs

7085-85-0 ethyl 2-cyanoacrylate

Inhalative	Langzeit, Lokale Effekte	9.25 mg/m ³ (all) 9.25 mg/m ³ (ber)
	Langzeit, Systemische Effekte	9.25 mg/m ³ (all) 9.25 mg/m ³ (ber)

123-31-9 1,4-dihydroxybenzene

Dermal	Langzeit, Systemische Effekte	64 mg/kg bw/day (all) 128 mg/kg bw/day (ber)
Inhalative	Langzeit, Lokale Effekte	0.5 mg/m ³ (all) 1 mg/m ³ (ber)
	Langzeit, Systemische Effekte	1.74 mg/m ³ (all) 7 mg/m ³ (ber)

- PNECs

123-31-9 1,4-dihydroxybenzene

PNEC Süßwasser	0.114 mg/l
PNEC Süßwassersediment	0.00098 mg/kg Sediment
PNEC Meerwasser	0.0114 mg/l
PNEC Boden	0.000129 mg/kg Boden
PNEC Kläranlage	0.71 mg/l
PNEC Meerwassersediment	0.000097 mg/kg Sediment

- Additional information:

The lists valid during the making were used as basis.
Ensure good ventilation/exhaustion at the workplace.
Relative humidity should be at least 50-60%.

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

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- Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Filter B

- Protection of hands:

Protective gloves (EN 374)

Check protective gloves prior to each use for their proper condition.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

Find below a list of appropriate protective gloves for chemical surrounding:

Permeation time / penetration time: = 60 minutes (DIN EN 374):

Butyl, Nr. 0898

Permeation time / penetration time: = 30 minutes (DIN EN 374):

Chloropren Nitril II, Nr. 0717

Nitril I, Nr. 0730, 0732, 0733, 0736, 0737, 0738, 0739 oder 0836

Viton, Nr. 0890

Butyl II, Nr. 0897

of KCL company (e-mail: vertrieb@kcl.de).

The recommendation is based exclusively on the chemical compatibility and the test according to EN374 under laboratory conditions.

Requirements can vary according to the use. Therefore, please always take into account the glove supplier's recommendations.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Permeation time / penetration time: see above (material of gloves)

- Not suitable are gloves made of the following materials: Cotton gloves**- Eye protection:** Safety glasses**SECTION 9: Physical and chemical properties****- 9.1 Information on basic physical and chemical properties****- General Information****- Appearance:**

Form: Fluid
Colour: Colourless

- Odour: Irritant**- Odour threshold:** Not determined.**- pH-value:** Not determined.**- Change in condition****Melting point/freezing point:** Undetermined.**Initial boiling point and boiling range:** >35°C**- Flash point:** >80°C**- Flammability (solid, gas):** Not applicable.

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- Ignition temperature:	
Decomposition temperature:	Not determined.
- Auto-ignition temperature:	Product is not self-igniting.
- Explosive properties:	Product does not present an explosion hazard.
- Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
- Vapour pressure:	Not determined.
- Density at 20°C:	1,06g/cm ³ (DIN 51757)
- Relative density	Not determined.
- Vapour density	Not determined.
- Evaporation rate	Not determined.
- Solubility in / Miscibility with water:	Hydrolised.
- Partition coefficient: n-octanol/water:	Not determined.
- Viscosity:	
Dynamic at 25°C:	20-40mPas
Kinematic:	Not determined.
- 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Protect from heat and direct sunlight.
- **10.3 Possibility of hazardous reactions**
Exothermic polymerisation.
Reacts with alcohols, amines, aqueous acids and alkalis.
- **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 products of decomposition if used and stored according to specifications.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- LD/LC50 values relevant for classification:

7085-85-0 ethyl 2-cyanoacrylate

Oral	LD50	>5,000 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rab) (OECD 402)

123-31-9 1,4-dihydroxybenzene

Oral	LD50	375 mg/kg (rat) (OECD 401)
Dermal	LD50	>2,000 mg/kg (rab) (OECD 402)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes skin irritation.

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- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
No experimentally found toxicological data are available for this preparation.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause respiratory irritation.
- **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.

SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

123-31-9 1,4-dihydroxybenzene

LC50/96 h	0.638 mg/l (Oncorhynchus mykiss)
EC50/48 h	0.061 mg/l (Daphnia magna)
EC50/72 h	0.33 mg/l (Pseudokirchneriella subcapitata)

- **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.
- **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 ground water, water course or undiluted sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.

- European waste catalogue

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG** Void

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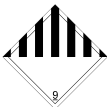
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- IATA	UN3334
- 14.2 UN proper shipping name - ADR, IMDG - IATA	Void Aviation regulated liquid, n.o.s. (Cyanoacrylate ester)
- 14.3 Transport hazard class(es) - ADR, ADN, IMDG - Class	Void
- IATA 	
- Class - Label	9 Miscellaneous dangerous substances and articles. 9
- 14.4 Packing group - ADR, IMDG, IATA	Void
- 14.5 Environmental hazards:	Not applicable.
- 14.6 Special precautions for user	Not applicable.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
- Transport/Additional information:	
- IATA - Remarks:	Primary packs containing not more than 500ml are unregulated by this mode of transport and may be shipped unrestricted.
- UN "Model Regulation":	Void

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- National regulations:
- Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H341 Suspected of causing genetic defects.
- H351 Suspected of causing cancer.

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H400 Very toxic to aquatic life.

- Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

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

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

- * Data compared to the previous version altered.

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