

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.12.2022

Version number 5 (replaces version 4)

Revision: 16.12.2022

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

1.1 Product identifier

Trade name: **Akelux Retouching Pen**

Article number: 62030

UFI: 4284-M0AM-D00F-6PQC

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

Dyestuff/Colouring agent

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
 Lechstrasse 28
 D 90451 Nürnberg

Tel. +49(0)911-642960
 Fax. +49(0)911-644456
 e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
 Tel. +49(0)911-64296-59
 Reachable during the following office hours:
 Monday – Thursday from 07:30 a.m. to 16:30 p.m.
 Friday from 07:30 a.m. to 13:30 p.m.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 3 H226 Flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

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



GHS02 GHS07

Signal word

Warning

Hazard-determining components of labelling:

Hazard statements

1-methoxy-2-propanol

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing vapours.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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P302+P352 IF ON SKIN: Wash with plenty of water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P314 Get medical advice/attention if you feel unwell.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

- Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 107-98-2 EINECS: 203-539-1 Index number: 603-064-00-3 Reg.nr.: 01-2119457435-35 02-2119752510-47-0000	1-methoxy-2-propanol	Flam. Liq. 3, H226 STOT SE 3, H336	50-100%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 Reg.nr.: 01-2119457610-43	ethanol	Flam. Liq. 2, H225 Eye Irrit. 2, H319	25-50%

- 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**

- 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.
- After swallowing: If symptoms persist consult doctor.

4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulty
 Headache
 Dizziness
 Dizziness
 Gastric or intestinal disorders
 Nausea
 Danger of impaired breathing.

· Hazards

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with added, activated carbon.

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.

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· **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:
Carbon monoxide (CO)

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.

· **Additional information**

Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation
Keep away from ignition sources.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.

· **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.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· **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**

Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.

· **Information about fire - and explosion protection:**

Highly volatile, flammable constituents are released during processing.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **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:**

Store away from foodstuffs.
Store away from flammable substances.

· **Further information about storage conditions:**

Store receptacle in a well ventilated area.
Keep container tightly sealed.

· **Storage class:**

3

· **7.3 Specific end use(s)**

No further relevant information available.

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SECTION 8: Exposure controls/personal protection**· 8.1 Control parameters****· Ingredients with limit values that require monitoring at the workplace:****107-98-2 1-methoxy-2-propanol**

IOELV	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Skin
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· DNELs**107-98-2 1-methoxy-2-propanol**

Oral	DNEL (Langzeit-wiederholt)	33 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	50.6 mg/kg bw/day (ARB) 18.1 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	553.5 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	369 mg/m ³ Air (ARB) 43.9 mg/m ³ Air (BEV)

64-17-5 ethanol

Oral	DNEL (Langzeit-wiederholt)	87 mg/kg bw/day (BEV)
Dermal	DNEL (Kurzzeit-akut)	950 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	343 mg/kg bw/day (ARB) 206 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	1,900 mg/m ³ Air (ARB)
		950 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	950 mg/m ³ Air (ARB) 114 mg/m ³ Air (BEV)

· PNECs**107-98-2 1-methoxy-2-propanol**

PNEC (wässrig)	100 mg/l (KA) 1 mg/l (MW) 10 mg/l (SW) 100 mg/l (WAS)
PNEC (fest)	2.47 mg/kg Trockengew (BO) 4.17 mg/kg Trockengew (MWS) 41.6 mg/kg Trockengew (SWS)

64-17-5 ethanol

PNEC (wässrig)	580 mg/l (KA) 0.79 mg/l (MW) 0.96 mg/l (SW) 2.75 mg/l (WAS)
PNEC (fest)	0.63 mg/kg Trockengew (BO) 0.72 mg/kg Trockengew (FUT) 2.9 mg/kg Trockengew (MWS) 3.6 mg/kg Trockengew (SWS)

· Additional information: The lists valid during the making were used as basis.**· 8.2 Exposure controls****· Appropriate engineering controls** No further data; see item 7.

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- Individual protection measures, such as personal protective equipment
 - General protective and hygienic measures:
 - Do not eat, drink, smoke or sniff while working.
 - Use skin protection cream for skin protection.
 - Wash hands before breaks and at the end of work.
 - Respiratory protection:
 - Suitable respiratory protective device recommended.
 - Filter AX
 - Hand protection
 - Preventive skin protection by use of skin-protecting agents is recommended.
 - After use of gloves apply skin-cleaning agents and skin cosmetics.
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Protective gloves

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

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves
 - Nitrile rubber, NBR
 - Recommended thickness of the material: ≥ 0.75 mm
 - 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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - Not suitable are gloves made of the following materials:
 - Leather gloves
 - Natural rubber, NR
 - Strong material gloves
 - Eye/face protection
 -
-
- 

Tightly sealed goggles
- Body protection:
 - Protective work clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- General Information
- Colour: According to product specification
- Odour: Specific type
- Melting point/freezing point: Undetermined.
- Boiling point or initial boiling point and boiling range 78 °C
- Lower and upper explosion limit
- Lower: 2.3 Vol %
- Upper: 20 Vol %
- Flash point: 23 °C
- Ignition temperature: 270 °C
- pH Not determined.
- Viscosity:
- Kinematic viscosity at 20 °C 13 s (DIN 53211/4)
- Dynamic: Not determined.

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- Solubility
- water: Fully miscible.
- Vapour pressure at 20 °C: 59 hPa
- Density and/or relative density
- Density at 20 °C: 0.92 g/cm³

· 9.2 Other information

- Appearance:
- Form: Fluid
- Important information on protection of health and environment, and on safety.
- Auto-ignition temperature: Product is not selfigniting.
- Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- Solvent content:
- Organic solvents: 92.0 %
- Solids content: 8.0 %

· Information with regard to physical hazard classes

- Explosives Void
- Flammable gases Void
- Aerosols Void
- Oxidising gases Void
- Gases under pressure Void
- Flammable liquids Flammable liquid and vapour.
- 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

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with acids, alkalis and oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)

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SECTION 11: Toxicological information**· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**· Acute toxicity Based on available data, the classification criteria are not met.· LD/LC50 values relevant for classification:**ATE (Acute Toxicity Estimates)**

Dermal	LD50	3,670 mg/kg
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107-98-2 1-methoxy-2-propanol

Oral	LD50	4,016 mg/kg (rat)
Dermal	LD50	13,500 mg/kg (rbt)
Inhalative	LC50	27.596 mg/l (rat)
	LC50/4 h	54.6 mg/l (rat)

64-17-5 ethanol

Oral	LD50	10,470 mg/kg (rat) (OECD 401)
	NOAEL-Werte	>3,000 mg/kg (rat) (OECD 451)
Dermal	LD50	>2,000 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4h	20,000 mg/m3 (rat)
	LC50/4 h	120 mg/l (rat) (OECD 403)
		5,012 mg/l (ceriodaphnia Dubai)
	LC50/48h	12,340 mg/l (daphnia magna)
		8,150 mg/l (Leuciscus idus)

· Skin corrosion/irritation	Based on available data, the classification criteria are not met.
· Serious eye damage/irritation	Causes serious eye irritation.
· 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	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 drowsiness or dizziness.
· 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

None of the ingredients is listed.

SECTION 12: Ecological information**· 12.1 Toxicity**· Aquatic toxicity:**107-98-2 1-methoxy-2-propanol**

EC50/96h	>1,000 mg/l (BES)
EC50	>1,000 mg/l (BES) (OECD 209)
	>1,000 mg/l (Pseudokirchneriella subcapitata)
LC 0/96h	>4,600 mg/l (Leuciscus idus)
EC50/48h	23,300 mg/l (daphnia magna)
LC50/96h	>100 mg/l (daphnia magna)
	>100 mg/l (Desmodesmus subspicatus)
	6,812 mg/l (Leuciscus idus) (DIN 38412)

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	>1,000 mg/l (Oncorhynchus mykiss) (OECD 203) 20,800 mg/l (pimephales promelas) (ASTM)
64-17-5 ethanol	
LC50/24h	11,200 mg/l (Salmo gairdneri)
EC50/48h	9,268-14,221 mg/l (daphnia magna) 12,900 mg/l (Selenastrum capricornutum) (OECD 201)
EC0	6,500 mg/l (pseudomonas putida) 5,000 mg/l (scenedesmus quadricauda)
EC10	11.5 mg/l (CHV)
EC50/72h	275 mg/l (CHV) (OECD 201)
LC50/96h	13,000 mg/l (Oncorhynchus mykiss) (OECD 203) 15,300 mg/l (pimephales promelas) 11,200 mg/l (Salmo gairdneri) (US EPA method E03-05)

· **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**

The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**

· Additional ecological information:

· General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

· Uncleaned packaging:

· Recommendation: Disposal must be made according to official regulations.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN number or ID number	
· ADR, IMDG, IATA	UN1263
· 14.2 UN proper shipping name	
· ADR	1263 PAINT
· IMDG, IATA	PAINT

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· 14.3 Transport hazard class(es)**· ADR****· Class**

3 (F1) Flammable liquids.

· Label

3

· IMDG, IATA**· Class**

3 Flammable liquids.

· Label

3

· 14.4 Packing group**· ADR, IMDG, IATA**

III

· 14.5 Environmental hazards:**· Marine pollutant:**

No

· 14.6 Special precautions for user

Warning: Flammable liquids.

· Hazard identification number (Kemler code):

30

· EMS Number:

F-E, S-E

· Stowage Category

A

· 14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

· Transport/Additional information:**· ADR****· Limited quantities (LQ)**

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

D/E

· IMDG**· Limited quantities (LQ)**

5L

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· UN "Model Regulation":

UN 1263 PAINT, 3, III

SECTION 15: Regulatory information**· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****· Directive 2012/18/EU****· Named dangerous substances - ANNEX I**

None of the ingredients is listed.

· Seveso category

P5c FLAMMABLE LIQUIDS

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· Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t

· Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· 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:

· Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· VOC EU 846.4 g/l

· **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.

· Department issuing SDS:

Laboratory

· Contact:

Elke Hake

Fon ++49 (0)911 64296-59

@mail E.Hake@akemi.de

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· Date of previous version:

· Version number of previous version:

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· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
 ICAO: International Civil Aviation Organisation
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
 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
 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)

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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
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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