

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.03.2016

Version: 7

Revision: 07.03.2016

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

- **1.1 Product identifier**
- **Trade name:** Leitsilberlack für EL-FORM
- **Article number:** 625040-1
- **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** Electroplating auxiliary
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Schütz Dental GmbH, Dieselstrasse 5-6, D-61191 Rosbach v.d.H. (Germany)
Tel.: +49 (0)6003/814-0 Fax: +49 (0)6003/814-900
www.schuetz-dental.de; e-mail: info@schuetz-dental.de
- **Further information obtainable from:** F&E, Tel. +49 (0)6003/814-100
- **1.4 Emergency telephone number:**
+49 (0) 6003 8140 Schütz Dental (8:00 - 17:00 Uhr) or
+49 (0) 6131 19240 Poison Information Center, University Mainz (24 h)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Flam. Liq. 2 H225 Highly flammable liquid and vapour.
STOT SE 3 H336 May cause drowsiness or dizziness.

- **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**



GHS02 GHS07

- **Signal word** Danger
- **Hazard-determining components of labelling:**
1-ethoxypropan-2-ol
- **Hazard statements**
H225 Highly flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
- **Precautionary statements**

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241	Use explosion-proof electrical/ventilating/lighting/equipment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Labelling of packages where the contents do not exceed 125 ml**
- **Hazard pictograms**



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- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
1-ethoxypropan-2-ol
- **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

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Suspension of silver with solvents

· **Dangerous components:**

CAS: 1569-02-4 EINECS: 216-374-5	<i>1-ethoxypropan-2-ol</i> Flam. Liq. 3, H226; STOT SE 3, H336	10-25%
CAS: 64-17-5 EINECS: 200-578-6	<i>ethanol</i> Flam. Liq. 2, H225	10-25%
CAS: 67-64-1 EINECS: 200-662-2	<i>acetone</i> Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	2,5-10%
CAS: 141-78-6 EINECS: 205-500-4	<i>ethyl acetate</i> Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	< 2,5%

- **Additional information** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information** Take affected persons out of danger area and lay down.
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately rinse with water.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
- **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.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Water spray
Foam
Carbon dioxide
Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **5.2 Special hazards arising from the substance or mixture** Can form explosive gas-air mixtures.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

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SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Keep people at a distance and stay on the windward side.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources

· 6.2 Environmental precautions: 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).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 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.

· Information about fire - and explosion protection:

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: Storage between 10 °C and 25 °C.

· Information about storage in one common storage facility: Not required.

· Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

· 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:

7440-22-4 silver

MAK: 0,1 mg/m³

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

67-64-1 acetone

WEL Short-term value: 3620 mg/m³, 1500 ppmLong-term value: 1210 mg/m³, 500 ppm

141-78-6 ethyl acetate

WEL Short-term value: 400 ppm

Long-term value: 200 ppm

· Additional information: The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Personal protective equipment

· General protective and hygienic measures

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

· Respiratory protection:

Not necessary if room is well-ventilated.

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Use suitable respiratory protective device when high concentrations are present.

Short term filter device:

Filter A/P2.

· **Protection of hands:** Solvent resistant gloves

· **Material of gloves** Butyl rubber, BR

· **Penetration time of glove material**

0,1 - 0,2 mm

Penetration time: 5 min.

· **Eye protection:** Safety glasses

· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Fluid

Colour: Silver grey

· Odour: Characteristic

· Odour threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: 55 °C

· Flash point: 12 °C

· Flammability (solid, gaseous) Not applicable.

· Ignition temperature: 255 °C

· Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

Lower: 1.3 Vol %

Upper: 15.0 Vol %

· Vapour pressure at 20 °C: 59 hPa

· Density at 20 °C: 1.7 g/cm³

· Relative density Not determined.

· Vapour density Not determined.

· Evaporation rate Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

dynamic: Not determined.

kinematic: Not determined.

· 9.2 Other information No further relevant information available.

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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** 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 toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:**

Ethanol	LD-50 oral	10470 mg/kg rat	OECD 401
	LC-50 inhalativ	117 mg/l rat	OECD 402
Aceton	LD-50 oral	5800 mg/kg rat	
	LD-50 subcutan	1250 mg/kg rab	
- **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.
- **CMR effects (carcinogenity, 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 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.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Type of test**

Effective concentration	Method	Assessment
Acetone:	LC50/96 h:	6 500 mg/l rainbow trout
	LC50/48 h:	12 600 mg/l Daphnia magna
- **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 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or 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.

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SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Contact waste processors for recycling information.

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

06 04 05*	wastes containing other heavy metals
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· Uncleaned packaging:

· Recommendation:

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR, IMDG, IATA

UN1263

· 14.2 UN proper shipping name

· ADR

1263 PAINT (vapour pressure at 50 °C not more than 110 kPa)

· IMDG

PAINT

· IATA

Paint

· 14.3 Transport hazard class(es)

· ADR



· Class

3 (F1) Flammable liquids.

· Label

3

· IMDG

· Class

3 Flammable liquids.

· IATA

· Class

3.2

· 14.4 Packing group

· ADR

II

· 14.5 Environmental hazards:

· Marine pollutant:

No

· 14.6 Special precautions for user

Warning: Flammable liquids.

· Danger code (Kemler):

33

· EMS Number:

F-E,S-E

· 14.7 Transport in bulk according to Annex II of

Marpol and the IBC Code

Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ)

5L

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· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN 1263 PAINT (VAPOUR PRESSURE AT 50 °C NOT MORE THAN 110 KPA), 3, II

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
- **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
- **National regulations**
- **Technical instructions (air):**

Class	Share in %
NK	25-50

- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly 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**
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
- **Department issuing MSDS:** F & E
- **Contact:** Dr. U. Krichbaum
- **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)
ICAO: International Civil Aviation Organisation
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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
- *** Data compared to the previous version altered.**