KORAS Electro-Polishing Liquid: Silver

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

· **1.1 Product identifier**

· **Trade name: EPL2 (Silver Electrolyte)**
· **1.2 Relevant identified uses of the substance or mixture and uses advised against:** No further relevant information available.
· **Application of the substance / the preparation:** Metal working auxiliary
· **Uses advised against** -

· **1.3 Details of the supplier of the safety data sheet**
· **Supplier/Manufacturer:**
Romanoff International Supply Corp
9 Deforest Street
Amityville, New York, 11701 USA
Phone: +1 631-842-2400
websales@romanoff.com

1.4. Emergency telephone number : CHEMTEL.

CHEMTEL ACCOUNT: #MIS4594445

USA, CANADA, PUERTO RICO & US VIRGIN ISLANDS: 1-800-255-3924
AUSTRALIA: 1-300-954-583 BRAZIL: 0-800-591-6042
CHINA: 400-120-0751 **INDIA:** 000-800-100-4086
MEXICO: 800-099-0731 **ALL OTHER COUNTRIES:** 1-813-248-0585

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**


GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.
· **Information concerning particular hazards for human and environment:**
Based on the classification criteria for mixtures according to Regulation (EC) No. 1272/2008, the mixture is subject to labelling.
· **Classification system:**
The classification complies with current legislation, but is supplemented with information from technical literature and company information.

· **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**


GHS05

· **Signal word** Danger

(Contd. on page 2)

(Contd. of page 1)

· **Hazard-determining components of labelling:**
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine
Isotridecanol, ethoxylated (> 5-15 mol e.o.)
· **Hazard statements**
H318 Causes serious eye damage.
· **Precautionary statements**
P280 Wear protective gloves / eye protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
· **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:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 121617-08-1 REACH-no: 01-2119971970-28-xxxx	Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine Eye Dam. 1, H318; Aquatic Chronic 3, H412	5-10%
CAS: 69011-36-5	Isotridecanol, ethoxylated (> 5-15 mol e.o.) Eye Dam. 1, H318; Acute Tox. 4, H302	5-10%

· **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:**
Be sure to show this safety data sheet, the packaging or the instructions for use to the physician.
If symptoms persist or in case of doubt, seek medical advice.
· **After inhalation:** Supply fresh air; consult a doctor in case of pain.
· **After skin contact:**
Wash with water and soap.
If skin irritation continues, consult a doctor.
· **After eye contact:**
Protect unharmed eye.
Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult an eye specialist immediately.
· **After swallowing:**
Rinse mouth with water.
Spit liquid out again.
Do not induce vomiting.
If symptoms persist, consult doctor.
· **4.2 Most important symptoms and effects, both acute and delayed** Serious damage to eyes
· **4.3 Indication of any immediate medical attention and special treatment needed** Symptomatic treatment

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.

(Contd. on page 3)

(Contd. of page 2)

· **For safety reasons unsuitable extinguishing agents:** No data available
· **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
· **5.3 Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.
· **Additional information:**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Avoid contact with 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.
Do not allow to penetrate the ground/soil.
In case of seepage into the ground inform responsible authorities.
· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Make sure to recycle or dispose of in suitable receptacles.
· **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/exhaustion at the workplace.
Avoid contact with eyes and skin.
· **Information about protection against explosions and fires:** Observe the general rules of industrial fire protection.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Store container tightly sealed at a cool and dry place with sufficient ventilation.
· **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from feed.
Refer to national regulations for storing hazardous chemicals.
· **Further information about storage conditions:** Protect from heat.
· **Storage class:** 10-13 other combustible and non-combustible substances
· **7.3 Specific end use(s)** No further relevant information available

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

· **8.1 Control parameters**
· **Components 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.

(Contd. on page 4)

(Contd. of page 3)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2 Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures should be adhered to when handling chemicals.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Avoid contact with eyes and skin.
Provide eye bath.
After skin contact, cleanse skin thoroughly.
· **Breathing equipment:**
In case of unintentional release of substance, exceeding the occupational exposure limit value:

In case of brief exposure or low pollution use a respiratory filter device. In case of intensive or longer exposure use a respiratory protective device that is independent of circulating air.

· **Protection of hands:**
Chemical resistant gloves (EN 374)
The glove material has to be impermeable and resistant to the product/substance/preparation.
Due to missing tests no recommendation to the glove material can be given for the product / preparation / chemical mixture.
Selection of the glove material in consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves:**
The selection of suitable gloves depends upon the material, and also upon the quality of the gloves. The degree of protection will vary 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 penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye 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:**	
· **Appearance:**	
Form:	Viscous
Colour:	Bluish Clear
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined
· **pH-value at 20 °C:**	2.0-2.2
· **Change in condition:**	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
· **Flash point:**	Not determined
· **Flammability (solid, gaseous):**	Not applicable
· **Ignition temperature:**	Not determined
· **Decomposition temperature:**	Not determined
· **Self ingnition temperature:**	Product is not self-igniting.
· **Danger of explosion:**	Product does not present an explosion hazard.

(Contd. on page 5)

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

Printing date: 05.07.2016 Version: 1.00 Revision: 05.07.2016

Trade name: EPL2 (Silver Electrolyte)

(Contd. of page 4)

· **Explosion limits:**	
Lower:	Not applicable
Upper:	Not applicable
· **Oxidizing properties:**	Not determined
· **Vapour pressure:**	Not determined
· **Density:**	~1.050 g/cm³
· **Relative density:**	Not determined
· **Vapour density:**	Not determined
· **Evaporation rate:**	Not determined
· **Solubility in / Miscibility with**	
Water:	Miscible
· **Partition coefficient (n-octanol/water):**	Not determined
· **Viscosity:**	
dynamic:	Not determined
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:** No decomposition if used and stored 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 hazardous decomposition products if instructions for storage and handling are followed

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 that are relevant for classification:**
ATE oral: >5000 mg/kg

69011-36-5 Isotridecanol, ethoxylated (> 5-15 mol e.o.)

Oral LD_{50} 500-2000 mg/kg (rat)

Dermal LD_{50} > 2000 mg/kg (rat)
· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation**
Causes serious eye damage.
· **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** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.

(Contd. on page 6)

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

Printing date: 05.07.2016 Version: 1.00 Revision: 05.07.2016

Trade name: EPL2 (Silver Electrolyte)

(Contd. of page 5)

· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:**
There are no quantitative data available for the product itself.

121617-08-1 Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., compds. with triethanolamine

LC_{50}/96h (dynamic)	>1-10 mg/l (Brachydanio rerio) (OECD 203)
EC_{10}/18h	50 mg/l (Pseudomonas putida) (Bringmann & Kühn)
EC_{50}/48h (static)	>10-100 mg/l (Daphnia magna) (OECD 202)
EC_{50}/72h (static)	>10-100 mg/l (Desmodesmus subspicatus) (OECD 201)
NOEC/21d	2.8 mg/l (Daphnia magna) (OECD 202)

· **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 to water
According to appendix 4 of VwVwS dated 17.05.1999 (German regulation)
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water even if small quantities leak into the ground.
· **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:**
Must be recycled or disposed of according to the regulations. Waste has to be classified according to the European Waste Catalogue based on the identification of the waste generating source.
Disposal according to instructions of local authorities
Must not be disposed of 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 02 00	wastes from MFSU of other coatings (including ceramic materials)
08 02 99	wastes not otherwise specified

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

SECTION 14: Transport information

· **14.1 UN-Number**	
· **ADR, ADN, IMDG, IATA**	Void
· **14.2 UN proper shipping name**	
· **ADR, ADN, IMDG, IATA**	Void

(Contd. on page 7)

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

Printing date: 05.07.2016 Version: 1.00 Revision: 05.07.2016

Trade name: EPL2 (Silver Electrolyte)

(Contd. of page 6)

· **14.3 Transport hazard class(es)**	
· **ADR, ADN, IMDG, IATA** · **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 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable
· **Transport/Additional information:**	Not dangerous according to the above regulations
· **UN "Model Regulation":**	Void

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.

· **National regulations**

· **Water hazard 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.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.
· **Classification according to Regulation (EC) No 1272/2008** Eye Dam. 1 based on test data

· **Department issuing SDS:**
KFT Chemieservice GmbH
Im Leuschnerpark. 3 64347 Griesheim
Postfach 1451 64345 Griesheim
Germany

Phone: +49 6155 8981 400 Fax: +49 6155 8981 500
Safety Data Sheet Service: +49 6155 8981 522
· **Contact:** Dr. Sonja Fischer
· **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)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
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

(Contd. on page 8)

(Contd. of page 7)

PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
SVHC: Substances of Very High Concern
Acute Tox. 4: Acute toxicity – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· **Sources:** MSDSs of the suppliers