Safety Data Sheet

According to Regulation (EC) No 1907/2006

Version 1 created on 4.12.2011
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SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name: Skinial-Ex4
Synonyms: Lactic acid solution, 2-hydroxypropionic acid solution

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

Identified uses: Cosmetics
The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet

Company: USP Innovation GmbH
Feschnigstraße 230
9020 Klagenfurt
Austria

Telephone: +43 (0) 463 / 41 89 62
E-Mail: office@calecosmetics.at

1.4 Emergency telephone number

Emergency telephone number: +43 (0) 463 / 41 89 62 (office hours)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Skin irritation (category 2)
Serious eye damage (category 1)

Classification according to Directives 67/548/EEC and 1999/45/EC

Causes skin irritation.
Causes serious eye damage.

2.2 Label elements

Label elements according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)

Hazard pictogram(s):

Signal word(s): Danger

Hazard statement(s):

H315	Causes skin irritation.
H318	Causes serious eye damage.

Precautionary statement(s):

P280	Wear protective gloves and eye protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and 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.
P310	Immediately call a POISON CENTER or doctor/physician.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.

Supplemental Hazard information (EU):
None

Label elements according to Directives 67/548/EEC and 1999/45/EC

Hazard symbol(s):

Risk phrase(s):

R38	Irritating to skin.
R41	Risk of serious damage to eyes.

Safety advice(s):

S24	Avoid contact with skin.

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S39	Wear eye protection

2.3 Other Hazards
None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Component	IUPAC	CAS-No.	EC-No.	Classification	Concentration
Water	Dihydrogen-monoxid, Oxidan	7732-18-5	231-791-2	-	60 w%
Lactic acid	2-Hydroxy-propionic acid	50-21-5	200-018-0	Skin Irrit. 2 Eye Dam. 1 H315, H318	40 w%
				Irritating Xi R38 – R41	

Full text of R- and H-phrases: see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General information
Consult a doctor. Show this safety data sheet to the attending physician.

Inhalation
If inhaled remove victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor.

Skin contact
Remove contaminated and shoes immediately. Wash skin with plenty of soap and water. Consult a doctor.

Eye contact
After contact with the eyes, rinses with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Ingestion
Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed
Causes severe skin burns and eye damage.

4.3 Identification of any immediate medical attention and special treatment needed
No data available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Water mist, foam, alcohol resistant foam, dry extinguishing powder, extinguishing powder, ABC-powder, carbon dioxide

Unsuitable extinguishing media
Full water jet, strong water jet

5.2 Special hazards arising from the substance or mixture
May produce toxic fumes of carbon monoxide if burning.

5.3 Advice for fire fighters
In case of fire: Wear self-contained breathing apparatus if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protection equipment. Do not breathe vapours. Provide adequate ventilation. Remove persons to safety.

6.2 Environmental precautions
Prevent further pouring out. No special environmental measures are necessary.

6.3 Methods and material for containment and cleaning up

Neutralise with sodium carbonate or sodium hydrogen carbonate and flush with plenty of water.
Never neutralize with strong bases (danger of exothermic reaction).
Take up with inert absorbent materials (sand, diatomaceous earth, silica gel, acid binder, universal binder, saw dust, etc.) and fill in suitable closed containers for disposal. Flush remainders with plenty of water.

6.4 Reference to other sections

Disposal: see SECTION 13

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

When using do not eat, drink, smoke, sniff. When leaving the work area remove protective clothing.
No special fire protection measures are necessary.
Avoid formation of aerosols.
Avoid temperatures above 200°C.

7.2 Conditions for safe storage, including any incompatibilities

Store closed containers in a cool and dry place.

Recommended storage temperature: 2–8°C

Keep away from: strong bases

7.3 Specific end use(s)

See recommendations in previous sections 7.1 and 7.2.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Components with occupational exposure limit values
The product does not contain components with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls
Obey the usual precautions for handling with chemicals.
Wash hands before breaks and after work.

Personal protective equipment

Eye-/face protection
Wear safety glasses. For eye protection only use equipment that is tested and approved according to official standards like NIOSH (USA) or EN 166 (EU).
Do not wear contact lenses.

Skin protection
Suitable gloves type: Disposable gloves
Suitable material: NR (natural rubber, natural latex), NBR (nitrile rubber), CR (polychloroprene, chloroprene rubber), butyl caoutchouc (butyl rubber), PVA (Polyvinyl alcohol). Breakthrough time (maximum wear duration): nominal each >480 min.
Check leak tightness/impermeability prior to use.
Use a suitable method for removing the gloves (without touching the outer glove surface) to prevent skin contact with this product.
Dispose contaminated gloves after use according to legal requirements and good laboratory praxis.
Protective gloves must conform to specifications of regulation 89/686/EWG and the resulting norm EN 374.

Body protection
Body protection: not necessary.

Respiratory protection
Usually no personal respirative protection necessary.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	colourless liquid
Odour:	none
pH:	1,3 (20°C)
Melting point/freezing point:	<53°C

Initial boiling point and boiling range:	>100°C, <130°C
Flash point:	110°C closed pan
Evaporation rate:	no data available
Flammability (solid, gas):	no data available
Upper/lower flammability or explosive limits:	no data available
Vapour pressure:	no data available
Relative density (25°C):	>1,0 g/cm^3, <1,2 g/cm^3
Water solubility:	miscible with water in all ratios
Partition coefficient: n-octanol/water:	log Pow <0
Auto-ignition temperature:	no data available
Decomposition temperature_	no data available
Viscosity:	thin fluid
Explosive properties:	not explosive
Oxidising properties:	not oxidising

9.2 Other information
No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Contact with strong bases can cause exothermic reaction.

10.2 Chemical stability
Product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions
Contact with strong bases can cause exothermic reaction.

10.4 Conditions to avoid
Product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.5 Incompatible materials
Strong oxidising agents, strong bases

10.6 Hazardous decomposition products
No hazardous decomposition products are produced as a result of use, storage, spill or heating.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Lactic acid: acute toxicity

Oral	LD50	rat	>2000 mg/kg
Respiratory	LC50 (4h)	rat	>7,94 mg/L
Dermal	LD50 (24h)	rat	>2000 mg/kg

Lactic acid: repeated dose toxicity

Oral	no data available		
Dermal	LOAEL	rat	886 mg/kg/day

Lactic acid: skin corrosion/irritation
Lactic acid (80%ig) is skin corrosive (albino-rabbit).

Lactic acid: serious eye damage/irritation
Lactic acid (88%ig) causes serious damage to the cornea (chicken eyes from slaughterhouse).

Lactic acid: respiratory or skin sensitisation
Not skin sensitising (guinea pig).

Lactic acid: germ cell mutagenicity
Not germ cell mutagen.

Lactic acid: carcinogenicity
Not carcinogen.

Lactic acid: reproductive toxicity
No data available.

Lactic acid: STOT-single exposure

No data available.

Lactic acid: STOT-repeated exposure
No data available.

Aspiration hazard
No data available.

Potential health damages

Inhalation	May cause health damages if inhaled. The product causes tissue damages of mucous membranes and upper respiratory tracts.
Ingestion	Harmful if swallowed. Causes burns.
Skin	Causes severe skin burns. May cause health damages when absorbed through the skin.
Eyes	Causes severe eye damage.

Symptoms after exposition
According to our knowledge the chemical, physical and toxicological properties have not been investigated comprehensively.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Lactic acid: Aquatic Toxicity

Toxicity to microorganisms
Not toxic towards sewage bacteria at 100 mg/L.

Short-term toxicity to aquatic invertebrates

EC50 (48h)	Daphnia magna (daphnia magna)	240 mg/l
EC50 (48h)	Daphnia magna (daphnia magna)	240 mg/l
EC100 (48h)	Daphnia magna (daphnia magna)	320 mg/l

Toxicity to aquatic algae and cyanobacteria

NOEC (48h)	Selenastrum capricornutum	1900 mg/l
EC50 (48h)	Selenastrum capricornutum	3500 mg/l

Short-term toxicity to fish

NOEC (96h)	Salmo gairdneri (rainbow trout)	56 mg/L
LC50 (96h)	Salmo gairdneri (rainbow trout)	130 mg/L
LC50 (96h)	Brachydanio rerio (zebrafish)	320 mg/L
NOEC (96h)	Lepomis macrochirus (bluegill sunfish)	56 mg/L
LC50 (96h)	Lepomis macrochirus (bluegill sunfish)	130 mg/L

Lactic acid: terrestrial toxicity

Toxicity to soil macroorganisms except arthropods
No data available.

Toxicity to terrestrial arthropods
No data available.

Toxicity to terrestrial plants
No data available.

Toxicity to soil microorganisms
No data available.

Toxicity to birds

NOEC (oral, 48h)	Colinus virginianus (bobwhite)	810 mg/kg
LD50 (oral, 48h)	Colinus virginianus (bobwhite)	>2250 mg/kg
NOEC (oral, 48h)	Anas platyrhynchos (mallard)	> 5620 mg/kg
LD50 (oral, 48h)	Anas platyrhynchos (mallard)	>5620 mg/kg

Toxicity to other above-ground organisms

LC50 (dermal, 48h)	Apis mellifera (honey bee)	>100 µg/bee

Other information
Lactic acid occurs naturally in humans and animals.

12.2 Persistence and degradability

Lactic acid: biodegradation in water
BOD5 = 0,45 mg O_2/mg – indicates 50% after 5 days
BOD20 = 0,60 mg O_2/mg – indicates 67% after 20 days

Lactic acid: biodegradation in soil
No data available.

12.3 Bioaccumulative potential

Because of the unlimited miscibility of lactic acid in water bioaccumulation is not expected.

12.4 Mobility in soil
Lactic acid: K_{OC} (soil, sewage sludge) <20,9 (pH7)
Lactic acid: K_{OC} (soil, sewage sludge) <1,32 (pH2)

12.5 Results of PBT and vPvB assessment
No data available.

12.6 Other adverse effects
No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product
Deliver residual amounts and unusable solutions to an accredited waste management company. This product must be dissolved in or mixed with a flammable solvent and be burned in an incineration plant for chemicals (with afterburner and exhaust air scrubber).

Contaminated packaging
Dispose like unused product.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID: -	IMDG: -	IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods	IMDG: Not dangerous goods	IATA: Not dangerous goods

14.3 Transport hazard Class(es)

ADR/RID: -	IMDG: -	IATA: -

14.4 Packing group

ADR/RID: -	IMDG: -	IATA: -

14.5 Environmental hazards

ADR/RID: no	IMDG: Marine Pollutant: no	IATA: no

14.6 Special precautions for user
No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Product is distributed in appropriate packaging only.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No specific regulations/legislation for this product.

15.2 Chemical safety assessment
No data available.

SECTION 16: OTHER INFORMATION

Full text of R phrases and hazard statements from section 3

H315 Causes skin irritation.
H318 Causes serious eye damage.
R38 Irritating to skin.
R41 Risk of serious damage to eyes.

Key literature references and sources for data
Regulation (EC) 1907/2006 of 18.12.2006
Regulation (EC) 453/2010 of 20.5.2010
ECHA Guidance on the compilation of safety data sheets, Version 1.0, September 2011
ECHA Dossier Lactic Acid of 11.10.2011

Evaluation method used for classification
The classification according to Regulation (EC) 1272/2008 and Directive 1999/45/EC was done using the summation method.

Revisions
4.12.2011: first compilation

Other information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. The supplier shall not be held liable for any damage resulting from handling or from contact with the above product.