

TECHNICAL DATASHEET

ZINC LACTATE NATURAL

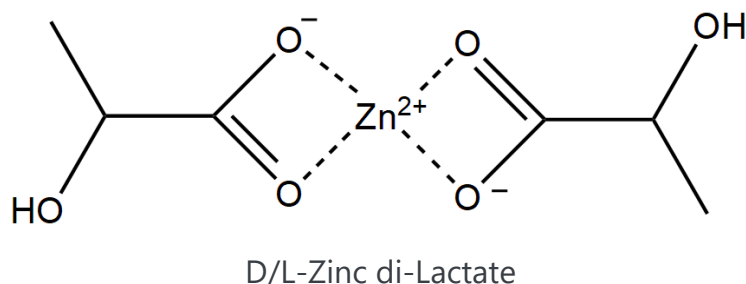
1.1 GENERAL INFORMATION

Trade name:	Zinc Lactate natural
Item No.:	01-019-xxxx
Supplier:	LEROMA GmbH
Chemical name:	Zinc Lactate dihydrate
Other names:	Zinc bis(2-hydroxypropanoate), Zinc di-Lactate
INCI name:	Zinc Lactate
CAS No.:	16039-53-5
EINECS/ EC No.:	240-178-9
IECIC:	Zinc Lactate

1.2 PRODUCT COMPOSITION

INCI name	CAS No.
Zinc Lactate	16039-53-5

1.3 CHEMICAL STRUCTURE



1.4 PRODUCT SHORT DESCRIPTION

Zinc Lactate natural is the zinc salt of lactic acid and is used in oral care products and deodorants to fight malodours. It can also be used as multifunctional ingredient for skin care and cleansing products.

The versatility of zinc lactate is based on the collection of properties provided by its individual components. Zinc is involved in skin homeostasis, anti-oxidative processes and recovery from UV damage. The alpha hydroxy acid Lactic acid is a key component of the natural moisturization factor and has excellent humectant properties.

The benefits of Zinc Lactate natural are completed by the strong antimicrobial efficacy against a broad spectrum of microorganisms. It offers a multitude of benefits in one simple natural COSMOS approved cost-efficient substance.

1.5 APPLICATION

Recommended concentration: 0.3 – 2.0 %

Conditions: water soluble

Hints: Zinc Lactate natural can be added to the water phase of the formulation. The pH value should not exceed 7, otherwise precipitation might occur.

Zinc is firmly bound by phytates and can form cloudy precipitates in combination. Selection of other chelators like CHA for application with Zinc Lactate natural might be more suitable.

Commonly used surfactants in cosmetic products, such as sulfate- or sugar-based surfactants, are excellently suited in combination with Cosphaderm® Zinc Lactate natural. Glutamate-based surfactants can cause precipitation.

Like other multivalent cations, zinc can affect the viscosity-forming properties of carbomers. As thickener in combination with Zinc Lactate we recommend to use Xanthan Gums.

For a complete antimicrobial spectrum, we recommend to combine Zinc Lactate natural with other Multifunctionals.

2.1 SPECIFIED DATA ANALYSED PER BATCH

Appearance:	white to off-white powder	visual
Zinc content	22.0 – 24.5 %	TM D-018
Loss on drying	10.5 – 13.5 %	TM A-009
pH value	5.0 – 8.0	TM A-002

2.2 SPECIFIED DATA ANALYSED PERIODICALLY

Chloride	max. 200 mg/kg	TM D-015
Sulfate	max. 500 mg/kg	TM D-016
Iron	max. 50 mg/kg	TM D-017
Total aerobic microbial count	max. 1000 cfu/g	TM D-003
Yeasts and moulds	max. 100 cfu/g	TM D-003
E. coli	negative /10 g	TM D-003

3.1 PHYSICAL AND CHEMICAL PROPERTIES

Molecular weight:	279.6 g/mol
Appearance:	white to off-white powder

Odour:	characteristic
Boiling point:	> 400 °C
Flash point:	-
Solubility:	water soluble

3.2 PACKING AND STORAGE CONDITIONS

Packing sizes:

Storage conditions: Store in the air-tight original sealed containers protected from direct sunlight, moisture and heat at ambient temperature (15 – 25 °C). Brief deviation from the storage temperature, e.g., during transport does not impair product quality or shelf life.

Shelf life: unopened under proper conditions 36 months

4.1 REGULATORY COMPLIANCE

Zinc lactate (CAS: 16039-53-5) is included/listed in the following international inventories:

EINECS (Europe); IECSC (China); NZIoC (New Zealand); TCSI (Taiwan); ENCS (Japan)

4.2 REGULATORY STATUS FOR COSMETIC APPLICATION

Product complies with Regulation (EU) No. 1223/2009 in all the defined requirements.

Water-soluble Zinc salts are listed in Annex III of the Cosmetic Regulation (EU) No. 1223/2009: max. concentration of Zinc Lactate natural in ready for use preparation: 4 %.

4.3 ADDITIVES

Product contains only the specified ingredients. No other substances like preservatives, antioxidants, fragrances, colourants or other are added.

4.4 IMPURITIES

	Not expected*	Present#	ppm
BSE/TSE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Dioxin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Formaldehyde	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Gluten	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Lactose	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Pesticides	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Phthalates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Residual solvents	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Heavy metals	ppm
total	≤ 10
Arsenic (As)	≤ 0.1
Lead (Pb)	≤ 0.1
Mercury (Hg)	≤0.01
Cadmium (Cd)	≤0.1

4.5 ALLERGENS

Product does not contain any of the 26 allergenic flavours or fragrances listed in Regulation (EC) No. 1223/2009 Annex III.

4.6 VOC

Product does not contain any volatile organic compounds.

4.7 CMR

Product is not rated as CMR (category 1A, 1B and 2) and does not contain any ingredient rated as CMR according to Regulation (EC) No. 1223/2009 in association with Regulation (EC) No. 1272/2008/EC.

4.8 SVHC

Product is neither listed as SVHC substances nor contains any material which is listed as SVHC substance.

4.9 NANOMATERIAL

Product is not embraced by article 16 Regulation (EC) No. 1223/2009.

4.10 ANIMAL TESTING

has not conducted any animal testing for cosmetic purpose since March 11th 2009.

4.11 IRRADIATION

Product has not been irradiated in any step of the entire production process.

4.12 ORIGIN

Substances (INCI name)	Synthetic	Vegetal	Biotechnology
Zinc lactate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Name of the plant:	Microorganism used:
		Plant part used:	<i>Bacillus sp.</i>
		Origin:	

4.13 GMO

The product is not subject to labelling according to Regulations (EC) No. 1829/2003 and 1830/2003.

4.14 CERTIFICATIONS & LABELS

COSMOS Approval

NaTrue Approval

4.15 ISO 16128

Natural Index, ISO 16128-2	Natural Origin Index, ISO 16128-2
0	1

The values have been assessed to the best of knowledge according to the ISO 16128-2.

OTHER INFORMATION

This information and our technical application advice regarding use and handling are given to the best of our knowledge, but they are for information purposes only. bears no responsibility
for deviated use or handling of the products. Customers or manufacturers are not released from their responsibility to perform own testing particularly with regard to the qualification of our products for intended processes and purposes. The sale of our products occurs according to our current general sales terms and delivery conditions.

* not expected to be present due to raw materials, production process and used equipment. Not regularly analysed.