Safety Data Sheet

According to Reg. (CE) 1907/2006 modified by Reg. (UE) 2020/878

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

1.1. Product identifier

Code: **---**
Product name **ECODECALK – ECODECALK Mini**

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

Intended use: Descaler for coffee machine, domestic use
Use not recommended: Any use not specified in this section or in section 7.3

1.3. Details of the supplier of the safety data sheet

Name **De'Longhi Appliances S.r.l.**
Address **via Lodovico Seitz, 47**
City and Country **31100 Treviso (TV)**
ITALY

tel. +39 (0)422 4131 (Switchboard – office hours Mo-Fri 08:00 – 17:00)

fax +39 (0)422 413736

Toll-free number 800 854040 (office hours Mo-Fri 08:00-18:30 / Sa 08:00-12:00)

e-mail of person responsible of data sheet **http://www.delonghi.com**
msds.helpdesk.delonghi@delonghigroup.com

Product distributed by **De'Longhi Appliances S.r.l.**
tel. +39 (0)422 4131 (Switchboard – office hours Mo-Fri 08:00 – 17:00)
fax +39 (0)422 413736
Toll-free number 800 854040 (office hours Mo-Fri 08:00-18:30 / Sa 08:00-12:00)
http://www.delonghi.com
msds.helpdesk.delonghi@delonghigroup.com

1.4. Emergency telephone number

For urgent inquiries refer to

Regional Medicines and Poisons Information Centre NI	Belfast	844 892 0111	nirdic.nirdic@belfasttrust.hscni.net
National Poisons Information Service (Birmingham Unit)	Birmingham	844 892 0111	mail@npis.org
National Poisons Information Service (Edinburgh Unit)	Edinburgh	844 892 0111	spib@luht.scot.nhs.uk
National Poisons Information Service (Newcastle Unit)	Newcastle Upon Tyne		newcastlenpis@nuth.nhs.uk
National Poisons Information Service (Cardiff Unit)	Penarth	844 892 0111	poisons.information@cardiffandvale.wales.nhs.uk

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements. The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Skin Corr. 1C	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
	EUH071	Corrosive to the respiratory tract

The full text of the hazard statements (H) can be found in section 16 of the sheet.

2.2. Label elements.

Hazard pictograms : GHS05

Signal words: Danger.

Hazard statements:

H314 Causes severe skin burns and eye damage.
EUH071 Corrosive to the respiratory tract.

Precautionary statements:

P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.
P264	Wash hands thoroughly after handling.
P260	Do not breathe vapours.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Shower.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents and container in accordance with local regulations.
Contains:	lactic acid.

Ingredients: Water, lactic acid, sodium lactate, calcium lactate, magnesium lactate.

Safety data sheet available on request for professional workers. The meaning of H phrases is explained at section 16.

2.3. Other hazards.

Based on available data, the product does not contain PBT or vPvB substances in percentages higher than 0.1%.
Mixture contains no substances listed for endocrine disrupting properties greater than 0.1%

SECTION 3. Composition/information on ingredients.

3.2. Mixtures.

Contains:

Substance.	**Conc. %.**	**Classification 1272/2008 (CLP).**
LACTIC ACID L-(+)-lactic acid CAS. 79-33-4 CE. 201-196-2 INDEX 607-743-00-5 REACh No 01-2119474164-39	30 ≤ C < 50	Skin Corr. 1C, H314 ; Eye Dam. 1, H318 ; EUH071

Note: Upper value of the range excluded.
The meaning of H phrases is explained at section 16.

SECTION 4. First aid measures.

Informazione generale: consultare un medico. Mostrare questa scheda di sicurezza al medico curante.

4.1. Description of first aid measures.

Not specifically necessary. In any case, compliance with the rules of good industrial hygiene is recommended.
EYES: wash immediately and abundantly with water for at least 15 min. Consult a physician.
SKIN: wash with plenty of soap and water. Take off contaminated clothing. If irritation persists, consult your doctor. Wash the contaminated garments before reusing them.
INHALATION: take the person to the open air. If breathing is difficult, consult your doctor.
INGESTION: consult your doctor. Induce vomiting only on medical advice. Do not administer anything by mouth if the subject is unconscious and if not authorized by the doctor

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects due to the substances contained, see section 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Follow medical information

SECTION 5. Firefighting measures

Nothing significant to comment.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT None

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Thermal combustion leads to the development of toxic and irritating vapors including carbon monoxide (CO), carbon dioxide (CO_2) and nitrogen oxides (NO_x). Avoid breathing fumes or vapours. Exposure to combustion and decomposition products can cause damage to health.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

6.1.1 For those who do not intervene directly:
Move away and wait for the emergency staff to intervene to secure the area where the release took place.
6.1.2 For those who intervene directly:
Wear suitable protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing.
In case of vapors or mists dispersed in the air, adopt respiratory protection. These indications are valid both for the workers and for emergency interventions.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material.
Provide sufficient ventilation of the place affected by the leak. Check for any incompatibilities for the container material in section 7. The disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Avoid contact with eyes and skin. Do not inhale the vapors.
Handle the product after consulting all the other sections of this safety data sheet. Avoid the dispersion of the product in the environment. Do not eat, drink or smoke during use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities.

Keep only in the original container. Keep the containers closed, in a well-ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, checking section 10.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters.

Lactic acid
DNEL: Not avaliable.

8.2. Exposure controls.

Since the use of appropriate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace by means of effective local exhaust ventilation.
When selecting personal protective equipment, seek advice from your chemical supplier if necessary.
Personal protective equipment should bear the CE marking that certifies that it complies with applicable standards.
Provide an emergency shower visocular tray.
HAND PROTECTION
Protect hands with category III (ref. standard EN 374) work gloves such as PVC, neoprene, nitrile or equivalent.
For the final choice of glove material, the following must be considered: compatibility, degradation, breakage time and permeation.
In the case of preparations, the resistance of work gloves to chemical agents must be verified before use as it cannot be predicted. The wear time of gloves depends on the duration of use and the method of use.
SKIN PROTECTION
Wear category II long-sleeved work clothes and safety footwear for professional use (ref. Directive 89/686/EEC and standard EN ISO 20344). Wash with soap and water after removing protective clothing.
EYE PROTECTION
It is advisable to wear a hooded visor or protective visor combined with airtight goggles (ref. standard EN 166).
Provide an eye wash system and emergency shower.
RESPIRATORY PROTECTION
The product presents the danger of corrosiveness to the respiratory tract. For use use semi-mask with AXE filters.
If the threshold value (e.g. TLV-TWA) of the substance or of one or more of the substances present in the product is exceeded, it is advisable to wear a mask with type B filter whose class (1, 2 or 3) must be chosen in relation to the limit concentration of use. (ref. standard EN 14387).
The use of respiratory protection equipment is necessary if the technical measures adopted are not sufficient to limit the worker`s exposure to the threshold values taken into consideration. The protection offered by masks is in any case limited.
In case the substance under consideration is odourless or its odour threshold is higher than the relevant TLV-TWA and in case of emergency, wear an open-circuit self-contained compressed air breathing apparatus (ref. standard EN 137) or a supplied-air respirator (ref. standard EN 138). For the correct choice of respiratory protective device, refer to standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS.
Emissions from production processes, including those from ventilation equipment, should be controlled for compliance with environmental protection regulations.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

a)	Physical state:	Liquid
b)	Colour:	Colourless
c)	Odour:	Characteristic
d)	Melting point/freezing point (1013 hPA)	Not determined
e)	Boiling point or initial boiling point and boiling range (1013 hPA)	> 200 °C
f)	Flammability	Not available
g)	Lower and upper explosion limit	Not applicable (non-flammable liquid)
h)	Flash point	> 200 °C
i)	Auto-ignition temperature	Not determined
j)	Decomposition temperature	Not determined
k)	pH	2,5 approximately
l)	Kinematic viscosity	Not Available (Variable Buffered pH Mix)
m)	Solubility	Soluble in water
n)	Partition coefficient n-octanol/water (log value)	Not determined (mixture soluble in water only)
o)	Vapour pressure	Not available (water mixture, not containing substances more volatile than water)
p)	Density and/or relative density	~1,10 g/cm3
q)	Relative vapour density	Not determined
r)	Particle characteristics	Not applicable (liquid mixture)

9.2. Other information.

VOC (Directive 1999/13/EC) :	0
VOC (volatile carbon) :	0

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.
10.2. Chemical stability.
The product is stable in normal conditions of use and storage.
10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage
10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.
10.5. Incompatible materials.
Strong oxidant.
10.6. Hazardous decomposition products.
With thermal decomposition or in case of fire, gases and vapors potentially harmful to human health can be released. Carbon dioxide, Carbon monoxide.

SECTION 11. Toxicological information.

Nothing significant to be mentioned
11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008.
In the absence of experimental toxicological data on the product itself, any hazards of the product to health have been assessed on the basis of the properties of the substances contained, according to the criteria provided by the reference legislation for classification. Therefore, the concentration of any hazardous substances mentioned in section 3 should be taken into account when assessing the toxicological effects of exposure to the product.
The product causes serious eye damage and may cause corneal opacity, iris damage, irreversible eye staining.
Acute effects: skin contact causes irritation with erythema, edema, dryness and cracking.
Ingestion may cause health disorders, which include abdominal pain with burning, nausea and vomiting.

a) acute toxicity:
Based on calculation and data on raw materials, the mixture does not present this hazard.
Data referred to hazardous ingredients:
LACTIC ACID
LD50 (Oral): 4936 mg/Kg acute - rat (male), 3543 mg/Kg acute - rat (female).
LD50 (Dermal): > 2000 mg/Kg acute - rabbit.
b) Skin corrosion/irritation:
Based on calculation, pH and data on raw materials, the mixture presents this hazard (Skin corrosion)
c) Serious eye damage/irritation:
Based on calculation and data on raw materials, the mixture presents this hazard (Eye damage)
d) sensitization (skin or respiratory):
Based on calculation and data on raw materials, the mixture does not present this hazard
e) mutagenicity on germ cells:
Based on calculation and data on raw materials, the mixture does not present this hazard
f) carcinogenicity:

Based on calculation and data on raw materials, the mixture does not present this hazard
g) reproductive toxicity:
Based on calculation and data on raw materials, the mixture does not present this hazard
h) STOT — single exposure:
Based on calculation and data on raw materials, the mixture does not present this hazard
i) STOT — repeated exposure:
Based on calculation and data on raw materials, the mixture does not present this hazard
j) aspiration hazard:
Based on calculation and data on raw materials, the mixture presents this hazard (Corrosive to the respiratory tract)

11.2. Information about other hazards

11.2.1. Endocrine disrupting properties
The mixture contains no substances listed for endocrine disrupting properties above 0.1%.
11.2.2. More info
/

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

LACTIC ACID
LC50 (96h): 320 mg/l Brachydanio rerio (pesce)
LD 50 Daphnia Magna (48h): 240 mg/l.

12.2. Persistence and degradability.

Information not available.

12.3. Bioaccumulative potential.

Information not available.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Endocrine disrupting properties.

The mixture contains no substances listed for endocrine disrupting properties above 0.1%.

12.7. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Dispose of as unused product.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
The hazardousness of the waste that partially contains this product must be assessed on the basis of the laws in force.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number or ID number.

3265.

14.2. UN proper shipping name.

CORROSIVE LIQUID, ACIDIC, ORGANIC, , N.O.S. (LACTIC ACID) (L-(+)-lactic acid)

14.3. Transport hazard class(es).

8.

14.4. Packing group.

III.

14.5. Environmental hazards.

Not hazardous for the environment.

14.6. Special precautions for user.

ADR/RID: Limited quantity 5L.
IMDG: Limited quantity 5L.
IATA: Limited quantity 1L.

14.7. Maritime transport in bulk according to IMO instruments.

Information not applicable.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso category. None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.
Product. Point. 3

Substances in Candidate List (Art. 59 REACH). None.
Substances subject to authorization (Annex XIV REACH). None.
Substances subject to exportation reporting pursuant to (EC) Reg. 689/2008: None.
Substances subject to the Rotterdam Convention: None
Substances subject to the Stockholm Convention: None.
Healthcare controls: Workers exposed to this chemical agent dangerous to health must be subjected to health surveillance carried out in accordance with the provisions of art. 41 of Legislative Decree 81 of 9 April 2008 unless the risk to the safety and health of the worker has been assessed as irrelevant, in accordance with the provisions of art. 224 paragraph 2.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture. If available, on request can be produced safety assessment of single component.

SECTION 16. Other information.

Full text of H-Statements referred to under sections 2 and 3
Eye Dam. 1: Serious eye damage, Category 1
Skin Corr. 1C: Skin corrosion, Category 1C
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
EUH071: Corrosive to the respiratory tract.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labelling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as Reach Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.
- WGK: Aquatic Hazards Class (Germany).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EC) 286/2011 (II Atp. CLP)
5. Regulation (EC) 618/2012 (III Atp. CLP) of the European Parliament
6. Regulation (UE) 487/2013 of the European Parliament (IV Atp. CLP)
7. Regulation (UE) 944/2013 of the European Parliament (V Atp. CLP)
8 . Regulation (UE) 605/2014 of the European Parliament (VI Atp. CLP)
9. Regulation (CE) 830/2015 of the European Parliament (VI Atp. CLP) amending Regulation (EC) No 1907/2006 (REACH)
10. Regulation (EU) 2015/1221 of the European Parliament (VII ATP CLP)
11 Regulation (EU) 2016/918 of the European Parliament (VIII ATP CLP)
12 Regulation (EU) 2016/1179 of the European Parliament (IX ATP CLP)
13 Regulation (EU) 2017/776 of the European Parliament (X ATP CLP)
14 Regulation (EU) 2018/669 (XI ATP CLP)
15 Regulation (EU) 2018/1480 (XIII ATP CLP)
16 Regulation (EU) 2019/521 (XII ATP CLP)
17 Regulation (EU) 2020/878
18. The Merck Index. - 10th Edition
19. Handling Chemical Safety

20. Niosh - Registry of Toxic Effects of Chemical Substances
21. INRS - Fiche Toxicologique (toxicological sheet)
22. Patty - Industrial Hygiene and Toxicology
23. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
24. ECHA website
25. MSDS of single components.

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Modified parts: 1.2 ; 2.1 ; 3.2 ; 5.2 ; 9 ; 10.6 ; 11.2 ; 12.6 ; 14.2 ; 16

Annex to the Safety Data Sheet

Exposure scenario relative to hazardous component "Lactic Acid", taken from the relative safety data sheet.

The generic Exposure Scenario GES1 is covering following identified uses:

1) Use in agriculture, forestry and fishery
2) Use in mining
3) Use in mining without offshore industries
4) Industrial manufacturing
5) Manufacture of pulp, paper and paper products
6) Manufacture of bulk, large scale chemicals
7) Manufacture of fine chemicals
8) Manufacture of plastic products
9) Building and construction work
10) Health services
11) Formulation of preparations and / or repackaging
12) Manufacture of food products

Generic Exposure Scenario GES1: Production, transport and downstream use of lactic acid:
Lactic acid is a non-toxic substance that is a basic metabolic and energetic building block in practically all life-forms, from bacteria to primates. It is not labelled for environmental effects or ecotoxicity, and is also not labelled for any human effects, with the exception of skin and eye irritation (Lactic acid is classified for skin as GHS: Category 2, H315, and for eyes as GHS: Category 1, H318. Note that the skin and eye irritation potential of lactic acid is a pH effect - buffered lactic acid, even up to 70% aqueous solutions is not irritating.

As such, no risk assessment for the environment is required, and no environmental exposure assessment is necessary. For human health, lactic acid is not labelled for any 'dose-effect' endpoint, and thus no quantitative risk assessment is necessary or possible.

Lactic acid is labelled for skin and eye irritation. Under the current classification and labelling requirements for preparations, preparations containing less than 10% lactic acid do not have to be classified and labelled for skin irritation, and preparations containing less than 5% lactic acid do not have to be classified for eye irritation.

No end use products are made from the supplier with a lactic acid content of more than 5%, therefore no end use product has to be be classified based solely on the presence of lactic acid.

On the other hand, any product with a relevant lactic acid content, including aqueous solutions, which can have a lactic acid content of more than 5%, may have to be classified and labelled as an irritant.

In all production, storage and transport contexts and processes, regardless of use, where lactic acid is handled pure, diluted or in formulations with a content that is equal to or greater than 5% (for example, in case of potential exposure of workers to hazardous substances and preparations), the due Risk Management Measures are already prescribed and applied, and exclude any possibility of exposure to skin and eyes to the lactic acid. In all identified downstream uses where lactic acid, in pure or diluted form, or contained in formulations at an amount that is equal to or greater than 5%, is handled (for example, when receiving lactic acid after transportation, for storage, when adding lactic acid to production processes, when preparing, handling and storing dilutions or intermediate formulations with a lactic acid content of less than 5%), the risk management measures are already prescribed and applied and exclude any possibility for skin and eyes of being exposed to the lactic acid (for example, in case of potential exposure of workers to hazardous substances and preparations).

As such, the following Generic Exposure Scenario has been established for all identified uses of lactic acid:
- For the environment, no hazards are identified and therefore no exposure assessments are required;
- For human exposure, the only identified hazards are skin and eye irritation. Taking due risk management measures into account, no exposure to lactic acid or dilutions is possible. Therefore, exposure is equal to 0.

1. EXPOSURE SCENARIO

Number of the ES	GES1
Short Title of Exposure Scenario	Production, transport and downstream use of lactic acid (pure or in mixture of ≥ 5%)

List of use descriptors

Sectors of Use	SU1, SU2a, SU2b, SU3, SU4, SU6b, SU8, SU9, SU10, SU19, SU20, SU21, SU22
Product category (market sectors)	PC0, PC1, PC2, PC3, PC4, PC8, PC9a, PC9b, PC9c, PC12, PC13, PC14, PC15, PC17, PC19, PC20, PC21, PC24, PC25, PC28, PC29, PC31, PC32, PC34, PC35, PC36, PC37, PC38 , PC39
Process category	PROC0, PROC1, PROC2, PROC3, PROC4, PROC5, PROC6, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC14, PROC15, PROC16, PROC17, PROC18, PROC19, PROC20, PROC21, PROC24, PROC26
Environmental release category	ERC1, ERC2, ERC3, ERC4, ERC5, ERC6a, ERC6b, ERC6d, ERC7, ERC8a, ERC8b, ERC8d, ERC8e, ERC8f, ERC9a, ERC9b, ERC10b
Article category	AC0, AC1, AC2, AC13

2. CONDITIONS OF USE AFFECTING EXPOSURE

2.1 Contributing Scenario - Environment
Not applicable

2.2 Contributing Scenario – Worker & Consumer

Product characteristics	
Physical state	Liquid at standard temperatures and pressures; vapour tension < 1 Pa
Concentration of substance in preparation/mixture or article	Covers percentage substance in the product up to 100 % (unless stated differently)
Duration and frequency of use	Covers daily exposures up to 8 hours (unless stated differently)
Other given operational conditions affecting worker exposure	Assumes a good basic standard of occupational hygiene is implemented
Area of use	Indoor/Outdoor use
Technical conditions and measures to control dispersion from the source towards the worker	Avoid temperatures exceeding 200°C. Ensure adequate ventilation, especially in confined areas.

Contributing scenarios	**Risk Management Measures**
General measures (skin irritants) General measures (eye irritants)	Avoid direct skin contact with the product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimize exposures and to report any skin problems that may develop. Other skin protection measures such as impervious suits and face shields may be required during high dispersion activities which are likely to lead to substantial aerosol release e.g. spraying. When aerosol or mist is formed, use of a breathing apparatus is needed. Use suitable eye protection (safety glasses with side-shields, tested to EN 166).
General measures applicable to all activities	No other specific measures identified.

3. EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

Environment Exposure Estimation	L-(+)-Lactic acid is not classified as hazardous for environmental endpoints. A quantitative exposure assessment for the environment has not been conducted.
Health Exposure Estimation	L-(+)-Lactic acid is classified as a skin and eye irritant, which requires a qualitative risk characterization of any dermal or eye exposures according to REACH guidance Chapter E. A quantitative assessment of dermal and eye exposures has not been conducted.

4. GUIDANCE TO DOWNSTREAM USER FOR EVALUATING EMPLOYEE WHETHER HE WORKS INSIDE THE BOUNDARIES SET BY THE EXPOSURE SCENARIO

Control of Environment Exposure	Not applicable
Control of Worker Exposure	Available hazard data do not enable the derivation of a DNEL for dermal or eye irritant effects. Risk Management Measures are based on qualitative risk characterization. Available hazard data do not support the need for a DNEL to be established for other health effects. Users are advised to consider national Occupational Exposure Limits or other equivalesegrnt values. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.