

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Boerovin**

Revision date: 23.11.2023

Product code: 8901x

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Boerovin

REACH Registration Number: 01-2119474164-39-0004  
CAS No: 79-33-4  
EC No: 201-196-2  
UFI: 5KTM-NVMG-C62V-X2XM

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

Beverage treatment agent

**1.3. Details of the supplier of the safety data sheet**

Company name: Erbslöh Geisenheim GmbH  
Kundenservice  
Street: Erbslöhstr. 1  
Place: D-65366 Geisenheim  
Telephone: 06722/708-0      Telefax: 06722/6098  
e-mail: info@erbsloeh.com  
Contact person: Qualitätssicherung      Telephone: 06722/708-0  
e-mail: info@erbsloeh.com  
Internet: www.erbsloeh.com

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Skin Irrit. 2; H315  
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

Lactic acid

**Signal word:** Danger**Pictograms:****Hazard statements**

H315 Causes skin irritation.  
H318 Causes serious eye damage.

**Precautionary statements**

P264 Wash Hände thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
P302+P352 IF ON SKIN: Wash with plenty of Wasser und Seife.  
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.

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**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
79-33-4	Lactic acid			80 - < 85 %
	201-196-2		01-2119477464-39	
	Skin Irrit. 2, Eye Dam. 1; H315 H318			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
79-33-4	201-196-2	Lactic acid	80 - < 85 %
	inhalation: LC50 = 7,94 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 3543 mg/kg		

**SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink 1 glass of water.

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

No information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**5.2. Special hazards arising from the substance or mixture**

Non-flammable.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

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Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**6.3. Methods and material for containment and cleaning up****For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

No special fire protection measures are necessary.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed.

**Hints on joint storage**

No special measures are necessary.

**7.3. Specific end use(s)**

Getränkebehandlungsmittel

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

**8.2. Exposure controls**

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**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Use of protective clothing.

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	Flüssig
Colour:	clear
Odour:	Typical

**Test method**

Melting point/freezing point:	Nicht bestimmt
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	Keine Angaben verfügbar
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 20 °C):	4,3
Water solubility:	keine Angaben verfügbar
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	Keine Angaben verfügbar
Vapour pressure:	not determined
Density (at 20 °C):	300 g/cm <sup>3</sup>
Bulk density:	keine bestimmt
Relative vapour density:	not determined

**9.2. Other information****Information with regard to physical hazard classes****Explosive properties**

The product is not: Explosive.

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Oxidizing properties

The product is not: oxidising.

**Other safety characteristics**

Evaporation rate:

not determined

Solid content:

not determined

Sublimation point:

keine Angaben verfügbar

Softening point:

Keine Angaben verfügbar DIN 51920

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

none

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
79-33-4	Lactic acid				
	oral	LD50 3543 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rabbit		
	inhalation (4 h) dust/mist	LC50 7,94 mg/l	Rat		

**11.2. Information on other hazards****Further information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not: Ecotoxic.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
79-33-4	Lactic acid					
	Acute fish toxicity	LC50	320 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 mg/l	3500	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50	750 mg/l	48 h	Daphnia magna (Big water flea)	

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
79-33-4	Lactic acid	-0,72

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The product has not been tested.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

**SECTION 14: Transport information****Land transport (ADR/RID)****14.1. UN number or ID number:**

UN 3265

**14.2. UN proper shipping name:**

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

**14.3. Transport hazard class(es):**

8

**14.4. Packing group:**

I

Hazard label:

8



Classification code:

C3

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Special Provisions: 274  
 Limited quantity: 0  
 Excepted quantity: E0  
 Transport category: 1  
 Hazard No: 88  
 Tunnel restriction code: E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 3265  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Classification code: C3  
 Special Provisions: 274  
 Limited quantity: 5 L  
 Excepted quantity: E1

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 3265  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Special Provisions: 223 274  
 Limited quantity: 5 L  
 Excepted quantity: E1  
 EmS: F-A, S-B  
 Segregation group: 1 - acids

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 3265  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III  
 Hazard label: 8



Special Provisions: A3 A803  
 Limited quantity Passenger: 1 L  
 Passenger LQ: Y841  
 Excepted quantity: E1  
 IATA-packing instructions - Passenger: 852  
 IATA-max. quantity - Passenger: 5 L  
 IATA-packing instructions - Cargo: 856  
 IATA-max. quantity - Cargo: 60 L

**14.5. Environmental hazards**

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ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: strongly corrosive. Es liegen keine Informationen vor.

**14.7. Maritime transport in bulk according to IMO instruments**

Nicht anwendbar.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

Information according to 2012/18/EU  
(SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Abbreviations and acronyms**

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways



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(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method

**Relevant H and EUH statements (number and full text)**

H315 Causes skin irritation.

H318 Causes serious eye damage.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*