

* Lizerna Clear

Date revised: 19.09.2023

8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

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

1.1. Product identifier

Trade name

Lizerna Clear

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

Use of the substance/mixture

Cleaning material/ Detergent

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

BÜFA Cleaning GmbH & Co. KG

August-Hanken-Str. 30

26125 Oldenburg

Telephone no. +49 441 9317 0

Fax no. +49 441 9317 100

Information provided Department product safety / +49 441 9317 108

by / telephone

E-Mail sds-cleaning@buefa.de

1.4. Emergency telephone number

Poison Information Center Goettingen: +49 551 19240

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 4 H302

Skin Corr. 1B H314

Eye Dam. 1 H318

*
*
*

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008**Hazard pictograms *******Signal word**

Danger

Hazard statements ***

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

Precautionary statements ***

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P280.2	Wear protective gloves/ eye/ face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains *** ammonium fluoride; Isotridecanol, ethoxylated (5-20 EO); phosphoric acid; Hydrochloric acid

Sensitising substances

EUH208 Contains methenamine, May produce an allergic reaction.

2.3. Other hazards

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

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

CAS No.	7664-38-2
EINECS no.	231-633-2
Registration no.	01-2119485924-24-XXXX
Concentration	>= 10 < 25 %
Acute Tox. 4	H302
Met. Corr. 1	H290
Skin Corr. 1B	H314

Concentration limits (Regulation (EC) No. 1272/2008)

Eye Irrit. 2	H319	>= 10 < 25 %
Skin Corr. 1B	H314	>= 25 %
Skin Irrit. 2	H315	>= 10 < 25 %
cATpE oral	500	mg/kg

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note B

Isotridecanol, ethoxylated (5-20 EO)

CAS No.	69011-36-5
EINECS no.	500-241-6
Registration no.	01-2119976362-32-XXXX
Concentration	>= 3 < 10 %
Acute Tox. 4	H302
Eye Dam. 1	H318

Concentration limits (Regulation (EC) No. 1272/2008)

Eye Irrit. 2	H319	>= 1 < 10 %
Eye Dam. 1	H318	>= 10
ATE oral	1.000	mg/kg

ammonium bifluoride

CAS No.	1341-49-7
EINECS no.	215-676-4

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Version: 7 / GB

Master No. MA-213

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Registration no.	01-2119489180-38-XXXX		
Concentration	>=	5	< 6,5 %
Acute Tox. 3	H301		
Skin Corr. 1B	H314		

Concentration limits (Regulation (EC) No. 1272/2008)

	Eye Irrit. 2	H319	>= 0,1 < 1 %
	Skin Corr. 1B	H314	>= 1 %
	Skin Irrit. 2	H315	>= 0,1 < 1 %
ATE	oral	130	mg/kg

hydrochloric acid ... %

CAS No.	7647-01-0		
EINECS no.	231-595-7		
Registration no.	01-2119484862-27-XXXX		
Concentration	>=	3	< 5 %
Skin Corr. 1B	H314		
STOT SE 3	H335		

Concentration limits (Regulation (EC) No. 1272/2008)

	Eye Irrit. 2	H319	>= 10 < 25 %
	Skin Corr. 1B	H314	>= 25 %
	Skin Irrit. 2	H315	>= 10 < 25 %
	STOT SE 3	H335	>= 10 %

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note B

2-(2-butoxyethoxy)ethanol

CAS No.	112-34-5		
EINECS no.	203-961-6		
Registration no.	01-2119475104-44-XXXX		
Concentration	>=	1	< 10 %
Eye Irrit. 2	H319		

methenamine

CAS No.	100-97-0		
EINECS no.	202-905-8		
Registration no.	01-2119474895-20-XXXX		
Concentration	>=	0,1	< 1 %
Flam. Sol. 2	H228		
Skin Sens. 1	H317		

ammonium fluoride

CAS No.	12125-01-8		
EINECS no.	235-185-9		
Concentration	>=	0,1	< 0,21 %
Acute Tox. 3	H301		
Acute Tox. 3	H311		
Acute Tox. 3	H331		

cATpE	oral	100	mg/kg
cATpE	dermal	300	mg/kg
cATpE	inhalative, Dust/Mist	0,5	mg/l

For explanation of abbreviations see section 16.

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

* Lizerna Clear

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Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

After inhalation

Ensure supply of fresh air. Summon a doctor immediately.

After skin contact

Wash off immediately with soap and water.

After eye contact

In case of contact with the eyes rinse thoroughly with plenty of water or with an eye-cleaning solution. Seek medical advice immediately.

After ingestion

Do not induce vomiting. Call in a physician immediately and show him the Safety Data Sheet.

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

There is no further relevant information available

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

There is no further relevant information available

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

Carbon dioxide, Dry powder, Water spray jet, Extinguishing measures to suit surroundings

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters

Use self-contained breathing apparatus.
Cool endangered containers with water spray jet.

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

Keep people away and stay on the upwind side. Use breathing apparatus if exposed to vapours/dust/aerosol. Use personal protective clothing.

6.2. Environmental precautions

Do not allow to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (eg sand, kieselguhr, universal binder). When picked up, treat material as prescribed under Section 13 "Disposal".

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

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

Provide good ventilation of working area (local exhaust ventilation if necessary).
Containers in danger should be cooled with water.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in original packaging. Provide acid-resistant floor. Store product in closed containers.
Do not store together with: Alkalis
Protect from heat and direct sunlight.

* Lizerna Clear

Date revised: 19.09.2023

8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

7.3. Specific end use(s)

No information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

2-(2-butoxyethoxy)ethanol

List	EH40			
Type	WEL			
Value	67.5	mg/m ³	10	ppm(V)
Short term exposure limit	101.2	mg/m ³	15	ppm(V)

2-(2-butoxyethoxy)ethanol

List	IOELV			
Type	IOELV			
Value	67,5	mg/m ³	10	ppm(V)
Short term exposure limit	101,2	mg/m ³	15	ppm(V)

hydrochloric acid ... %

List	IOELV			
Type	IOELV			
Value	8	mg/m ³	5	ppm(V)
Short term exposure limit	15	mg/m ³	10	ppm(V)

phosphoric acid ... %

List	EH40			
Type	WEL			
Value	1	mg/m ³		
Short term exposure limit	2	mg/m ³		

phosphoric acid ... %

List	IOELV			
Type	IOELV			
Value	1	mg/m ³		
Short term exposure limit	2	mg/m ³		

8.2. Exposure controls

General protective and hygiene measures

Observe the usual precautions for handling chemicals. Personal protective equipment must comply with the Regulation (EC) No 2016/425 and the resulting CEN standards. The following information on personal protective equipment (PPE) is to be understood as a suggestion. The selection of the necessary PPE must be considered by the employer depending on the activities to be carried out and the local conditions. If it is determined during the on-site risk assessment that there is no danger to the employee, there is no need to wear PPE or the scope of the PPE to be used can be adjusted accordingly.

Respiratory protection

Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, Filter B

Hand protection

Chemical resistant gloves

Appropriate Material	nitrile		
Material thickness	>=	0,7	mm
Breakthrough time	>	480	min

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leaktightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

Eye protection

* Lizerna Clear

Date revised: 19.09.2023

8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

Tightly fitting safety glasses

Body protection

Acid-resistant protective clothing

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

Physical state	liquid			
Colour	colourless			
Odour	pungent			
Melting point				
Remarks	not determined			
Boiling point				
Remarks	not determined			
Flammability				
evaluation	not determined			
Explosion limits				
Remarks	not determined			
Flash point				
Value	> 100			°C
Ignition temperature				
Remarks	not determined			
Thermal decomposition				
Remarks	Not relevant			
pH value				
Value	1,5	to	2,5	
Concentration/H ₂ O	1	%		
Viscosity				
Value	appr. 10			s
Method	DIN 53211 4 mm			
Solubility in other solvents				
	not determined			
Octanol/water partition coefficient (log Pow)				
Remarks	Not relevant			
Vapour pressure				
Remarks	not determined			
Density				
Value	appr. 1,15			kg/l
Vapour density				
Remarks	not determined			
Particle characteristics				
Remarks	irrelevant (liquid)			
9.2. Other information				
Odour threshold				
Remarks	No data available			
Solubility in water				
Remarks	miscible			
No information available.				

* Lizerna Clear

Date revised: 19.09.2023

8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

SECTION 10: Stability and reactivity

10.1. Reactivity

Product reacts with: Alkalis

10.2. Chemical stability

The product is stable.

10.3. Possibility of hazardous reactions

Reactions with alkalis.

10.4. Conditions to avoid

Protect from heat and direct sunlight.

Thermal decomposition

Remarks Not relevant

10.5. Incompatible materials

Reactions with alkalis. Reactions with metals, with evolution of hydrogen.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

ATE	1.061	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	
The classification criteria are met.		

Acute oral toxicity (Components)

ammonium bifluoride

2-(2-butoxyethoxy)ethanol

Isotridecanol, ethoxylated (5-20 EO)

Reference substance	Isotridecanol, ethoxylated (5-20 EO)	
Species	rat	
LD50	appr. 1000	mg/kg
Source	Literature value	

Acute dermal toxicity

ATE	> 10.000	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	
Based on available data, the classification criteria are not met.		

Acute dermal toxicity (Components)

hydrochloric acid ... %

Reference substance	hydrochloric acid ... %	
Species	rabbit	
LD50	> 5010	mg/kg

2-(2-butoxyethoxy)ethanol

Isotridecanol, ethoxylated (5-20 EO)

Reference substance	Isotridecanol, ethoxylated (5-20 EO)	
Species	rabbit	
LD50	> 2000	mg/kg
Method	Value taken from the literature	

Acute inhalational toxicity

ATE	> 20	mg/l
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* Lizerna Clear

Date revised: 19.09.2023

8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

Administration/Form Dust/Mist
 Method calculated value (Regulation (EC) No. 1272/2008)
 Based on available data, the classification criteria are not met.

Acute inhalative toxicity (Components)**hydrochloric acid ... %**

Reference substance	hydrochloric acid ... %		
Species	rat		
LC50	8,3		mg/l
Duration of exposure	30	min	

Skin corrosion/irritation

evaluation corrosive
 The classification criteria are met.

Serious eye damage/irritation

evaluation corrosive
 The classification criteria are met.

Sensitization

Based on available data, the classification criteria are not met.

Sensitization (Components)

Based on available data, the classification criteria are not met.

Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity (STOT)**Single exposure**

Based on available data, the classification criteria are not met.

Repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

SECTION 12: Ecological information**12.1. Toxicity****Fish toxicity****hydrochloric acid ... %**

Reference substance	hydrochloric acid ... %		
Species	Bluegill (<i>Lepomis macrochirus</i>)		
LC50	3,25		mg/l
Duration of exposure	96	h	

2-(2-butoxyethoxy)ethanol

Reference substance	2-(2-butoxyethoxy)ethanol		
Species	sun perch		
LC50	1300		mg/l
Duration of exposure	96	h	

* Lizerna Clear

Date revised: 19.09.2023

8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

Isotridecanol, ethoxylated (5-20 EO)

Reference substance	Isotridecanol, ethoxylated (5-20 EO)		
Species	zebra fish (<i>Brachydanio rerio</i>)		
LC50	10	to	100 mg/l
Method	OECD 203		

Daphnia toxicity**hydrochloric acid ... %**

Reference substance	hydrochloric acid ... %		
Species	Daphnia magna		
EC50	4,92		mg/l
Duration of exposure	48	h	

2-(2-butoxyethoxy)ethanol

Reference substance	2-(2-butoxyethoxy)ethanol		
Species	Daphnia magna		
EC50	> 100		mg/l
Duration of exposure	48	h	
Reference substance	2-(2-butoxyethoxy)ethanol		
Species	Daphnia magna		
NOEC	112		mg/l
Duration of exposure	14	d	

Isotridecanol, ethoxylated (5-20 EO)

Reference substance	Isotridecanol, ethoxylated (5-20 EO)		
Species	Daphnia magna		
EC50	> 1	to	10 mg/l
Method	OECD 202		

Algae toxicity**hydrochloric acid ... %**

Reference substance	hydrochloric acid ... %		
Species	Chlorella vulgaris		
EC50	0,73		mg/l
Duration of exposure	72	h	
Method	OECD 201		

2-(2-butoxyethoxy)ethanol

Reference substance	2-(2-butoxyethoxy)ethanol		
Species	Desmodesmus subspicatus		
ErC50	> 100		mg/l
Duration of exposure	72	h	
Method	OECD 201		

Bacteria toxicity**hydrochloric acid ... %**

Reference substance	hydrochloric acid ... %		
Species	activated sludge		
EC50	0,23		mg/l
Method	OECD 209		

2-(2-butoxyethoxy)ethanol

Reference substance	2-(2-butoxyethoxy)ethanol		
Species	activated sludge		
EC10	> 1995		mg/l
Duration of exposure	30	min	
Source	Literature value		

Isotridecanol, ethoxylated (5-20 EO)

Reference substance	Isotridecanol, ethoxylated (5-20 EO)		
Species	activated sludge		
EC50	140		mg/l
Source	Literature value		

* Lizerna Clear

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8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

12.2. Persistence and degradability

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.Do not discharge product unmonitored into the environment.

Biodegradability

2-(2-butoxyethoxy)ethanol

Reference substance	2-(2-butoxyethoxy)ethanol			
Value	89	to	93	%
Duration of test evaluation	28	d		
Method	readily degradable OECD 301 C			

12.3. Bioaccumulative potential

For this subsection there is no ecotoxicological data available on the product as such.

Octanol/water partition coefficient (log Pow)

Remarks Not relevant

12.4. Mobility in soil

For this subsection there is no ecotoxicological data available on the product as such.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

The product contains no PBT substances. The product contains no vPvB substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties with respect to the environment

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

For this subsection there is no ecotoxicological data available on the product as such.

Behaviour in sewers [waste treatment plants]

The product is an acid. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations for the product

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

Disposal recommendations for packaging

Completely emptied packagings can be given for recycling.

SECTION 14: Transport information

* Lizerna Clear



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8770022211

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Master No. MA-213

Print date: 17.04.2024

	Land transport ADR/RID	Marine transport IMDG/GGVSee
14.1. UN number	2817	2817
14.2. UN proper shipping name	AMMONIUM HYDROGENDIFLUORIDE SOLUTION	AMMONIUM HYDROGENDIFLUORIDE SOLUTION
14.3. Transport hazard class(es)	8	8
Subsidiary risk	6.1, III	6.1, III
Label		
14.5. Environmental hazards	-	
Limited Quantity	5 l	5 l
Transport category	3	
Tunnel restriction code	E	
Hazard id. no.	86	
EmS		F-A, S-B

Information for all modes of transport

14.6. Special precautions for user

Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Other information

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information ***

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

Ingredients (Regulation (EC) No 648/2004)

5 % or over but less than 15 %:

non-ionic surfactants

VOC ***

VOC (EU) 0 %

Other information ***

The product does not contain substances according to: Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

* Lizerna Clear

Date revised: 19.09.2023

8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4	H302	Calculation method
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method

Hazard statements listed in Chapter 2/3

H228	Flammable solid.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.

CLP categories listed in Chapter 2/3

Acute Tox. 3	Acute toxicity, Category 3
Acute Tox. 4	Acute toxicity, Category 4
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Sol. 2	Flammable solid, Category 2
Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion, Category 1B
Skin Sens. 1	Skin sensitization, Category 1
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

Abbreviations

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses
 GGVSee: Gefahrgutverordnung See
 IMDG: International Maritime Code for Dangerous Goods
 CAS: Chemical Abstracts Service
 EAK: Europäischer Abfallkatalog
 EINECS: European Inventory of Existing Commercial Chemical Substances
 VOC: Volatile Organic Compound
 GefStoffV: Gefahrstoffverordnung
 TA Luft: Technische Anleitung zur Reinhaltung der Luft
 INCI: International Nomenclature of Cosmetic Ingredients
 n.a.g.: nicht anders genannt
 MAK: Maximale Arbeitsplatz-Konzentration
 AGW: Arbeitsplatzgrenzwert
 BGW: Biologischer Grenzwert
 TRGS: Technische Regeln für Gefahrstoffe
 OEL: Occupational exposure limit
 SUVA: Schweizerische Unfallversicherungsanstalt
 WEL: Workplace exposure limit
 MAC: Maximale aanvaarde concentratie (Netherlands)
 MEL: Maximum exposure limits
 NOEL: No observable effect level
 NOEC: No observable effect concentration
 LD: Lethal dose

*** Lizerna Clear**

Date revised: 19.09.2023

8770022211

Version: 7 / GB

Master No. MA-213

Print date: 17.04.2024

LC: Lethal concentration

LLC: Lowest lethal concentration

PBT: Persistent, Bioaccumulative and Toxic

vPvB: Very persistent and very bioaccumulative

SVHC: Substances of very high concern

DNEL: Derived no effect level

DMEL: Derived minimal effect level

PNEC: Predicted no effect concentration

PEC: Predicted environmental concentration

GHS: Globally Harmonized System of classification and Labelling of Chemicals

REACH: Registration, Evaluation, Autohorisation and Restriction of Chemicals

UN: United Nations

EG: Europäische Gemeinschaft

EWG: Europäische Wirtschaftsgemeinschaft

EU: European Union

HSNO: Hazardous Substances and New Organisms Act (New Zealand)

ATE: Acute Toxicity Estimate

STOT: Specific Target Organ Toxicity

IOELV: Indicative Occupational Exposure Limit Values

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.