



### **Environmental Product Declaration**

# MINERAL WATER natural sparkling Lete (PET 0,5 liters - 1,5 liters) and natural Sorgesana (PET 2,0 liters)







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Bottled waters, not sweetened or flavoured Geographical application: all the world











### THE COMPANY LETE SpA

Lete is a famous historical brand, it first appeared on the market back in 1893 when the Company began to bottle Lete mineral water from the Matese Mountains.

In 1906 they obtained the first international recognition when they were awarded the prestigious Grand Prix of Paris and Honour Prize in London. They have had great success, considering that it was a small distribution organisation, one that served the entire country. The best advertising was word of mouth, and yet that is how the reputation of Lete mineral water is spreading more and more.

The market started to grow and the organisation needed to respond to repeated requests, therefore production moved from manual bottling to almost exclusively to automatic bottling.

At the same time the first organized distribution network consisted of truck drivers who carried out deliveries with vans

'Aqua Lete' applies advanced technologies that work in synergy with the quality and organizational efficiency. In 1985 the General Society of Mineral Waters (SGAM) came into effect It later became Lete Spa in 2011.

Thanks to the organisation investing in new technologies, this enabled them to modernise their facilities enabling them to anticipate the complex market requirement of the beverage industry providing customers with easy to carry and convenient to use containers both in glass production and in PET.

They have created a cutting edge 'bottling company' in terms of technology and organization, and managed to launch and distribute its mineral waters all over the country, thanks to the widespread distribution of SIDAM, which sells exclusive brands Lete, Prata and Sorgesana. All these brands have contributed to the success of what is now one of the most important Italian businesses in the beverage sector.







### **Environmental and social responsibility**

The company has for years been committed to finding operational and management methodologies to ensure the sustainability and ethics of its activities and in doing so work with strong determination in the pursuit of the objectives set out in its Environmental Policy and Security, such as:

- ✓ ensure respect for the environment in which it is established by preventing any form of pollution to protect the resource and territory;
- ✓ ensure compliance with the obligations arising from the application of the rules in terms
  of quality, safety and the environment through specific management systems;
- ✓ continuous improvement of its environmental performance.

These objectives are backed with a commitment to:

- ✓ maintain an Environmental Management System that complies with the requirements of UNI EN ISO 14001: 2015;
- ✓ measure and improve environmental performance in order to minimize environmental impacts, including emissions of Greenhouse Gases (Carbon Footprint), according to the International Standard ISO 14064-1;
- ✓ measure and improve the environmental performance in order to minimize the environmental impacts, not least emissions of greenhouse gases or "Carbon Footprint";
- ✓ maintain a collective commitment to the environment through training and involvement of people who work for the organization or on its behalf;
- ✓ prevent or mitigate adverse environmental impacts associated with emergency situations.

### **Production process**

The production plant of Lete SPA is located in the town of Pratella (CE). The area is located at the foot of the north-western Matese Massif, rugged mountain range that divides the Campania from Molise.

The plant consists of three plants for processing of the raw material PET and ten bottling lines (two for the glass and eight for PET).

The mineral water, withdrawn from the aquifer by means of wells and springs, is conveyed to the bottling lines where, by means of highly technological plants, is packaged in various sizes, both in glass bottles and PET.







### Natural sparkling mineral water Lete - natural mineral water Sorgesana

Mineral waters Lete and Sorgesana are two mineral waters which differ in their chemicalphysical composition and especially for the content of free carbon dioxide to the source.

#### Natural sparkling mineral water Lete

Mineral water Lete is classified, pursuant to Legislative Decree 176/2011, as *natural sparkling mineral water*, because of its high content of carbon dioxide, bicarbonate, calcium magnesium for its content in bicarbonates of calcium and magnesium.

Table 1: Rome "La Sapienza" University – Management Department (January 2018)

ANALYTICAL PARAMETERS OF LETE MINERAL	WATER
Parameter	Value
Electrical conductivity K20°C (μS/cm)	1220
Residue 180°C (mg/l)	880
pH at 15 °C	6,4
Free carbon dioxide at source CO <sub>2</sub> (mg/l)	1980
Calcium (mg/l)	315
Magnesium (mg/l)	13,5
Sodium (mg/l)	5,15
Potassium (mg/l)	1,90
Bicarbonate (mg/l)	1020
Chloride (mg/l)	10,30
Nitrate (mg/l)	5,40
Fluoride (mg/l)	0,30
Silica	12,40

The mineral water Lete, in its path between the rocks, is enriched with minerals and receives the gift of natural effervescence, which is materialized in its delicate bubbles of carbon dioxide. With 5 mg / I water Lete is a natural effervescence with a low sodium content. It's ideal for low-sodium diets indicated in the case of high blood pressure, serious cause of cardiovascular disease, and water retention.

In addition to its delicate effervescence and its capacity refreshing, the mineral water Lete, rich in bicarbonates, helps digestion.

The mineral water Lete also represents a considerable source of supply of elemental calcium. An essential element in the human body both for bone growth and for the treatment and prevention of bone diseases such as osteoporosis.







The mineral water Lete is bottled both in glass bottles (sizes: 0.25 I - 0.33 I - 0.46 I - 0.5 I - 0.75 I - 0.92 I - 1 I), and in PET bottles (sizes: da 0.5 I - 1 I - 1.5 I).

This EPD is related to Lete mineral water bottled in PET 0,5 I - 1,5 I.

#### Natural mineral water Sorgesana

The mineral water Sorgesana, is characterized by a low value of fixed residue and, for this belongs to the category of mineral waters "trace elements".

Table 2: Rome "La Sapienza" University – Management Department (03/12/2013)

ANALYTICAL PARAMETERS OF SORGESANA MINERAL WATER						
Parameter	Value					
Electrical conductivity K20°C (μS/cm)	460					
Residue 180°C (mg/l)	265					
pH at 15 °C	7,02					
Free carbon dioxide at source CO <sub>2</sub> (mg/l)	20					
Calcium (mg/l)	86					
Magnesium (mg/l)	11,40					
Sodium (mg/l)	3,35					
Potassium (mg/l)	0,85					
Bicarbonate (mg/l)	312					
Chloride (mg/l)	5,30					
Nitrate (mg/l)	3,40					
Fluoride (mg/l)	0,11					
Silica	4					

Sorgesana is a light and pure mineral water, purifies the body naturally and, with only 3.5 mg / I of sodium, is indicated in the low-salt diets.

The mineral water Sorgesana is bottled both in glass bottles (sizes:  $0.5 \cdot 1 - 0.75 \cdot 1 - 0.92 \cdot 1 - 1 \cdot 1$ ), and in PET bottles (sizes:  $0.33 \cdot 1 - 0.50 \cdot 1 - 1 \cdot 1 - 1.5 \cdot 1 = 2 \cdot 1$ ).

This EPD is related to Sorgesana mineral water bottled in PET 2 I.







### **Declaration of contents**

The following table reports information about the material content of three products. The materials and substances contained in the following table are not made up of dangerous substances.

Table 3: List of materials analyzed for Lete 0,5, Lete 1,5 L and Sorgesana 2 L products

	Content of materials and chemical substances									
		kg fo	or 1 liter of	product	% f	or 1 liter of p	product			
PRODUCT DESCRIPTION AND MATERIALS		Lete PET 0,5 liters	Lete PET 1,5 liters	Sorgesana PET 2,0 liters	Lete PET 0,5 liters	Lete PET 1,5 liters	Sorgesana PET 2,0 liters			
PRODUCT	Mineral water	1	1	1	95,72%	96,86%	97,70%			
PRODUCT	Carbon dioxide	0,002	0,002	-	0,19%	0,19%	-			
	Bottle (PET)	0,0296	0,0199	0,0141	2,83%	1,93%	1,38%			
	Cap (HDPE)	0,0042	0,0014	0,0007	0,40%	0,14%	0,07%			
PRIMARY PACKAGING	Label (paper for Lete 0,5 l - paper/PET for Lete 1,5 l and Sorgesana 2,0 l)	0,0006	0,0008	0,0005	0,06%	0,07%	0,05%			
	Glue	0,00003	0,00003	0,00004	0,002%	0,002%	0,004%			
	Film for pack (LDPE)	0,0019	0,0019	0,0020	0,18%	0,19%	0,19%			
SECONDARY PACKAGING	Handle (coated paper)	-	0,00007	0,0001	-	0,01%	0,01%			
	Ribbon for handle (PP)	-	0,00001	0,0001	-	0,001%	0,01%			
	Interlayers (cardboard)	0,0019	0,0019	0,0016	0,18%	0,18%	0,15%			
	Stretch film (LDPE)	0,0005	0,0005	0,0005	0,05%	0,05%	0,04%			
TERTIARY	Pallet (wood)	0,0002	0,0002	0,0003	0,02%	0,02%	0,03%			
PACKAGING	Label for pallet (paper)	0,0036	0,0036	0,0036	0,34%	0,35%	0,35%			
	Ribbon for pallet (paper)	0,000001	0,000001	0,000001	0,0001%	0,0001%	0,0001%			
	Top film (HDPE)	0,0002	0,0002	0,0002	0,02%	0,02%	0,02%			







#### **DECLARATION OF ENVIRONMENTAL PERFORMANCES**

#### **Methodology**

The purpose of this study is the quantification of the environmental impact related to the life cycle of the following three sizes of bottled mineral water, produced in the Lete SpA plant of Pratella (Caserta - Italy):

- ✓ Lete natural sparkling mineral water, 0,5 liters PET size;
- ✓ Lete natural sparkling mineral water, 1,5 liters PET size;
- ✓ Sorgesana natural mineral water, 2 liters PET size.

This statement was prepared using *life cycle assessment methodology* (*LCA*), according to **ISO 14040:2006** (*Environmental management - Life cycle assessment - Principles and frame work*) and **ISO 14044:2006** (*Environmental management - Life cycle assessment - Requirements and guidelines*) Standards and regarding the assessment of the environmental impact concerning all of the life cycle phases of a product.

The data used for this analysis consist of site-specific data, directly collected in the Lete SpA plant, and generic data (selected generic data and other generic data), taken from Ecoinvent 3.4 data-base, integrated in SimaPro 8.5 software.

According to PCR 2010: 11 (version 3.0) "Bottled waters, not sweetened or flavoured", the contribution of other generic data does not exceed 10% of the total impact of each impact category.

The electricity used in the Pratella plant entirely derives from renewable resources, as guaranteed by the RECS certificates (Renewable Energy Certificate System). So in this study the renewable electric energy mix (hydroelectric energy) reported on the certificates of the supplier was considered.

For the transport of raw materials, packaging materials and auxiliary materials from the suppliers to Lete plant, as well for the distribution of the products to final customers, the actual distances were considered.

### **Functional unit**

The declared unit is **1** liter of bottled mineral water, therefore all the results reported in the following paragraphs refer to 1 liter of water

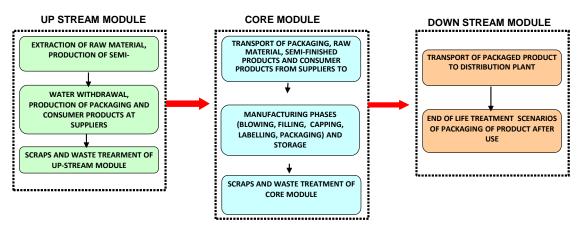
### System boundaries

According to PCR 2010:11 (UN CPC 24410 "Bottled waters, not sweetened or flavoured"), as illustrated in the diagram below, the boundaries of the system include the production and transport of raw materials, filling, transport and end of life of mineral water.









System boundaries (from PCR "Bottled waters, not sweetened or flavoured - UN CPC 24410")

The processes to be considered for the assessment of the life cycle of water are divided as follows:

#### **UPSTREAM PROCESSES**

The upstream module includes the following processes:

- ✓ water withdrawal, with related energy consumption;
- ✓ production of auxiliary materials used in the production process (as: detergents for cleaning, lubricant oils, etc.);
- ✓ production of primary (e.g.: bottle, cap), secondary (e.g.: film for pack) and tertiary (e.g.: stretch film, pallet) packaging.

#### **CORE PROCESSES**

The core module includes the following processes:

- ✓ transport of raw materials, auxiliary materials and packaging materials from suppliers to the Lete plant;
- ✓ all operations concerning the production of bottled mineral water (preforming, blow molding, filling, capping, labeling, packaging), included energy consumption, fuel consumption related to products handling within the plant, water consumption, air emissions and water discharges of the plant;
- ✓ storage of the products;
- ✓ treatment of wastes and scraps generated by production processes.

#### **DOWNSTREAM PROCESSES**

The downstream module includes the following processes:

- ✓ transport of packaged product from the Lete plant to an average distribution platform;
- ✓ end of life of the primary, secondary and tertiary packaging, included the treatment of the packaging wastes after use.

About the disposal of primary, secondary and tertiary packaging, a qualitative analysis was carried out, because it's a phase of the life cycle strictly dependent on the habits of the final consumer.







End of life data of product packaging are based on specific scenarios (recycling, energy recovery, landfill) derived from the municipal waste annual report "Rapporto rifiuti urbani 2017" of ISPRA (Italian acronym for *Higher Institute for Environmental Protection and Research*) and referred to 2016:

**Table 4: Specific scenario** 

	PLASTIC	PAPER/CARDBOARD	WOOD
RECYCLING	41%	79,7%	60,6%
ENERGY RECOVERY	40%	8,6%	2,9%
LANDFILL	19%	11,8%	36,5%

As required by PCR 2010: 11, the following processes are excluded from the system:

- ✓ use phase;
- ✓ manufacturing of production equipment, buildings and other capital goods;
- ✓ business travel of personnel;
- ✓ research and development activities.

#### **Time boundaries**

All site-specific data collected at the Lete SpA plant in Pratella is referred to the 2017 data production.







### **Environmental impact assessment: results**

Life Cycle Assessment analysis was made using SimaPro software (version 8.5), making calculations by means of EPD 2013 method and IPCC 2013 Global Warming Potentials.

The following tables show Life Cycle Assessment results related to the three analyzed products. Environmental impact is quantified, for each life cycle phase, as:

- ✓ emission of greenhouse gases (g CO₂eq);
- ✓ emission of acidifying gases (g SO₂eq);
- ✓ emission of gases that contribute to tropospheric ozone creation (g C<sub>2</sub>H<sub>4</sub>eq);
- $\checkmark$  emission of substances that contribute to eutrophication process (g PO<sub>4</sub><sup>3</sup>-eq);
- ✓ material resources consumption, as renewable (g), non renewable (g) and secondary (g) resources;
- energy resources consumption, as renewable (MJ), non renewable (g) and secondary (g) resources;
- ✓ recovered energy flows (MJ);
- ✓ produced hazardous, non hazardous and recyclable waste (g);
- ✓ water consumption (I).

The following results refer to 1 liter of bottled mineral water (functional unit).









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The Table 5 reports **potential environmental impacts** related to the life cycle of 1 liter of Lete mineral water (size 0,5 l), as prescribed by Product Category Rules.

Table 5 The potential environmental impacts in life cycle of Lete 0,5 L

Table 5 The potential environmental impacts in the cycle of Lete 0,5 L										
LETE 0,5 liters (data referred to 1 liter of bottled mineral water)										
<u>Pete</u>	IMPACT CATEGORIES	Unit Total	UPSTREAM	CORE	DOWNSTREAM					
	CATEGORIES					Distribution	Packaging end of life			
	Global warming	g CO₂eq	235,01	167,25	7,83	41,65	17,570			
POTENTIAL	Acidification	g SO₂eq	0,966	0,750	0,024	0,186	0,005			
ENVIRONMENTAL IMPACT	Photochemical oxidation	g C₂H₄eq	0,051	0,043	0,001	0,007	0,000			
	Eutrophication	g PO <sub>4</sub> ³-eq	0,353	0,239	0,007	0,037	0,072			







The Table 6 reports material and energy resources (renewable, non renewable and secondary) consumption related to the life cycle of 1 liter of Lete mineral water (size 0,5 l), as prescribed by Product Category Rules.

Table 6 Consumption of material and energy resources related to life cycle of Lete 0,5 L

	material and energy resource			ferred to 1 liter o	f bottled minera	water)		
<u>Cete</u>	IMPACT	Unit	Total	UPSTREAM	CORE	DOWN	DOWNSTREAM	
Community Commun	CATEGORIES	Offic	Total	OFSTREAM	CORE	Distribution	Packaging end of life	
	Non renewable	g	115,05	97,19	2,16	15,57	0,13	
	Oil	g	50,13	35,48	1,50	13,06	0,08	
	Gas natural	g	24,04	23,30	0,12	0,60	0,02	
	Coal	g	40,89	38,41	0,53	1,91	0,04	
ENERGY	Uranium	g	0,0008	0,0007	5,9E-06	2,72E-05	5,97E-07	
RESOURCES	Renewable	MJ	0,414	0,315	0,089	0,009	0,0002	
CONSUMPTION	Hydroelectric power	MJ	0,141	0,089	4,59E-02	0,006	9,60E-05	
	Biomass power	MJ	0,205	0,202	7,24E-04	0,003	9,34E-05	
	Wind power	MJ	0,025	0,024	2,07E-04	6,90E-04	1,05E-05	
	Solar power	MJ	0,042	5,29E-05	4,24E-02	4,01E-05	1,87E-07	
	Secondary	g	0	0	0	0	0	
	Non renewable	g	119,93	72,47	4,64	39,91	2,88	
	Gravel	g	59,36	16,77	3,70	36,11	2,77	
MATERIAL	Coal	g	40,88	38,41	0,53	1,91	0,03	
RESOURCES CONSUMPTION	Others	g	19,69	17,29	0,42	1,90	0,08	
	Renewable (Wood)	g	7,45	7,31	0,03	0,11	0,00	
	Secondary	g	0	0	0	0	0	







The Table 7 reports, as prescribed by Product Category Rules, the quantification of **recovered energy flows**, **produced waste** and **water consumed** along the life cycle of 1 liter of Lete mineral water (size 0,5 l).

 $Table\ 7\ Recovered\ energy\ flows,\ the\ waste\ produced\ and\ the\ volume\ of\ water\ consumed\ during\ the\ life\ cycle\ of\ Lete\ 0,5\ L$ 

Table / Recovered en	LETE 0,5 liters (data referred to 1 liter of bottled mineral water)									
IMPACT CATEGORIES		Unit	it Total	UPSTREAM	CORE	DOWNSTREAM				
	CATEGORIES					Distribution	Packaging end of life			
RECOVERED I	ENERGY FLOWS	MJ	0	0	0	0	0			
	Hazardous waste	g	0,0019	0	0,0019	0	0			
WASTE	Radioactive waste	g	0	0	0	0	0			
PRODUCTION	Non hazardous waste	g	23,004	0	0,146	0	22,858			
	Recyclable g g	g	18,97	0,0567	0,76	0	18,15			
WATER	Total consumption	1	12,581	10,915	1,201	0,443	0,022			
CONSUMPTION (*)	Direct consumption of production (**)	ı	1,023	0	1,023	0	0			

<sup>(\*)</sup> Water consumption for hydroelectric energy production is not included.



<sup>(\*\*)</sup> Bottled water consumption (1 liter) is included.





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The Table 8 reports **potential environmental impacts** related to the life cycle of 1 liter of Lete mineral water (size 1,5 l), as prescribed by Product Category Rules.

Table 8 The potential environmental impacts in life cycle of Lete 1,5 L

Table 8 The potential environmental impacts in the cycle of Lete 1,5 L									
LETE 1,5 liters (data referred to 1 liter of bottled mineral water)									
Pete	IMPACT CATEGORIES Unit		Unit Total	UPSTREAM	CORE	DOWNSTREAM			
	CATEGORIES					Distribution	Packaging end of life		
	Global warming	g CO₂eq	181,34	112,40	6,59	50,67	11,68		
POTENTIAL	Acidification	g SO₂eq	0,737	0,487	0,019	0,226	0,003		
ENVIRONMENTAL IMPACT	Photochemical oxidation	g C₂H₄eq	0,038	0,029	0,001	0,008	0,0004		
	Eutrophication	g PO <sub>4</sub> ³-eq	0,261	0,163	0,005	0,045	0,047		







The Table 9 reports material and energy resources (renewable, non renewable and secondary) consumption related to the life cycle of 1 liter of Lete mineral water (size 1,5 l), as prescribed by Product Category Rules.

Table 9 Consumption of material and energy resources related to life cycle of Lete 1,5 L

		LETE	1,5 liters (data rej	ferred to 1 liter o	f bottled mineral	water)	
	IMPACT	Unit	Total	UPSTREAM	CORE	DOWNS	TREAM
Pete	CATEGORIES	Onit	Total	OFSTREAM	CORL	Distribution	Packaging end of life
	Non renewable	g	86,03	65,07	1,69	18,94	0,09
	Oil	g	40,04	22,98	1,11	15,89	0,06
	Gas natural	g	16,68	15,61	0,11	0,73	0,01
	Coal	g	29,31	26,48	0,47	2,32	0,02
ENERGY	Uranium	g	5,34E-04	4,95E-04	5,09E-06	3,31E-05	4,4978E-07
RESOURCES	Renewable	MJ	0,376	0,275	0,089	0,011	0,00014
CONSUMPTION	Hydroelectric power	MJ	0,114	0,061	0,046	0,007	0,00007
	Biomass power	MJ	0,202	0,198	6,30E-04	0,004	0,00006
	Wind power	MJ	0,017	0,016	1,87E-04	0,001	7,59E-06
	Solar power	MJ	0,043	5,53E-05	0,042	4,88E-05	1,43E-07
	Secondary	g	0	0	0	0	0
	Non renewable	g	102,34	48,770	3,070	48,568	1,933
	Gravel	g	57,969	9,912	2,265	43,938	1,854
MATERIAL	Coal	g	29,004	26,200	0,459	2,320	0,024
RESOURCES CONSUMPTION	Others	g	15,367	12,658	0,346	2,309	0,054
22	Renewable (Wood)	g	7,238	7,079	0,021	0,136	0,002
	Secondary	g	0	0	0	0	0







The Table 10 reports, as prescribed by Product Category Rules, the quantification of **recovered energy flows**, **produced waste** and **water consumed** along the life cycle of 1 liter of Lete mineral water (size 1,5 l).

Table 10 Recovered energy flows, the waste produced and the volume of water consumed during the life cycle of Lete 1,5 L

LETE 1,5 liters (data referred to 1 liter of bottled mineral water)									
LETE 1,5 liters (data rejerred to 1 liter of bottled mineral water)									
<u>Cete</u>	IMPACT CATEGORIES	Unit	Total	UPSTREAM	CORE	DOWNSTREAM			
						Distribution	Packaging end of life		
RECOVERED I	ENERGY FLOWS	MJ	0	0	0	0	0		
	Hazardous waste	g	0,00186	0	0,00186	0	0		
WASTE	Radioactive waste	g	0	0	0	0	0		
PRODUCTION	Non hazardous waste	g	23,004	0	0,146	0	22,86		
	Recyclable waste	g	18,966	0,05674	0,75828	0	18,1513		
WATER	Total consumption	I	9,518	7,764	1,185	0,540	0,015		
CONSUMPTION (*)	Direct consumption of production (**)	ı	1,023	0	1,023	0	0		

<sup>(\*)</sup> Water consumption for hydroelectric energy production is not included.



<sup>(\*\*)</sup> Bottled water consumption (1 liter) is included.





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The Table 11 reports **potential environmental impacts** related to the life cycle of 1 liter of Sorgesana mineral water (size 2 l), as prescribed by Product Category Rules.

Table 11 The potential environmental impacts in life cycle of Sorgesana 2 L

Table 11 The potential environmental impacts in the cycle of Sofigesana 2 E										
SORGESANA 2 liters (data referred to 1 liter of bottled mineral water)										
	IMPACT CATEGORIES Unit		Total	UPSTREAM	CORE	DOWNSTREAM				
	CATEGORIES					Distribution	Packaging end of life			
	Global warming	g CO₂eq	118,76	78,92	3,34	27,13	8,65			
POTENTIAL	Acidification	g SO₂eq	0,493	0,355	0,013	0,121	0,003			
IMPACT	Photochemical g C₂H₄eq	0,026	0,020	0,001	0,004	0,00031				
	Eutrophication	g PO <sub>4</sub> ³-eq	0,176	0,114	0,004	0,024	0,034			







The Table 12 reports material and energy resources (renewable, non renewable and secondary) consumption related to the life cycle of 1 liter of Sorgesana mineral water (size 2 I), as prescribed by Product Category Rules.

Table 12 Consumption of material and energy resources related to life cycle of Sorgesana 2 L

		SORGES	ANA 2 liters (data	referred to 1 lite	er of bottled mine	ral water)		
	IMPACT	I I a i a	Tatal	LIDSTDEANA	CORE	DOWNS	DOWNSTREAM	
	CATEGORIES	Unit	Total	UPSTREAM	CORE	Distribution	Packaging end of life	
	Non renewable	g	57,40	45,73	1,23	10,14	0,07	
	Oil	g	25,95	16,67	0,72	8,51	0,040	
	Gas natural	g	11,77	11,06	0,09	0,39	0,007	
	Coal	g	19,69	18,00	0,42	1,24	0,018	
ENERGY	Uranium	g	3,69E-04	3,47E-04	4,3E-06	1,77E-05	3,5E-07	
RESOURCES	Renewable	MJ	0,304	0,209	0,089	0,0062	0,00011	
CONSUMPTION	Hydroelectric power	MJ	0,0914	0,0421	0,0456	0,0036	5,40103E-05	
	Biomass power	MJ	0,1589	0,1562	0,0005	0,0021	4,75238E-05	
	Wind power	MJ	0,01155	0,01093	0,00017	0,00045	5,72771E-06	
	Solar power	MJ	0,04245	2,58929E-05	0,04240	2,61021E-05	1,11515E-07	
	Secondary	g	0	0	0	0	0	
	Non renewable	g	64,735	35,014	2,281	26,004	1,412	
	Gravel	g	34,540	8,097	1,550	23,525	1,354	
MATERIAL RESOURCES	Coal	g	19,693	18,005	0,421	1,242	0,018	
CONSUMPTION	Others	g	10,502	8,913	0,309	1,236	0,040	
	Renewable (Wood)	g	5,735	5,642	0,019	0,073	0,002	
	Secondary	g	0	0	0	0	0	







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The Table 13 reports, as prescribed by Product Category Rules, the quantification of **recovered energy flows**, **produced waste** and **water consumed** along the life cycle of 1 liter of Sorgesana mineral water (size 2 l).

Table 13 Recovered energy flows, the waste produced and the volume of water consumed during the life cycle of Sorgesana 2 L

SORGESANA 2 liters (data referred to 1 liter of bottled mineral water)							
	IMPACT CATEGORIES	Unit	Total	UPSTREAM	CORE	DOWNSTREAM	
						Distribution	Packaging end of life
RECOVERED ENERGY FLOWS		MJ	0	0	0	0	0
WASTE PRODUCTION	Hazardous waste	g	0,0019	0	0,0019	0	0
	Radioactive waste	g	0	0	0	0	0
	Non hazardous waste	g	11,382	0,000	0,080	0,000	11,30
	Recyclable waste	g	10,772	0,033	0,660	0,000	10,080
WATER CONSUMPTION (*)	Total consumption	ı	6,924	5,435	1,174	0,289	0,011
	Direct consumption of production (**)	I	1,023	0	1,023	0	0

<sup>(\*)</sup> Water consumption for hydroelectric energy production is not included.



<sup>(\*\*)</sup> Bottled water consumption (1 liter) is included.





#### OTHER INFORMATIONS

#### **Other environmental informations**

#### 100% Clean Energy

Since 2004 Lete S.p.a. was the first food company in Italy to use 100% green energy off setting their energy consumption with RECS (Renewable Electricity Certificate System), allowing it to support the production of electricity from renewable resources such as sun, wind and water. The RECS certificates attest to the successful clearing of the energy used. The partnership with Enel Energia has been replaced, in 2010, by that with EON. Expounding on the packaging of all our products the brand EON 100% clean energy, we confirm to be a company with a strong environmental awareness, ready to take action to protect the ecosystem and consumer awareness, to develop towards the environment increasing attention and consideration.

#### 100% Recyclable Bottles

The plastic bottles used for packaging of our mineral water are produced with PET (polyethylene terephthalate), a noble material that is **100% recyclable**, with qualities of safety, transparency and manageability, ensures better preservation of food quality in respect of the environment. In compliance with current regulations we adhere to the system CONAI (collection sorting and recycling of packaging materials) paying an environmental contribution for each pack used and entered in the national territory.

#### **Certifications**

The company for over a decade has been certified against the international standard UNI EN ISO 9001:2008.

Our vision of business growth, anchored in respect for the environment and linked to greater transparency and warranty claims against the territory, has led us to achieve ISO 14001 certification in 2007. Through the environmental management tool we constantly monitor all the activities that have a direct and indirect impact on the environment: from using natural resources to the production of waste, from the control of emissions into the atmosphere to use, recovery and disposal of containers, from wastewater to pollution of the soil and subsoil up to the "environmental" Behavior Monitoring of contractors, subcontractors and suppliers. Monitoring of the environmental impacts of our production activities, with a view to improving the sustainability of the organization, led Lete Spa to certification of its Carbon Footprint of organization, which took place in 2011 according to ISO 14064-1. The analysis of the time course of this indicator, which summarizes the contribution to the greenhouse effect in terms of tonnes of carbon dioxide allows us to check in terms of sustainability, the effectiveness of policies already implemented.







### **Additional general informations**

EPD (Environmental Product Declaration) is a public document, that must be rewewed every three years. This EPD was prepared according to Product Category Rules 2010:11 (version 3.0) "Bottled Waters, not sweetened or flavoured".

Additional informations are available on the IVL Swedish Environmental Research Institute website: www.environdec.com.

EPDs within the same product category but from different programmes may not be comparable.

Product Category Rules (PCR): PCR 2010:11 – Bottled waters, not sweetened or flavoured, version 3.0

Product Category Rules (PCR) review was conducted by: *The Technical Committee of the International EPD® System —Filippo Sessa - info@environdec.com* 

Independent verification of the declaration and data, according to ISO 14025:2010:

□ EPD process certification ■ EPD verification

Third party verifier:

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**REGISTRATION NUMBER: S-P-00394** 

THIS EPD IS VALID UNTIL: 22/08/2021

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#### **REFERENCES**

- ✓ General Programme Instructions for the International EPD system version 2.5
- ✓ Standards: UNI EN ISO 14040 UNI EN ISO 14044 UNI EN ISO 14025
- ✓ Product Category Rules 2010: 11 (version 3.0) "Bottled Waters, not sweetened or flavoured "
- ✓ Project SimaPro 8.5 (database: Ecoinvent 3.4)
- ✓ Life Cycle Assessment Report rev. 01 10/05/2018
- ✓ "Rapporto Rifiuti Urbani 2017" (ISPRA)

