



## **LIVAL** - ENVIRONMENTAL PRODUCT DECLARATION

almost 60 years

dynamic light



### Product Information

Product name:	Hony E 2x18W/31 vit
Product code:	10 624
Total weight:	850 g (without packaging)
Material content (weight-%)	
Plastics	43 %
Electronics	26 %
Aluminium	16 %
Light source	15 %

Product packaging is mainly corrugated cardboard, which can be recycled after use.

### Environmental Information

Functional unit	1 product (without packaging)
Estimated lifetime	5 years
Estimated annual use	3 456 hours
Lifetime electricity use	690 kWh
Electricity used in production (Lival)	3 kWh
Lumen output	2x1150 Lumen
Estimated lifetime of a light source	8 000 hours

Environmental impacts include:

- Raw material acquisition and transport.
- Production and transport of components.
- Production, use of utilities and other supplementary actions at factory site.
- Product transport to the user (estimated transport distance = 100 km).
- Production of electricity consumed during the use phase.
- Production of supplementary light sources.
- End of use according to present practices.

The product is assumed to be used in Finland and the electricity profile is calculated according to the average Finnish electricity production profile (Nuclear 27%, hydro power 18%, hard coal 11%, natural gas 10%, peat 5%, others 12% and import 15%).

Total water use in production is about 800 grams per product.

Results of Inventory [g/item]

	Front-end 1)	Production	Use	Others 2)	Total
<b>Air emissions</b>					
Methane, CH4	20	<1	340	10	370
Carbon monoxide, CO	20	<1	150	<1	170
Carbon dioxide, CO2	6 000	470	133 700	230	140400
Particulates	10	<1	200	<1	210
Hydrocarbons	10	<1	30	<1	40
HCl	<1	<1	40	<1	40
Nitrous oxide, N2O	<1	<1	10	<1	10
Nitrogen oxides, NOx	20	<1	230	4	250
Sulphur dioxide, SO2	40	<1	240	0	280
<b>Water emissions</b>					
Chemical oxygen demand (COD)	<1	<1	<1	<1	<1
Oils	<1	0	20	<1	20
Nitrogen	<1	0	0	0	<1
Nitrates	<1	<1	<1	0	<1
Sulphates	30	4	680	0	710
Total dissolved solids (TDS)	4	<1	310	0	320
Total suspended solids (TSS)	2	<1	40	0	40
<b>Solid waste</b>					
Ashes	12	20	5 000	2	5 030
Hazardous waste	40	1	0	0	41
Industrial solid waste	2 600	530	166 000	900	170 000
Total solid waste	2 652	551	171 000	902	175 100

1) Includes material acquisition

2) Includes waste treatment and all the transports (also transportation of materials and components)

It is assumed that used products and packaging are landfilled after use. The material or energy content of these products has not been taken into account in the calculation of this profile.

Impact Assessment

Impact category	Unit	Production	Use	Total
Global warming potential (GWP)	kg CO2- equiv	7	143	150
Acidification	kg SO2- equiv	0,06	0,45	0,51
Eutrophication	kg PO4- equiv	0,003	0,031	0,034
Primary energy	MJ	684	3 590	4 280

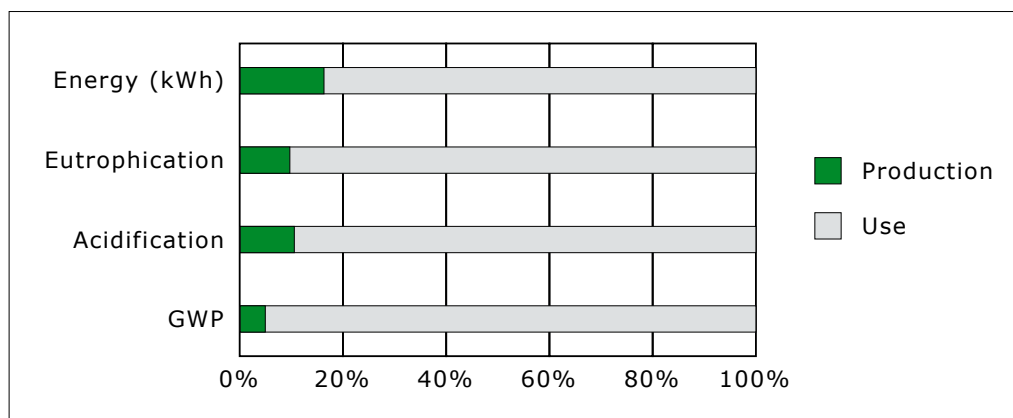


Figure 1. The division of the impact assessment results between production and use



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