

Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Silicone Super Glider Spray



TerJan

The Norwegian EPD Foundation

Owner of the declaration:

AS Terjan

Product:

Silicone Super Glider Spray

Declared unit:

1 kg

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR

NPCR 009:2021 Part B for Technical - Chemical products for building and construction industry

Program operator:

The Norwegian EPD Foundation

Declaration number:

NEPD-11274-11217

Registration number:

NEPD-11274-11217

Issue date:

02.06.2025

Valid to:

02.06.2030

EPD software:

LCAno EPD generator ID: 907333

General information

Product

Silicone Super Glider Spray

Program operator:

The Norwegian EPD Foundation
Post Box 5250 Majorstuen, 0303 Oslo, Norway
Phone: +47 977 22 020
web: www.epd-norge.no

Declaration number:

NEPD-11274-11217

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR
NPCR 009:2021 Part B for Technical - Chemical products for building
and construction industry

Statement of liability:

The owner of the declaration shall be liable for the underlying
information and evidence. EPD Norway shall not be liable with respect
to manufacturer information, life cycle assessment data and
evidences.

Declared unit:

1 kg Silicone Super Glider Spray

Declared unit with option:

A1-A3, A4, A5, C1, C2, C3, C4, D

Functional unit:

Not applicable.

General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information
and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4.
Verification of each EPD is made according to EPD-Norway's
guidelines for verification and approval requiring that tools are i)
integrated into the company's environmental management system, ii)
the procedures for use of the EPD tool are approved by EPD-Norway,
and iii) the process is reviewed annually by an independent third
party verifier. See Appendix G of EPD-Norway's General Programme
Instructions for further information on EPD tools

Verification of EPD tool:

Independent third party verification of the EPD tool, background data
and test-EPD in accordance with EPDNorway's procedures and
guidelines for verification and approval of EPD tools. NEPD73

Third party verifier:

Elisabet Amat, GREENIZE projects

(no signature required)

Owner of the declaration:

AS Terjan
Contact person: Christian Kiyoshi Olsen
Phone: 406 16 331
e-mail: terjan@terjan.no

Manufacturer:

AS Terjan
Ole Deviks vei 16B
0666 Oslo, Norway

Place of production:

AS Terjan

, Denmark

Management system:

Miljøfyrtårn

Organisation no:

839 427 832

Issue date:

02.06.2025

Valid to:

02.06.2030

Year of study:

2024

Comparability:

EPD of construction products may not be comparable if they not
comply with EN 15804 and seen in a building context.

Development and verification of EPD:

The declaration is created using EPD tool lca.tools ver EPD2022.03,
developed by LCA.no. The EPD tool is integrated in the company's
management system, and has been approved by EPD Norway.

Developer of EPD: Pedro Ferreira

Reviewer of company-specific input data and EPD: Børge Heggen
Johansen, Energiråd AS

Approved:



Håkon Hauan, CEO EPD-Norge

Product

Product description:

Lubricant for connecting and installing pipes for the plumbing and building industry.

Product specification

Materials	kg	%
Lubricant	0,24	24,14
Metal - Chromium steel	0,22	22,42
Plastic	0,016	1,64
Propellant gas	0,50	50,71
Rubber	0,010	1,080
Total	1,00	100,00

Packaging	kg	%
Packaging - Cardboard	0,04	100,00
Total incl. packaging	1,04	100,00

Technical data:

For technical description, please visit our website.

Weight per can	Unit
0,33128	kg

Market:

Norway

Reference service life, product

Not relevant for this product.

Reference service life, building

The reference service life of a building is often assumed to be 60 years.

LCA: Calculation rules

Declared unit:

1 kg Silicone Super Glider Spray

Cut-off criteria:

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

Allocation:

The allocation is made in accordance with the provisions of EN 15804. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

Data quality:

Specific data for the product composition are provided by the manufacturer. The data represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on EPDs according to EN 15804 and different LCA databases. The data quality of the raw materials in A1 is presented in the table below.

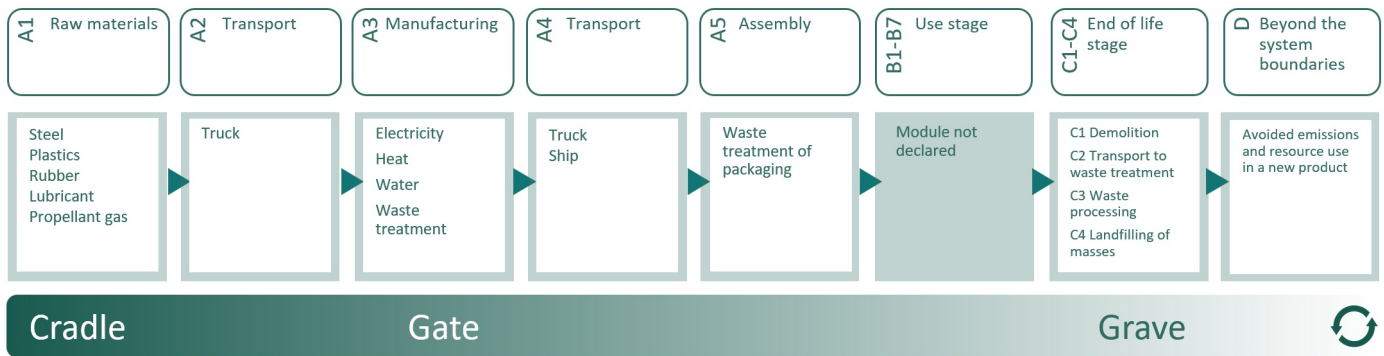
Materials	Source	Data quality	Year
Lubricant	ecoinvent 3.10.1	Database	2023
Metal - Chromium steel	ecoinvent 3.10.1	Database	2023
Packaging - Cardboard	ecoinvent 3.10.1	Database	2023
Plastic	ecoinvent 3.10.1	Database	2023
Propellant gas	ecoinvent 3.10.1	Database	2023
Rubber	ecoinvent 3.10.1	Database	2023

System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Product stage			Construction installation stage		Use stage							End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

System boundary:

The system includes the raw materials and production of the spray can's subcomponents, such as the can itself, the valve, and the actuator, as well as the propellant gas and lubricant (Module A1). It also covers transport to the manufacturing facility (Module A2), product assembly (Module A3), and transport to Norway for distribution (Module A4). Waste treatment of packaging is included in Module A5. The end-of-life scenario (Modules C1–C4 and D) is based on the most likely treatment for spray cans.



Additional technical information:

Not applicable.

LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

- Module A4 accounts for the transportation between Denmark and Norway, including the distribution to the Norwegian market.
- Due to the nature and use of the product, there are no emissions related to the demolition of the product, in module C1.
- Module C2 includes the transportation of the empty cans to waste treatment facilities. The cans contain 5% of propellant gas and lubricant agent.
- Module C3 and C4 covers the waste treatment of empty can. The metal parts are 95% recycled and 5% landfilled, while all other parts are incinerated as hazardous waste.

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Ship, Ferry, Sea (kgkm)	50,0 %	170	0,034	l/tkm	5,78
Truck, over 32 tonnes, EURO 6 (kgkm)	55,0 %	364	0,023	l/tkm	8,37
Assembly (A5)		Unit	Value		
Waste, cardboard and paper, to average treatment (kg) - A5	kg	0,039			
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, over 32 tonnes, EURO 6 (kgkm)	55,0 %	100	0,023	l/tkm	2,30
Waste processing (C3)		Unit	Value		
Waste treatment per kg Hazardous waste, incineration (kg)	kg	0,045			
Waste, tinplate to recycling (kg)	kg	0,21			
Disposal (C4)		Unit	Value		
Landfilling of ashes from incineration of Hazardous waste, process per kg ashes and residues (kg)	kg	0,0086			
Waste, scrap steel, to landfill (kg)	kg	0,011			
Benefits and loads beyond the system boundaries (D)		Unit	Value		
Substitution of electricity (MJ)	MJ	0,000055			
Substitution of thermal energy, district heating (MJ)	MJ	0,00083			
Substitution of primary steel with net scrap (kg)	kg	0,086			

LCA: Results

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

Environmental impact										
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D	
GWP-total	kg CO ₂ -eq	2,96E+00	6,02E-02	6,06E-02	0	3,11E-03	1,34E-01	3,99E-03	-1,10E-01	
GWP-fossil	kg CO ₂ -eq	3,01E+00	6,02E-02	6,79E-04	0	3,10E-03	1,19E-01	3,99E-03	-1,10E-01	
GWP-biogenic	kg CO ₂ -eq	-5,53E-02	2,54E-05	5,99E-02	0	2,01E-06	1,50E-02	1,58E-06	-6,06E-05	
GWP-luluc	kg CO ₂ -eq	3,65E-03	2,55E-05	2,34E-07	0	1,21E-06	2,34E-05	4,22E-07	-4,94E-05	
ODP	kg CFC11 -eq	9,13E-08	1,11E-09	1,40E-11	0	6,00E-11	1,14E-09	1,91E-10	-3,69E-07	
AP	mol H+ -eq	1,40E-02	7,18E-04	2,32E-06	0	7,32E-06	1,46E-04	8,31E-06	-5,46E-04	
EP-FreshWater	kg P -eq	7,78E-04	3,34E-06	4,66E-08	0	2,17E-07	3,49E-05	4,45E-08	-6,76E-06	
EP-Marine	kg N -eq	2,55E-03	1,82E-04	8,43E-07	0	1,92E-06	4,13E-05	2,23E-06	-1,13E-04	
EP-Terrestrial	mol N -eq	2,67E-02	2,01E-03	8,81E-06	0	2,08E-05	3,48E-04	2,59E-05	-1,15E-03	
POCP	kg NMVOC -eq	1,90E-02	6,33E-04	3,52E-06	0	1,27E-05	1,42E-04	7,41E-06	-5,50E-04	
ADP-minerals&metals ¹	kg Sb-eq	7,15E-05	1,31E-07	2,21E-09	0	8,88E-09	4,26E-07	6,76E-09	-1,89E-06	
ADP-fossil ¹	MJ	7,09E+01	8,45E-01	9,28E-03	0	4,66E-02	5,79E-01	2,02E-02	-9,24E-01	
WDP ¹	m ³	6,66E-01	3,67E-03	1,31E-04	0	2,39E-04	8,32E-03	4,68E-01	5,69E+00	

GWP-total = Global Warming Potential total; GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption







"Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009"

*INA Indicator Not Assessed

1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

Remarks to environmental impacts

Not applicable.

Additional environmental impact indicators										
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D	
 PM	Disease incidence	1,76E-07	4,31E-09	5,20E-11	0	3,00E-10	1,78E-09	6,50E-11	-9,12E-09	
 IRP ²	kgBq U235 -eq	2,24E-01	8,13E-04	1,24E-05	0	5,62E-05	3,33E-03	1,03E-04	3,94E-04	
 ETP-fw ¹	CTUe	8,94E+00	8,75E-02	3,42E-03	0	5,49E-03	1,75E+00	5,33E-02	-6,12E+00	
 HTP-c ¹	CTUh	2,19E-09	0,00E+00	0,00E+00	0	0,00E+00	1,36E-10	3,00E-12	-5,28E-10	
 HTP-nc ¹	CTUh	4,00E-08	3,78E-10	9,00E-12	0	3,00E-11	5,02E-10	1,05E-10	1,15E-08	
 SQP ¹	dimensionless	1,36E+01	6,11E-01	5,45E-03	0	4,69E-02	2,97E-01	5,57E-02	-6,96E-02	

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Potential Soil Quality Index (dimensionless)

"Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009"

*INA Indicator Not Assessed

1. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator
2. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Resource use										
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D	
PERE	MJ	5,73E+00	1,13E-02	1,70E-04	0	7,59E-04	3,88E-02	2,26E-03	-7,54E-02	
PERM	MJ	5,03E-01	0,00E+00	-5,03E-01	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
PERT	MJ	6,24E+00	1,13E-02	-5,03E-01	0	7,59E-04	3,88E-02	2,26E-03	-7,54E-02	
PENRE	MJ	3,70E+01	8,45E-01	1,72E-02	0	4,66E-02	5,79E-01	2,02E-02	-9,24E-01	
PENRM	MJ	3,39E+01	0,00E+00	-1,64E-03	0	0,00E+00	-8,90E+00	0,00E+00	0,00E+00	
PENRT	MJ	7,09E+01	8,45E-01	1,55E-02	0	4,66E-02	-8,32E+00	2,02E-02	-9,24E-01	
SM	kg	1,84E-01	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
RSF	MJ	4,46E-03	3,45E-06	5,90E-08	0	2,54E-07	8,71E-06	4,07E-05	3,96E-03	
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	4,02E-04	1,15E-01	
FW	m ³	2,30E-02	1,03E-04	2,60E-06	0	6,88E-06	2,27E-04	3,45E-05	-2,32E-04	

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary materials; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

"Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009"

*INA Indicator Not Assessed

End of life - Waste										
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D	
HWD	kg	1,41E+00	1,16E-03	2,94E-05	0	6,75E-05	1,98E-02	2,18E-06	-5,71E-04	
NHWD	kg	4,91E+00	2,12E-02	1,57E-03	0	1,35E-03	9,25E-02	9,00E-03	-4,49E-02	
RWD	kg	4,16E-02	0,00E+00	3,08E-09	0	0,00E+00	0,00E+00	0,00E+00	3,02E-07	

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

*Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3} = 0,009$

*INA Indicator Not Assessed

End of life - Output flow										
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D	
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
MFR	kg	5,91E-03	0,00E+00	3,81E-02	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
MER	kg	6,52E-03	0,00E+00	1,50E-11	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
EEE	MJ	1,36E-04	0,00E+00	2,09E-07	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
EET	MJ	8,87E-05	0,00E+00	2,04E-07	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; EET = Exported energy thermal

*Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3} = 0,009$

*INA Indicator Not Assessed

Biogenic Carbon Content		
Indicator	Unit	At the factory gate
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in accompanying packaging	kg C	1,63E-02

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂

Additional requirements

Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Source	Amount	Unit
Electricity, medium voltage, with guarantee of origin (01.01.2023–31.12.2025) (kWh) - Denmark	ecoinvent 3.10.1	55,72	g CO ₂ -eq/kWh

Dangerous substances

The product contains no substances given by the REACH Candidate list.

Indoor environment

Not applicable.






Additional Environmental Information

Additional environmental impact indicators required in NPCR Part A for construction products									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWPIOBC	kg CO ₂ -eq	3,02E+00	6,02E-02	6,79E-04	0	3,11E-03	1,23E-01	3,99E-03	-1,64E-01

GWPI-IOBC: Global warming potential calculated according to the principle of instantaneous oxidation. In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

Bibliography

ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and procedures.
 ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines.
 EN 15804:2012+A2:2019 Environmental product declaration - Core rules for the product category of construction products.
 ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products.
 ecoinvent v3, (2019) Allocation, cut-off by classification, Swiss Centre of Life Cycle Inventories.
 Iversen et al., (2021) eEPD v2021.09 Background information for EPD generator tool system verification, LCA.no Report number: 07.21
 Graafland, J. and Ruttenborg, M. (2023) EPD generator for NPCR009:2021, Part B for Technical - Chemical products (non-cement based products), Background information for EPD generator application and LCA data, LCA.no report number: 12.23.
 NPCR Part A: Construction products and services. Ver. 2.0, 24.03.2021 EPD Norway.
 NPCR 009 Part B for Technical - Chemical products for building and construction industry, Ver. 3.0, 06.10.2021, EPD Norway.

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