2025 9 19

88

91371621MABW5UA769

18854325398
ywdgqgb@sdcxjt.com

1t

ISO14040:2006 ISO14044:2006

1t

1

2

SimaPro9.5.0.0 Ecoinvent 3.9 allocation, c

Acidification		mol H^+ eq	1.58E+02
Particulate matter		disease inc.	1.74E-03
Eutrophication	marine	kg N eq	2.47E+01
	freshwater	kg P eq	8.53E+00
	terrestrial	mol N eq	2.59E+02
Ozone depletion		kg CFC11 eq	2.72E-04
Photochemical ozone formation		kg NMVOC eq	8.10E+01
Resource use	fossils	MJ	2.33E+05
	minerals and metals	kg Sb eq	1.34E+00
Water use		m^3	3.77E+03

3

1t

LCA

1)

2)

3)



1 .....- 1 -

1.1 .....- 1 -

1.1.1 .....- 1 -

1.1.2 .....- 1 -

1.1.3 .....- 1 -

1.1.4 .....- 2 -

1.2 .....- 2 -

1.2.1 .....- 2 -

1.2.2 .....- 3 -

1.2.3 .....- 3 -

1.2.4 .....- 4 -

1.2.5 .....- 4 -

1.2.6 .....- 5 -

1.2.7 .....- 6 -

2 .....- 6 -

2.1 .....- 7 -

2.2 .....- 7 -

3 .....- 8 -

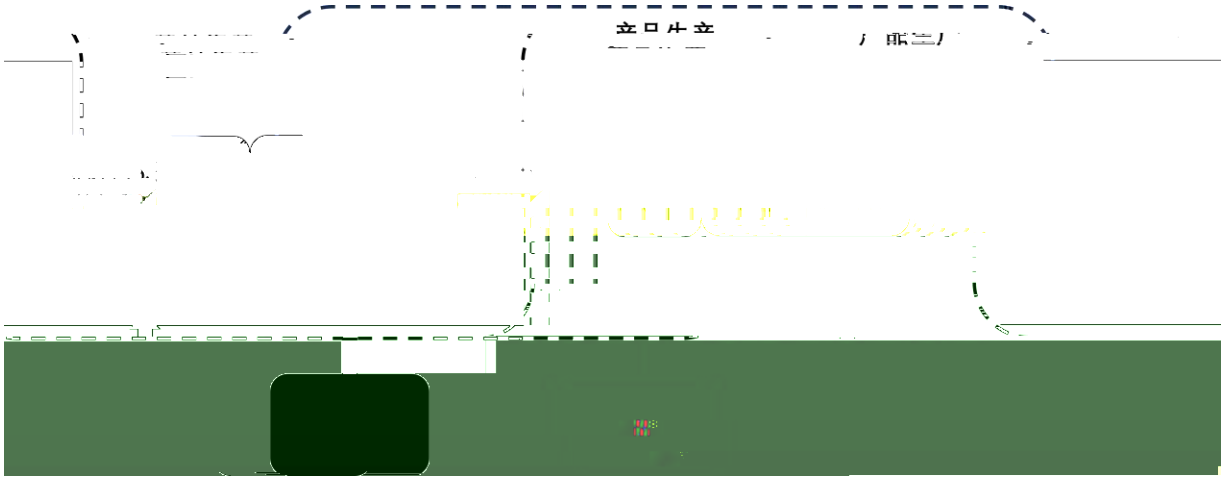
3.1 Ç ţ n. * Ƨ

4.3 .....- 16 -
5 .....- 17 -
5.1 .....- 17 -
5.2 .....- 17 -
5.3 .....- 18 -

1.1.1 ،

1t

v



2 1t

1.2.2

1%

0.1%

5%

1.2.3

a. b.

2020

7 1 2024 a

خه

		>50%	<<50% >50%		
	1.00	1.02	1.05	1.10	1.20
U3	3	6	10	15	15
	1.00	1.03	1.10	1.20	1.50
U4					
	1.00	1.01	1.02	1.05	1.10
U5					
		1.05	1.20	1.50	2.00
U6	>100,	>20	>10,	>=3	
	1.00	1.02	1.05	1.10	1.20

1.2.7

SimaPro 9.5.0.0

EF 3.1 normalization and weighting set LCA

Ecoinvent

“ ” “ ”

2-1

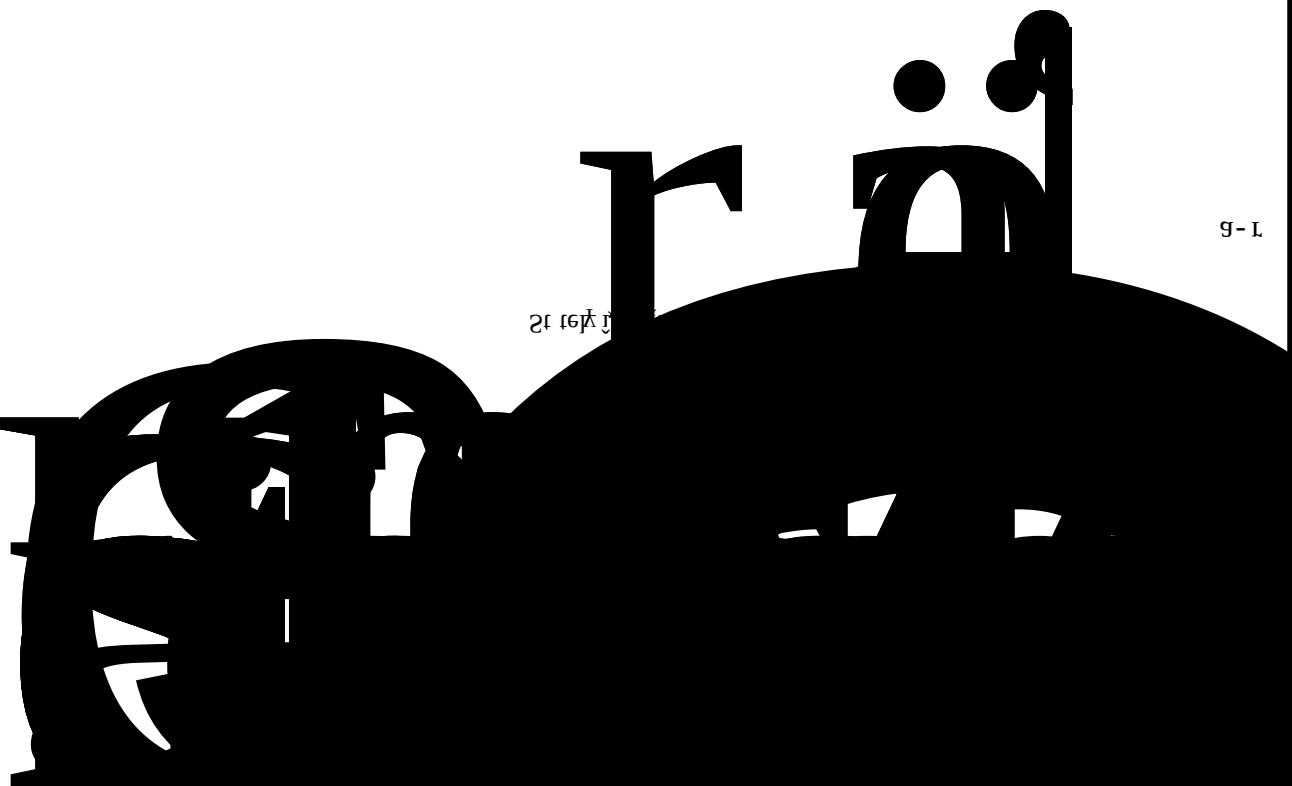
		30481.69	t
		7469.12	t
		3704.87	t
		651.04	t
		961.92	t
		65.30	t
	PE	10.66	t
	16-32t	39856724.20	t*km
	7.5-16t	56927.54	t*km
		8248562.00	KWh
		7059.00	m³
		4.00	t
	VOC	0.54	t

Aluminium alloy, metal matrix composite {RoW}| aluminium alloy production, Metallic Matrix Composite | Cut-off, U

Steel, low-alloyed {RoW}| steel production, converter, low-alloyed | Cut-off, U

Copper, cathode {GLO}| electrorefining of copper, anode | Cut-off, U

Ecoi
t3.9
alloc
, cut
b
class
tion-



and weighting set 1t

3-1 1t LCA

Climate change	Biogenic	kg CO_2 eq	2.79E+01
	Fossil		2.27E+04
	Land use and LU change		

3-2 1t

-

- - - - - - -

	Acidification	Climate change	Climate change - Biogenic	Climate change - Fossil	Climate change - Land use and LU change	Particulate matter	Eutrophication, marine	Eutrophication, freshwater	Eutrophication, terrestrial	Ozone depletion	Photochemical ozone formation	Resource use, fossils	Resource use, minerals and metals	Water use
	1.13E+02	1.76E+04	2.15E+01	1.75E+04	4.20E+01	1.33E-03	1.89E+01	6.12E+00	1.96E+02	2.10E-04	6.10E+01	1.79E+05	9.07E-01	2.78E+03
	2.77E+01	4.31E+03	5.28E+00	4.29E+03	1.03E+01	3.27E-04	4.63E+00	1.50E+00	4.81E+01	5.15E-05	1.50E+01	4.39E+04	2.22E-01	6.81E+02
	1.02E+00	2.33E+02	1.46E-01	2.33E+02	1.30E-01	1.93E-05	2.23E-01	1.08E-01	2.37E+00	4.25E-06	1.11E+00	2.36E+03	1.92E-03	3.08E+01
	1.48E+01	1.71E+02	6.90E-01	1.70E+02	3.44E-01	2.94E-05	5.69E-01	7.38E-01	7.85E+00	1.93E-06	2.47E+00	2.11E+03	2.08E-01	2.32E+02
	2.29E-02	2.96E+00	1.02E-02	2.90E+00	5.11E-02	1.27E-06	8.32E-03	1.40E-03	8.88E-02	3.04E-08	3.54E-02	3.65E+01	5.08E-06	4.25E-01
	9.49E-03	1.38E+00	1.02E-01	1.27E+00	6.42E-03	1.49E-07	2.06E-03	4.09E-04	2.31E-02	8.08E-09	7.87E-03	1.27E+01	3.05E-05	2.23E-01
PE	4.14E-03	9.49E-01	1.66E-03	9.46E-01	9.08E-04	4.34E-08	8.40E-04	2.41E-04	8.65E-03	5.42E-09	4.01E-03	2.61E+01	3.20E-06	3.67E-01
16-32t	5.36E-01	2.17E+02	5.73E-02	2.16E+02	1.14E-01	1.61E-05	1.31E-01	1.77E-02	1.34E+00	3.41E-06	7.15E-01	3.05E+03	7.04E-04	1.36E+01
7.5-16t	9.62E-04	3.97E-01	1.06E-04	3.97E-01	2.01E-04	2.54E-08	2.29E-04	3.19E-05	2.35E-03	6.08E-09	1.25E-03	5.49E+00	1.25E-06	2.29E-02
	1.20E+00	2.27E+02	3.26E-02	2.27E+02	8.94E-02	1.68E-05	2.55E-01	4.10E-02	2.72E+00	4.08E-07	7.17E-01	2.20E+03	1.45E-04	2.50E+01
	1.33E-03	2.53E-01	3.98E-04	2.52E-01	3.33E-04	1.69E-08	2.71E-04	9.11E-05	2.77E-03	4.90E-08	8.92E-04	3.02E+00	1.15E-06	8.31E+00
	5.80E-04	4.59E-01	3.06E-05	4.59E-01	2.79E-05	4.39E-09	1.05E-04	4.50E-06	9.62E-04	6.50E-09	8.77E-04	6.30E+00	6.31E-08	8.77E-03

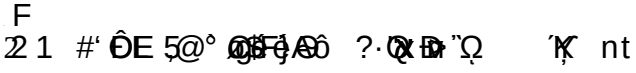
[redacted]

0.00E [redacted] 29E- [redacted] 0.0 [redacted] 00 [redacted] 0.0 [redacted] 0 [redacted] 0 [redacted] +(

32t														
7.5-16t	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	0.76%	1.00%	0.12%	1.00%	0.17%	0.96%	1.03%	0.48%	1.05%	0.15%	0.89%	0.95%	0.01%	0.66%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%	0.00%	0.22%
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
VOC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00%	0.00%	0.00%

4.1.1

´ 1



´ 3

Ecoinvent Ecoinvent

4.1.2

SimaPro9.5.0.0

LCA-

4-1 LCA

				95%
Acidification		mol H^+ eq	1.57E+02	[1.03E+01,1.29E+02]
Climate change	Total	kg CO_2 eq	2.27E+04	[9.90E+00,1.89E+04]
	Biogenic	kg CO_2 eq	2.78E+01	[1.14E+01,2.22E+01]
	Fossil	kg CO_2 eq	2.26E+04	[9.91E+00,1.88E+04]
	Land use and LU change	kg CO_2 eq	5.23E+01	[1.36E+01,4.03E+01]
Eutrophication	marine	kg N eq	7.48E+00	[4.54E+01,3.62E+00]
	freshwater	kg P eq	2.44E+01	[1.12E+01,2.01E+01]
	terrestrial	mol N eq	2.56E+02	[1.14E+01,2.09E+02]
Ozone depletion		kg CFC11 eq	2.64E-04	[2.06E+01,1.90E-04]
Particulate matter		disease inc.	1.59E-03	[3.47E+01,1.05

4-2

		/	-10%	+10%	-10%	+10%
Acidification		mol H^+ eq	1.47E+02	1.69E+02	1.55E+02	1.55E+02
Climate change	Total	kg CO_2 eq	2.10E+04	2.45E+04	2.23E+04	2.23E+04
	Biogenic	kg CO_2 eq	2.57E+01	3.00E+01	2.73E+01	2.73E+01
	Fossil	kg CO_2 eq	2.09E+04	2.44E+04	2.22E+04	2.22E+04
	Land use and LU change	kg CO_2 eq	4.88E+01	5.72E+01	5.20E+01	5.20E+01
Particulate matter		disease inc.	1.61E-03	1.88E-03	1.71E-03	1.71E-03
Eutrophication	marine	kg N eq	2.28E+01	2.66E+01	2.43E+01	2.43E+01
	freshwater	kg P eq	7.92E+00	9.14E+00	8.38E+00	8.38E+00
	terrestrial	mol N eq	2.39E+02	2.78E+02	2.54E+02	2.54E+02
Ozone depletion		kg CFC11 eq	2.51E-04	2.93E-04	2.67E-04	2.67E-04
Photochemical ozone formation		kg NMVOC eq	7.49E+01	8.71E+01	7.95E+01	7.95E+01
		MJ	2.15E+05	2.51E+05	2.28E+05	2.28E+05

Resource use	fossils					
	minerals and metals	kg Sb eq	1.25E+00	1.43E+00	1.32E+00	1.32E+00
Water use		m^3	3.49E+03	4.05E+03	3.70E+03	3.70E+03

1t

3

:

:

1

2

;

3