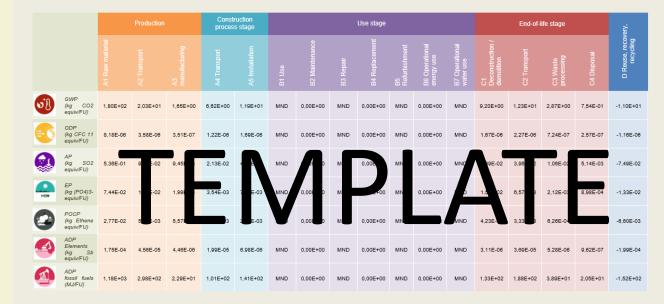
## B-EPD

#### Dieter De Lathauwer – coördinator



Federal Public Service of Health and Environment, Belgium

#### POTENTIAL ENVIRONMENTAL IMPACTS PER REFERENCE FLOW



GWP = Global Warming Potential (Climate Change); ODP = Ozone Depletion Potential; AP = Acidification Potential for Soil and Water; EP = Eutrophication Potential; POCP = Photochemical Ozone Creation; ADPE = Abiotic Depletion Potential – Elements; ADPF = Abiotic Depletion Potential – Fossil Fuels;

SCENARIOAS AND ADDITIONAL TECHNICAL INFORMATION



-HAW MAL									
his modulo take	a into account 1 and cracity which	he setrection as	nd processing of em to the studied	Outerstation description of a data mediana and consul- during the local	POL:	ent. Derinakon			
				VIDCALS		IN COP WY	Harthete	-	2.81
2 - TRANSPE No raw materials	ans transporte			che pulling pertre concessing personer às products was constitutions		no 13 kg L museriek	palier 0,1011		нь-ка 0,08257 нд
4 - 110ANSP4		Des taken	Trans 15:15 mm	Cuput Par Apachera y to Anot of the presence a curbing the of canadian resultion for the	CALLER CO	Of is levels independent inscripting	015-12-16 42% 1756-161 42% 161	m	S'Eclarable OP)s regionentiaes MSs. mayoleg
teneumyster of antois or vehicle type used for	0,2551 direct /	0,250.1 denati./	0,105,2561 dieut/hrt	Apeched by to	uniti			_	
TRALLOUT CIRCLAND		-		AND/AT AT, AN INCOME.		benakoe			
	190	25	25	Charles	10	terrusion		T	
Lageony senses featuring amony acumal	5%	\$25	80%	B-use st					
actor startersy tor range const products	Loines	Emisen	Emirona .	The consignation of the constant of the consta	minimizin	g pollution on the loc	no main aton and	tanànca 5 applica	or cleaning dion, the us
				may bonefit 6	FORT & FEG	alar maris	manco di	CEATER	p (riceing a
In B-PCR provi the building site eveng. The B-P bio coment box of the B-PCR. T	for canos who CR provides so rds are categor to following to	to specific data enario's for the und as 'loose p report staps ap		The default of levels default of 20 here the level of the levels of the levels default of 20 here the levels of the levels	ACONARIO (	arovided ib as and of	y the G- Ne scen	PCR, 5 ano. Th	ing 100% LB-PCR a
the building site eveng. The B-PA Bris connent box of the B-PCR. T • 40% drs 16-32 to larry 16- larry 16-	See dolard trans for cases who CR provides so red are categor to toboxing to city to the com n lony (scorn) 12 motic ton, E 2 motic ton, E	eport econarios is specific data crianicis for the word as lacosis p neport stops ap traction kilo ovi ent econd. Tr LIRIOS (PEERS) I LIRIOS (Cus ett	for the transport on transport are tille cycle stage, motivatel in twble poly: or 100 km with a sereport, freight, namport, freight, (LT).	C: Enc or The default is settil has to provides defa 	ACOMARIO ( econumical sult scornar on with a to souting for with a	inovided to as and of los far train 16-32 ton plant/orasil	y the B- life scen report of t EURO 5 wr/tolkc n EURO	PCR, 5 ano. Th waitin w i kery fr tion points 1.5 long	sing 100% s B-PCR a tech and tre domole
In B-PCR provision the B-PCR provision the backforg set severag The B-P Ber convent box at the B-PCR. T • 40% den 16-32 to lony 16- lony 16- lony 16- lony 16-	fes dolaut trans for cales who CR provides so nb toboxing tra stip to the com n long (scolin) 12 matric ton, E s supplier over	eport econences or specific data invanción for their and as tocses p neport stopic ap fertaction kito over ent record: "Tr UROS (PEER) to UROS (Curi with a 100 km with a	for the transport on transport are life cycle straps, poductir in sable soly: or 100 km with a sengent, finight, namport, finight, UT) 16-32 ton lany	C: Ener or leaded to provides data to star 9 30 k star 9 50 k plan	ACOMING IN BOOM WITH A TO BOOTING IN WITH A TO BOOTING IN WITH A BOOMING	provident is as end-of- ros for train 16-32 ton plant/crust to filection p collection p	y file B- ble scen sport of r EURO 5 ser/collec n EURO coint to le	PCR, 5 ano. Th waitin w i kery fr tion points 1.5 long	sing 100% s B-PCR a tech and tre domole
Hartin Serie In B-PCR provident the banking sets and the B-PCR. In a 42% des 15-32 to kerry 16- kery 16- 00% to 1 (incolated tas, ELP	fein derlauft trach für cantes white CR periveden so dis and calegoer he tolloasing ta schy to the com n. kony (scottin, 12 metric lan, E 2 metric lan, E a sapplier over nt record: Train 00 (45278)) tan	eport scenarios re specific data enario's for the land as 'horse p enport steps ap fraction site ow ont scend. To LIROS (Cut off 100 LIROS (Cut off 100 km with a aport, freight, is sport, freight, is	for the transport on transport are tille cycle stage, motivatel in twble poly: or 100 km with a sereport, freight, namport, freight, (LT).	C: Ever or The default is benefit has be provides defa • 30 k • 90 i plan	ACOMING IN ACOMING IN ACOMINICA ACOMINICA ACOMINICA ACOMINICA ACOMINICA ACOMINICA ACOMINICA ACOMINICA ACOMINICA ACOMINICA ACOMINICA ACOMI	arovided to as and of tos far toe 16-32 ton plant/cual s 16-32 to	y file B- ble scen sport of r EURO 5 ser/collec n EURO coint to le	PCR, 5 ans. Th waters w i tany point i tany point i 5 tany enthil.	ing 100% B-PCR a sch and re dansalt fram aart
Harten fean In B-PCR prove the backdrop site sering The B-P bits connent loas at the B-PCR. T • 40% dim 16-32 to larry 16- larry 16- larry 16- larry 16- larry 16- larry 16- larry 16- bits, ELP • 85% of suppler	See deviault train the cases who CR provides who CR provides who is talkpaing to city to the com- ine talkpaing to city (costro) 12 metric ton, E 12 metric ton, E 12 metric ton, E 12 metric ton, E 12 metric ton, E 10 di 902/11 tone KOS   Cost-off, U these 80% as	eport scorrwise to specific data invarios for these invarios for these investor stepse ap feastion site ow investor stepse ap feastion site ow investor stepse united stepse (spect, feegite, le towneyth a towneyth a	for the transport on transport and life cyclic stage. workcore in table object or 100 km with a sengost, finight, naresport, finight, naresport, finight, naresport, finight, naresport, finight, aresport, finight, aresport, finight, aresport, finight, aresport, finight, aresport, finight, aresport, finight, aresport, finight, aresport, finight, areas, finished the sengent file of the sengent file of the sengent	C: Ener or leaded to provides data to star 9 30 k star 9 50 k plan	ACOMING IN BOOM WITH A TO BOOTING IN WITH A TO BOOTING IN WITH A BOOMING	provident is as end-of- ros for train 16-32 ton plant/crust to filection p collection p	y the B- ble scen report of r EURO 5 serviculies n EURO n EURO serviculies	PCR, 5 ars. Th writte w i lony fo ton poin 1.5 tony of protei 5 protei 6 protei 6 protei 6 protei 6 protei 6 protei 6 protei 7	ing 100% I B-PCR a Not and I from sort
n B-PCR screek the barborg size energ. The B-P bis convert box d the B-PCR. T • 42% dne 65.32 to lany 16- lany	Sen deletat train for cases who cR provides in the toleasing tak city to the com in toring the com in terms (incertor 22 matrix tan, E 22 matrix tan, E 23 matrix tan, E 23 matrix tan, E 23 matrix tan, 24 matrix tan, 25 matrix in tappier over in second: Train 105 (PERE) tak 055 (PERE) tak	eport scenarios so specific data invancio for the inod as 'toose p inport steps ap foration site ow ont succed. Th uthos precing is uthos precing is uthos precing is uthos precing is to a set with a sport, freight, is aport, freight, is aport, freight, is	for the transport on transport and life cycle stage. producer in table port of 100 km with a sengoot, freight, namesport, freight, 10 32 ton lany any 56-32 mesis any 56-32 mesis any 56-32 mesis	C: Even or Interdist has its provides detail 9 30 h 9 50 h 9 for provides detail 9 50 h 9 for provides detail 9 for 10 for provides detail 9 for provides detail 9 for provides detail 9 for provides detail 9 for 10 fo	ELEPE accountion and sub- action with a to sorting level with a strongeneric megonicitie Feat	orovided b as end of sea for the 95-32 too plans/orusit 16-32 to plans/orusit 16-32 too plans/orusit	y SNe B- ble scent report of r EURO servication n EURO cont to la separat separat	PCR, b arro. Th writtle w i kony fe ton poli 5 iony ortfil.	ing 100% B-PCR a sch ant re demoti from aort re reserve screwe
Harten See In B-PCR provid the building site every The B-P the convert box at the B-PCR. The 6-90% den 16-90% den 16-90% to 16-90% to	fee deleast train for cases who off provides so off an categor in total and categor in total and categor in total and the 22 matrix tan, E 22 matrix tan, E 22 matrix tan, E 22 matrix tan, E 22 matrix tan, Did (#D27) tan Did (#D27) tan	eport scenarios to specific datas imano's for the word as 'torese p engort staps ap traction site own unit's second. "It utitod pitzing) utitod pitzing) utitod pitzing) utitod pitzing) tuttod pitzing both respits to apport, freight, is apport, freight, is apport, freight, is tamport, freight, is tamport, freight, is tamport, freight, is tamport, freight, is tamesported on	for the transport on transport and life cycle straps, nordszor in stable opti- on 100 hors with a amoport, maptel, (U) 10 - 32 ton lany say 16-32 make war 16 - 32 make and 16 - 32 make	C: Even or Interditi has its proveks data 30 k see 9 50 k star resultation Type of orthomore a Type of of of of of of of of of of of of of o	FLIPE Accession and scores of with a to sorting with with a tricnal-tori memory for the sorting the sorting toring to the tricnal-tori toring to the toring toring to the toring to the	interviduel to ass end of tos fur train 16-32 ton plantional to 16-32 tos tolaction p totage to prome n.ter plante	y SN4 B- ble served in EURO 5 served in served	PCR, 5 aris. Th wrates w larry to tarry point 5 larry ed protest (spec) starry ed protest (spec)	ing 100% B-PCR a sch ant re demoti from aort re reserve screwe
In B-PCR provide the bailding an energy The B-P to carrier to a 40% day 1 the B-PCR. T 40% day 1 the B-PCR. T 40% day 1 the B-PCR. T 40% day 1 the B-PCR. T 40% day 1 the B-PCR. 1 the B-PC	fee dolaad trait for calces what for calcego to an exception with are calcego in to be an exception and the communication of the commun	eport scenarios so specific data enancies for the und as loose p report steps as loose frequencies of the unitod present unitod present unito	for the transport are to transport are tile cycles strags options of the strage option of too an work a arrangent, insight, U.Y. 18-32 too tany arrangent angles, up to 32 marks arrangent angles, arrangent angles, arrangent angles, 18-32 too tany 18-32 marks arrangent angles, 18-32 marks arrangles, 1	C: Even up lendfil has da anoutes da son son son son son son son son son son	ELPE account of and used all occurs to sorting for with a to sorting for with a for action for acti	intervided is son fur train 16-32 ton paratround in 16-32 to paratround interview intervinterview interview interview intervinterview in	y SN4 B- ble scan rigert of t surful S surful S surful S surful S sufficient to M sufficient n Out S0%	PCR, b aris. Th writte w l kery fe tion point of a protect organity account account account account account account	ing 100% B-PCR a tech arc fram sort fa names
Altable face in B-PCR provide the building at energy The B-P building at energy The B-P building at the B-PCR T 40% at 40% at 40	fee dolaad trait for calces what for calcego to an exception with are calcego in to be an exception and the communication of the commun	lepart inconvertises in specific data manafore for the land and house p induction kills on entry second: To URIOS (SELER) ( URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) (SELE	for the transport an it is systematic straps, on some particle straps, some transport, insight, some total an with a arrangent, finishild, UT 16-32 ton tany any 16-32 means any 16-32 m	C: Else tor Inectify here to prove the default 2006 2007 2007 2007 2007 2007 2007 2007	LIPE accounts of eners used will scottar or with a to sorting with with a to sorting formers from with formers	intervided is son fur train 16-32 ton paratround in 16-32 to paratround interview intervinterview interview interview intervinterview in	y SN4 B- ble scan rigert of t surful S surful S surful S surful S sufficient to M sufficient n Out S0%	PCR, 5 ano. Th writtle w lony fo ton point 1.5 lony offil.	ing 100% B-PCR a tech and fram aori fram aori re- reasonary senate accounts
Altable face in B-PCR provide the building at energy The B-P building at energy The B-P building at the B-PCR T 40% at 40% at 40	See dolarit train for zames what for zames what RC provides us calego to due to calego the labourg to the core in calego to the core in supplier over in supplier over in scards "Tanks" taken Col (Ref Lines Col (Cale at ) these RDS's is to coreination of scards. The scards "Tanks" taken Col (Cale at ) these RDS's is to core at the scards "Tanks" the scards "Tanks" taken Col (REFR) the SCS (REFR	lepart inconvertises in specific data manafore for the land and house p induction kills on entry second: To URIOS (SELER) ( URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) URIOS) (SELER) (SELE	for the transport are to transport are tile cycles strags options of the strage option of too an work a arrangent, insight, U.Y. 18-32 too tany arrangent angles, up to 32 marks arrangent angles, arrangent angles, arrangent angles, 18-32 too tany 18-32 marks arrangent angles, 18-32 marks arrangles, 1	C: Electron Insertion Anno 20 k store of the set of the set store of store of control of the set of the set of the set of the set set of the set set set of the set set set set set set set	ALPHE ALEPHENE	enswided b as end-of- costerring 16-32 ten plasticruit a 16-32 ten plasticruit	y SN4 B- ble scan rigert of t surful S surful S surful S surful S sufficient to M sufficient n Out S0%	PCR, b aris, Th writte w is long to ton point is fany endfil.	ing 500% B-PCR a Schanc reduced fram son re- scale accessor acceso
<ul> <li>It are fast</li> <li>It are provided a provided that is a start of the second that the provided area of the second transmittic term of the second transmittic term of the second term of term of</li></ul>	San distant trans- for calculations when the calculation of the com- ords are calculated by the tablesing ta- tion calculation calculated calculations are calculated to calculate calculated calculated calculated calculated calculated calculated calculated calculated calculated calculat	sport sconvertes in specific data manufactor for the land an losses p intention with one and an second. The united peticipal URING (scond to URING) (scond to transported on a site with a sport, frequer, to a sport, frequer, to	for the transport are to transport are tile cycles strags options of the strage option of too an work a arrangent, insight, U.Y. 18-32 too tany arrangent angles, up to 32 marks arrangent angles, arrangent angles, arrangent angles, 18-32 too tany 18-32 marks arrangent angles, 18-32 marks arrangles, 1	C: Exp cor Interdistant in provide data interdistant in provide data interdistant	LIPE Accession of a sector and a sector and a sector and a sector and a sector and a sector and a sector a sect	enswided b as end-of- costerring 16-32 ten plasticruit a 16-32 ten plasticruit	y the B- ile scat report of v EURO 5 solution n EURO 5 solution n Solution n Solution n Solution n Solution sol	PCR, 5 ano. Th writtle w lony fo ton point 1.5 lony offil.	ing 100% B-PCR a tech and fram aori fram aori re- reasonary senate accounts
<ul> <li>It are fast</li> <li>It are provided a provided that is a start of the second that the provided area of the second transmittic term of the second transmittic term of the second term of term of</li></ul>	San distant trans- for calculations when the calculation of the com- ords are calculated by the tablesing ta- tion calculation calculated calculations are calculated to calculate calculated calculated calculated calculated calculated calculated calculated calculated calculated calculat	sport sconvertes in specific data manufactor for the land an losses p intention with one and an second. The united peticipal URING (scond to URING) (scond to transported on a site with a sport, frequer, to a sport, frequer, to	for the transport are to transport are tile cycles strags options of the strage option of too an work a arrangent, insight, U.Y. 18-32 too tany arrangent angles, up to 32 marks arrangent angles, arrangent angles, arrangent angles, 18-32 too tany 18-32 marks arrangent angles, 18-32 marks arrangles, 1	C: Exp cor Interdistant in provide data interdistant in provide data interdistant	ALPEC ALEPEC I ALEPECTURE A	antovided b ass and of cos fair that plassicities plassic	y the B- ile scat report of v EURO 5 solution n EURO 5 solution n Solution n Solution n Solution n Solution sol	POR, b ano. Th toon point of toon point of toon point of toon point a summer score re- re- score re- re- score re- re- score re- re- score re- re- score re- re- re- re- re- re- re- re- re- re-	ing 100% B-PCR a lich arc or derecks from acrit re- receiver acritic from acrit re- receiver acritic from acrit re- receiver acritic from acritic from acritic fr
In B-PCR provide the balance form the B-PCR provide the balance form regression of the B-PCR to	In default trans- for cases where an exception of the cases where are cases of the sec cases of the sec of the sec cases of the sec cases of the sec of the sec cases of the sec cases of the sec of the sec cases of the sec cases of the sec cases of the sec of the sec cases of the	port iconverse in specific data is specific data in specific data india "baces to and a "baces to any and a "back india "back to a sets with a specific inspiri, is apport, hinght, is apport, hinght, is a prot, hinght, is apport, hinght, is apport, hinght, is a	for the learnport as beaningshi and production of the production in table optimized in table optimized in table optimized in table and the second sec	C: Exer or Interdet has to provide data () 2010 () 201	ELPC ACCONSIDE ACCON	antovided b ass and of cos fair that plassicities plassic	y the B- ile scat report of v EURO 5 solution n EURO 5 solution n Solution n Solution n Solution n Solution sol	PCR, b wester kory te protect protect a server reserver r	Annual States
In B-PCR provident from the barPCR provident the basiling an event The B-PCR provident the content basility and the second second second second term (16- basility) term (16- term (16- ter	In default trans- for cases who are calling- the cases who are calling- the tablewing to active the case of the tablewing to a case of the case of the tablewing to a supplementary (cases) and a supplementary (cases)	port scenarios e najocific dans enarcis for the und as "loces" proport indication allo our undoos processi undoos processi undoos processi undoos processi transport, freight, is "transport, freight,	for the inareact is unareact in a localization of the barry of the source of the sourc	C: Exp con The default is provided with a so to provide the provided of the second of the provided of	ELPC ACCONSISTS	Indevided 1 as and of sos fairthis 19-32 too plactorush tobaction placto	y the B- ile scat report of v EURO 5 solution n EURO 5 solution n Solution n Solution n Solution n Solution sol	PCR, b swistlaw long th protein arming at any d protein a scient a arming at arming a a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a armin a a armin a armin a a a a a a a a a a a a a a a a a a a	sing 500% B-Park In B-Park In derneit E Fran auf Instructure Instr
In B-PCR provident the B-PCR provident the subtrangian server. The B-PCR server. The B-PC bits convert base was an experiment and the B-PC bits of the B-PCR bits of the B-PCR	In default trans- for cases who are callogo the tablewing to active the second second in the second second second in the second second second second a sequence of the second second as a sequence that a sequence that the second second second as a second. These COS (Ed. 4-01, U) these COS's is to construction COS (Ed. 4-01, U) these COS's is to construct to the cost of the second COS (Ed. 4-01, U) the second second second second second second second cost (Ed. 4-01, U) the second second second second second cost (Ed. 4-01, U) the second second second second second cost (Ed. 4-01, U) the second second second second second second cost (Ed. 4-01, U) the second second second second second second cost (Ed. 4-01, U) the second second second second second second second second second cost (Ed. 4-01, U) the second second second second seco	port scenarios e najocific dans enarcis for the und as "loces" proport indication allo our undoos processi undoos processi undoos processi undoos processi transport, freight, is "transport, freight,	for the inareact is unareact in a localization of the barry of the source of the sourc	C: Exer or Interded data and the second data a	ELPE According to contrary and social social and social social social social and social social social and social social social social social social social and social socia	Indevided 1 as and of sos fairthis 19-32 too plactorush tobaction placto	y Rei B- like som EURO 5 serversteller som som Serversteller som Serversteller som Serversteller som Serversteller som Serversteller Serversteller som Serversteller Server Serversteller Serversteller Serversteller Serverstelle	PCIR, b acro. The weather we borry the charmonic of products account re- committee Na Na Na Na Na Na Na Na	sing 100% B-IPCR a Scharc re damotin fram april reserver scatter sca
In B-PCR provident In B-PCR provident the b-PCR provident provident In B-PCR (In 1997) In B-PCR (In 1997) In B-PCR (In 1997) In B-PCR (In 1997) In 1997 In 199	The definant transmitter are approximately a second	port scenarios e najocific dans enarcis for the und as "loces" proport indication allo our undoos processi undoos processi undoos processi undoos processi transport, freight, is "transport, freight,	for the inareact is unareact in a localization of the barry of the source of the sourc	C: Exp con The default is provided with a so to provide the provided of the second of the provided of	ELPE According to contrary and social social and social social social social and social social social and social social social social social social social and social socia	Indevided 1 as and of sos fairthis 19-32 too plactorush tobaction placto	y Rei B- like som EURO 5 serversteller som som Serversteller som Serversteller som Serversteller som Serversteller som Serversteller Serversteller som Serversteller Server Serversteller Serversteller Serversteller Serverstelle	PCR, b swistlaw long th protein arming at any d protein a scient a arming at arming a a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a arming a armin a a armin a armin a a a a a a a a a a a a a a a a a a a	sing 500% B-Park In B-Park In derneit E Fran auf Instructure Instr

# <section-header> Construction Construction

#### ENVIRONMENTAL PRODUCT DECLARATION

#### SVK FIBRE CEMENT CORRUGATED SHEETS

1 m<sup>2</sup> of fiber cement corrugated sheets with a thickness of 6,5 mm

Issued 01.06.2019 Valid until 01.10.2023

Third party verified Conform to EN 15804+A1 and NBN/DTD B08-001

Cradle to gate with options

[B-EPD n° 2019-00010]

OWNER OF THIS ENVIRONMENTAL PRODUCT DECLARATION





EPD PROGRAM OPERATOR Federale Overheidsdienst Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu www.b-epd.be

#### FEDERALE OVERHEIDSDIENST VOLKSGEZONDHEID, VEILIGHEID VAN DE VOEDSELKETEN EN LEEFMILIEU

[C - 2014/24263]

22 MEI 2014. — Koninklijk besluit tot vaststelling van de minimumeisen voor het aanbrengen van milieuboodschappen op bouwproducten en voor het registreren van milieuproductverklaringen in de federale databank

#### VERSLAG AAN DE KONING

#### Sire,

Het ontwerp van koninklijk besluit strekt tot vaststelling van de minimumeisen voor het aanbrengen van milieuboodschappen op bouwproducten en voor het registreren van milieuproductverklaringen in de federale databank.

In zijn advies van 10 april 2014 leverde de Raad van State bemerkingen op dit ontwerp.

De Raad van State stelt in punt 2 van het advies dat de normen waarnaar gerefereerd wordt toegankelijk moeten zijn.

Het besluit verwijst naar een document van de Europese Commissie dat gratis en online verkrijgbaar is. Toegankelijkheid is bijgevolg gegarandeerd.

Het besluit verwijst ook naar Europese normen gepubliceerd door het CEN en Internationale normen gepubliceerd door ISO. Ze zijn ook beschikbaar als Belgische norm gepubliceerd door het NBN. Deze normen zijn eenvoudig toegankelijk via de norminstellingen van alle Europese lidstaten.

#### SERVICE PUBLIC FEDERAL SANTE PUBLIQUE, SECURITE DE LA CHAINE ALIMENTAIRE ET ENVIRONNEMENT

[C - 2014/24263]

22 MAI 2014. — Arrêté royal fixant les exigences minimales pour les affichages environnementaux sur les produits de construction et pour l'enregistrement des déclarations environnementales de produits dans la base de données fédérale

#### RAPPORT AU ROI

#### Sire,

Le présent projet d'arrêté royal vise à fixer les exigences minimales pour les affichages environnementaux sur les produits de construction et pour l'enregistrement des déclarations environnementales de produits dans la base de données fédérale.

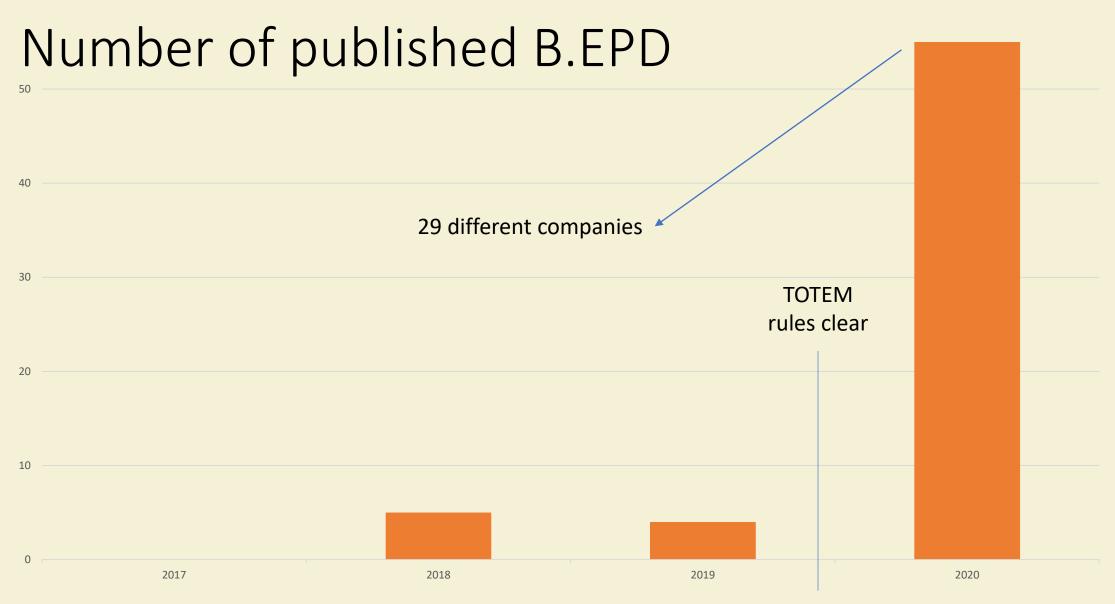
Dans son avis du 10 avril 2014, le Conseil d'Etat a émis des remarques sur ce projet.

Le Conseil d'Etat précise au paragraphe 2 de l'avis que les normes auxquelles il est fait référence doivent être accessibles.

L'arrêté se réfère à un document de la Commission européenne qui est gratuit et disponible en ligne. L'accessibilité est donc garantie.

L'arrêté fait également référence à des normes européennes publiées par le CEN et internationales publiées par l'ISO. Ils sont aussi disponibles comme norme belge, publiée par le NBN. Ces normes sont facilement accessibles via les organismes de normalisation de tous les pays européens.

 ... It is a legal obligation when putting an environmental message on your product or its packaging Presently, TOTEM is working with generic data. As from 2021, it will also use specific data through B-EPD.



2020: published or in final phase.

### Possibility to declare circularity: reversibility

Simplicity of disassembly	- simple - no specific dismantling tools required
	- simple - use of dismantling tools required
	<ul> <li>complex - requires specific tools and/or several workers</li> </ul>
	- complexe - requires specific know-how, tools and/or several workers
Speed of disassembly	- very speedy disassembly
	- speedy disassembly
	- rather slow disassembly
	- slow disassembly
Ease of handling (size and weight)	<ul> <li>easy to handle manually, one workers is usually sufficient</li> </ul>
	- can be handled manually, but size and/or weight may require more than one worker
	- can be handled manually, but size and/or weight requires two or more workers
	- handling requires mechnical devices
Robustness of material (material	- the material resists well during disassembly
resistance to disassembly)	- disassembly is possible but should be done carefully in order not to generate any damage
	- disassembly is possible but generates inevitable damage to the material
	- n/a: the element is not reversible

Developed 1, 100 c	and the second	
Reversibility	non reversible fixing	cast in mass
		projected
		coated
		plaster and filler
		cold or hot bonding, foam bonding
		glue
		sticky or adhesive tape
		welding
		glue mortar for masonry joints (Rjoint ≥ Rmat)
		cement mortar for masonry joints (R joint ≥ Rmat)
		hybrid mortar (cement / lime) for masonry joints (Rjoint ≥ Rmat)
	reversible with non repairable damage	lime mortar for masonry joints (Rjoint < Rmat)
		clay mortar for masonry joints (Rjoint < Rmat)
		sand joints (Rjoint < Rmat)
		mastic (window, sanitary elements) for joints (Rjoint < Rmat)
		nails and staples
	reversible with light repairable damage	screws, bolts and dowels
	reversible fixing	brackets, hooks, hooves, clips
	reversible fixing	nesting, interlocking, superposition, juxtaposition
	non reversible fixing	nesting / interlocking , under screed (example: concrete slab elements)
	reversible fixing	loose laying
	reversible fixing	loose laying without weighting
	reversible fixing	loose laying with weighting
	non reversible fixing	loose laying with weighting, under the screed
	non reversible fixing	multilayer composite material (layers are always glued)

<page-header></page-header>	<form></form>	<form></form>	ype EPD ype mikuproductverklaring : 01 (1000-10.4000kspc) 021 weg-bioletinspoo 031 weg-bioleting Abalanting systemperatum	afi	enden							
<text><text><text></text></text></text>	<form></form>	<text></text>	ype mileuproductive/Namg : 01/Weg-bad-labniekapoo 02/weg-bad-labniekapoo 03/weg-bad-labniekapoo 03/weg-bad-labniekapoo 03/weg-bad-labniekapoo 03/weg-bad-labniekapoo	art et met opties								
	P a egadada	<text></text>	©2 / wing-init-fatinitopoo ⊕3 / wing-bol-garl Multiering asystemic processing	rt met opties								
Fig. Product steller       ArrANI (process steller)       B' Ure Breger       C' End-OC-C/ fe steller       Display Breger (process steller)         1       Ure Breger       C' End-OC-C/ fe steller       Display Breger         1       Display       C' End-OC-C/ fe steller       Display Breger         1       Display       D' End-OC-C/ fe steller       Display Breger         1       Display       Display Breger       Display Breger       Display Breger         1       Display Breger       Display Breger       Display Breger       Display Breger       Display Breger         2       Display Breger       Display Breger<	Altonum men       Altonum men       Bil Um Singer       Cl End-Of-Cife steper       Big stepsing by	AT23. Product stars       ATA3. Product stars<										
NTSE       NTSE       NTSE       NTSE       NTSE       NTSE       NTSE         NTSE	All 25. Product all applie       All des Etaiges       De Land Gel data paper       Bern help bern help ber	A123. Product at at     A140 Description     B1 Date Stage     D1 End Stage     D1 End Stafe     B1 Date Stage       Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description       Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description       Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description       Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description       Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description       Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description       Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description       Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description     Image: Description       Image: Description     Image: Description     Image: Description     <										
$\frac{1}{1 + 1} + \frac{1}{1 + 1} + $	Image: space of the space	Image: state of the state	A123. Product stage Construction	B/ Use Stat	ge			G	D/ End-Of	-Life stag	e b	enefita i toada eyond the ystem
$\frac{1}{100} \frac{1}{100} \frac{1}$	No.       No.       No.       No.       No.       No.       No.         All No.	$ \frac{1}{10} $									bo	undery
$\frac{1}{\sqrt{1 + 1}} = \frac{1}{\sqrt{1 + 1}} = \frac{1}$	Image: state in the state	A       A       A       B	a Suppression ng bits taiding also bits taiding also neales protect	Ŧ	T.	/Gaug	ana mana ana ana ana ana ana ana ana ana		prisosite processing	assirg		Las
It       It <th< th=""><th>Image: state in the state</th><th>x       x</th><th>Rae Motori Transport k Transport k Inscritetion Use of the i Meinternero</th><th>Repair Reptaceme</th><th>Refurbishm</th><th>Operational</th><th>Openational</th><th>Decmehud</th><th>Transport &amp;</th><th>Weste proc</th><th>Disposal</th><th>Rouse Reo Potentia</th></th<>	Image: state in the state	x       x	Rae Motori Transport k Transport k Inscritetion Use of the i Meinternero	Repair Reptaceme	Refurbishm	Operational	Openational	Decmehud	Transport &	Weste proc	Disposal	Rouse Reo Potentia
Des       LECENCE     Control     Bis	Link       Disk       Disk <thdisk< th="">       Disk       Disk</thdisk<>	Like Unit     Die     Die <thdie< th=""> <thdie< th=""> <thdie< td=""><td></td><td>D OD</td><td>Op</td><td>OD</td><td>Op</td><td></td><td></td><td></td><td>BD B1</td><td></td></thdie<></thdie<></thdie<>		D OD	Op	OD	Op				BD B1	
Projecti - 1 ver 8       Name       Name       Description         Corr       Science       Name       Description       Description         Ad       (Description)       Science       Description       Description       Description         Ad       (Description)       Science       Description       Descrip	Project       Formula       Name       Description         Corr       Science       Name       Description       Science         A 4       Incordently per ITUDe (1-1)       Science       Science       Name       Science         A 4       Incordently per ITUDe (1-1)       Science       Science <t< th=""><th>Adv         Name         Description         <thdescription< th="">         Description         <thdescriptio< th=""><th>Olar Olar Blar Blar B</th><th>Pter Bter</th><th>Bler</th><th>e In</th><th>⊕<sub>ler</sub></th><th>e In</th><th>Oltr</th><th>Olar</th><th></th><th>"</th></thdescriptio<></thdescription<></th></t<>	Adv         Name         Description         Description <thdescription< th="">         Description         <thdescriptio< th=""><th>Olar Olar Blar Blar B</th><th>Pter Bter</th><th>Bler</th><th>e In</th><th>⊕<sub>ler</sub></th><th>e In</th><th>Oltr</th><th>Olar</th><th></th><th>"</th></thdescriptio<></thdescription<>	Olar Olar Blar Blar B	Pter Bter	Bler	e In	⊕ <sub>ler</sub>	e In	Oltr	Olar		"
Corr         Steam         Material           V         Address         Security/pp (1700m) = 1 for decade per 1 have been per - 1 have been pe	Construction         Name         Description           1         4	Corr         Search         Name         Beachtryping           //         A.4	Centerios									
Ad	A4       isometrality in [100m] (1) that of law parts 3 km in 120 km, reset transport - Capacital balance transport and (5)	A4         Learning (NL)         - Description/ppc (F100kmc) - 1 1 Sec class (p = 2 km; 1 / 2 km; version/sec - Capacital-banding-ppc (F10) - description/ppc (F100kmc) - to sec class (p = 2 km; 2 k										
A4       (NL)       bidrog/basegori.       Cold-bidrog (biglioc) = -V Violaregodassend, permissidai 100 m/p per suschangen - Violaregodassend, - Violaregodassend, per suschangen - Violaregodassend, per suschangen - Violaregodassend, - Violaregodas, - Violaregodassend, - Violaregodassend, - Violaregodassend, - Violaregodassendassendassendassendassendas, substituíta toxegopasal, - Violaregodas, - Violaregodas, - Violaregodas, - Violaregodas, - Violaregodas, - Violaregodas, - Violaregodassendasenda	A4       (NL)       using/wavgori Oldshull [gind] — Volarregelassed, periodskell 10 m3 per synaktionary Volarregelassed, periodskell 10 m3 periodskell 10	A4       (hL)       WeingTalemaport Definition [Fight] — V Unregulaxesent, generalization (fight 2) and the state of the s	- Brandstoftype (/100km)	> 1 liter diesel p	er 3 km:	179 km. 1	rachtwas	pen - Cap	activitate	nutingeg	raad (%)>	
As testatual     A	A5       Installatiii       - Advantuut rootig voor de installatiis> Mail gelectionserd Dorch serratevinen meer toolit, grout en valer> discubilitatiowethal, ->> Case Bencholding valeratiise installatiise installatise installatiise installatiise installatiise ins	AS     Installation     - Control in the installation of the transformed - Control in the state structures runs to take, grand on value> Gener. Advecting to Control installation.     Structure     Structure <td< td=""><td>A4 (NL) lading/transport Dichtheid capaciteit&gt; Sommige pod</td><td>[kgim3] -&gt; Volu lucten zijn gecon</td><td>umegeba ripacteer</td><td>useerd, ge til, dit is n</td><td>emiddeld iel meege</td><td>105 m3 p enomen,</td><td>er vrecht derhalve</td><td>wagen - \ ta een fac</td><td>Astume for 1</td><td>*</td></td<>	A4 (NL) lading/transport Dichtheid capaciteit> Sommige pod	[kgim3] -> Volu lucten zijn gecon	umegeba ripacteer	useerd, ge til, dit is n	emiddeld iel meege	105 m3 p enomen,	er vrecht derhalve	wagen - \ ta een fac	Astume for 1	*
C2       Immersion (web (Pk), - 40%, necycling, - 10%, skort %convertion over Nedwriand*       ¥         C3       Afriat (NL)       be wenawiking own gewcycled maleriaal to mesgenomen bij de incid van gewcycled maleriaal bij de productie, (NL)       ¥         C4       Afriat (NL)       Stort van mitmative with its indicative is indicative is indicative in convertische without (web maleriaal to NL)       ¥         p       p       Necycling (NL)       Stort van mitmative without (web maleriaal to indicative is indicative is open set (NL)       ¥         rg(we)1 • \$* we \$*       **       **	C2       Immunol and (NL)       - 60% recycling - 10% start "scamario voor Nederland"       X         C3       Anal website (NL)       De verserking van geescycled maleriaal is mesgenomen bij de insult van genocycled maleriaal bij de producile, (NL)       X         C4       Anal (NL)       Biot van ministele wed, met maleriaal (NL)       X         D       Beophysic (NL)       Biot van ministele wed, met maleriaal (NL)       X         met 20% maleriaal-Bioticsmise       Stort van ministele wed, met maleriaal (NL)       X         met 20% maleriaal-Bioticsmise       Stort van ministele wed, met maleriaal (NL)       X         met 20% maleriaal-Bioticsmise       Stort van ministele wed, met maleriaal (Stort van ministele wed, met maleriaal (Stort van ministele wed, met maleriaal)       X         met 20% maleriaal-Bioticsmise       Stort van ministele wed, met maleriaal (Stort van ministele wed, met maleriaal)       X         met 20% maleriaal-Bioticsmise       Care impact calegories and indicators       Stort van ministele website (Stort van Bioticsmise)	Image: C2     Transport     30% recycling. 10% sktaf "scenario voor Nuderland"     Image: C2       Image: C2     Annother D2     30% recycling. 10% sktaf "scenario voor Nuderland"     Image: C2       Image: C2     Annother D2     Annother D2     Scenario D2       Image: C2     Annother D2     Scenario D2     Scenario D2       Image: C2     Scenario D2 </td <td>AS Instatate - Materiaal nodig voor de in Geen - Andere hutpmiddele electriciteitiverbruik - Instat</td> <td>ataltatie&gt; Niet n&gt; Geen - Ber latiestyst&gt; Sni</td> <td>gedecter nodigde i tafoal is</td> <td>ment - Di</td> <td>recte emi &gt; Handri erd - Afv</td> <td>tasions na talige ins al dal de</td> <td>eer luchl, teltatie, di bouwplaa</td> <td>grond en us geen da verfæal</td> <td>water&gt;</td> <td>*</td>	AS Instatate - Materiaal nodig voor de in Geen - Andere hutpmiddele electriciteitiverbruik - Instat	ataltatie> Niet n> Geen - Ber latiestyst> Sni	gedecter nodigde i tafoal is	ment - Di	recte emi > Handri erd - Afv	tasions na talige ins al dal de	eer luchl, teltatie, di bouwplaa	grond en us geen da verfæal	water>	*
CS     versewarking use parks/cole maximum a merupikermen ing on notes van gancycke maximum og on produces,       V     C4     Alred (NJ.)       D     Recycling     Start van merunian og, nor metaliste og, nort makrima ing on produces,       V     D     Recycling     Marching on verpaktingsmalartaal op de booeptants, substituite boeppent, opwerking tot genutiantjørondulut       X     maximum of the produces     K	CS       versetting in precycles       meantrain production       *         V       C4       Arine (NL)       Start van minerale wol, trait materiaal       *         V       D       Recycling       Therphane       *         V       D       Care impact colegonias and indicators       *	Constraints of the velocity of the veloci	A on Transport and a set			vd*						*
(NL)         (NL)         Stort van minerale vol, trad materiaal         X           v         0         Afred (NL)         Stort van minerale vol, trad materiaal         X           v         p         (NL)         Heryching         Heryching van verpakkingemäerisal op de boueptank, substitutie loegepast, opeering bit gestuiselijsondelof         X           rg(en)! - 5 van 5         V         <	Image: Construction of the second s	(NL)         (NL) <td< td=""><td>C3 verwerking De verwerking van gerecycl</td><td>led materiaal is r egepast.</td><td>mergens</td><td>amen bij o</td><td>le inzel v</td><td>an gerec</td><td>ycled mai</td><td>ertaal bij</td><td>de productie</td><td>*</td></td<>	C3 verwerking De verwerking van gerecycl	led materiaal is r egepast.	mergens	amen bij o	le inzel v	an gerec	ycled mai	ertaal bij	de productie	*
Image: Strate	Conv. Impact calegories and indicators      Conv. Impact calegories and indicators	Construction of the second secon		Imaleriaal								*
rq(w)1 - 5 min 8	rg(ws)1 - 8 was 8 ▶ Core largest calegories and indicators	rg(inc)1 - 5 van 5	D Recycling Recycling van verpakkingen (NL) met 90% materiaal-efficient	maleriaal op de t le	bouwplas	ela, aubal	ilulie loeș	pepast, op	pwerking	lot granul	aal/grondals	( x -
Cure impact categories and indicators		Cons impact calegories and indicators										

Corr	Scenano	Naam	Beachingving - Brendstofvpe (/100km)> 1 like dassel per 3 km. 179 km. vrachtwagen - Capacitet/oberutlingsgraad (%)>	
/	**	Levering (NL)	dead consumption is voor wan gemetheld bekeng. 30% kord haap kinzg. 70% kord bend voor andere lakeng barapport. Dichthard (Harrin) – Vulkamgedaweset, gemetholder 100 m2 per restantavagen - Vulkame capacitati – V Sammige poducien zijn gecompaciewit, di is niet mesgenomen, derhalve is wen factor 1 (zagepast voor alle producien zijn gecompaciewit, di is niet mesgenomen, derhalve is wen factor 1 (zagepast voor alle producien zijn gecompaciewit, di is niet mesgenomen, derhalve is wen factor 1	×
/	A5	Installatie	<ul> <li>Nuteriase mode voor de installadie&gt; Ned gestecheesent - Deucte emissione naar lucht, grond en solar&gt; Geen - Andreen hyperiadioen -&gt; Ceen - Benodges en sergie -&gt; Handradge matelicht, das geen eluchtsbezetzetz. Installadies/vol -&gt; Single/val is gedeclareent - Afvid dat de boueplants verteet voor wichtsnitzig als volVoepadate ge single/val</li> </ul>	×
1	C2	Transport afval (NL)	- 90% necycling, - 10% stort "scenario voor Nederland"	×
1	C3	Afval verwerking (NL)	De verwerking van genecycled materiael is mesgenomen bij de inzel van genecycled materiael bij de productie, economische allocatie is loegepasi.	×
1	C4	Afval (NL)	Stort van minersie wol, inert materiaal	×
1	D	Recycling (NL)	Recycling van varpakkingarratieriaal op de bouwplaata, subsitiutie koegepaal, opwerking tol granutaat/grondatof met 20% materiaat-efficientie	×
nj	en)1 - 6 va	n 6		
₹ <u>.</u>	re impact o	alegories and	1 Indicatora	
		anemater.	Und - Method	

Parameter	Unit - Method
Global warming potential	kg CO2 equiv - EN 15804.2012 V
GWP_biogenic	kg CO2 eq - EN 15804
Depletion of the stratospheric ozone layer	kg CFC 11 equity -
Acidification of soil and water	kg SO2 eguty -
Eutrophication	kg (PO4)3- equiv - 🔻
Tropospheric azone formation	kg Elhene eguly -
Depletion of non fossil resources	kg Sb equiv - 🔻
Depletion of foxell resources	MJ, nel calorific value -

Personater	Abbrevisto		Unit	A1	A2	AX	A1 - A3
Global warming potential	GWP	kg CO2 (	equiv [				4,10E+00
GWIP_biogenic	GWP_bio	kg CO2 (	eq [				-8,60E-01
Depletion of the stratospheric ozone aver	ODP	kg CFC	11 equiv				2,60E-0
Additication of soil and water	AP	kg SO2 (	equiv [				3,40E-00
Eutrophication	EP	kg (PO4)	3-equiv				5.40E-00
Tropospheric ozone formation	POCP	kg Ethen	e equiv				1.40E-03
Depletion of non foxail resources	ADPE	kg Sb eq	utv				4.00E-06
Depletion of fossil resources	ADPE	MJ, net o value	calorific				3,00E-00

Parameter	Abbreviebor		Unit	A4	A5
				Levering (NL)	Installatie
Global warming potential	GWP	kg CO2	equiv	2,60E-01	4,30E-01
GWP_biogenic	GWP_bio	kg CO2	eq.	.00E+00	6.60E-01
Depletion of the stratospheric czone lay	rODP	kg CFC	11 equiv	4,70E-08	-9.40E-09
Additication of soil and water	AP	kg SO2	equiv	9,80E-04	5,30E-04
Eutrophication	EP	kg (PO+	4)3- equiv	1.70E-04	9.70E-05
Tropospheric ozone formation	POOP	kg Ethe	ne equiv	4,306-05	1.80E-05
Depletion of non foxall resources	ADPE	kg Sb e	quiv	9.40E-07	1.20E-08
Depletion of fossil resources	ADPE	MJ, nel	calorific value	1.90E-03	-2.70E-04

Parameter	Abbreviation	n Unit	CZ	CS	C4
			Transport aholi (N	L)Afval veneerking (NL)	Afval (NL)
Global warming potential	GWP	kg CO2 equiv	1,20E-01	1,50E-01	5,90E-03
GWP_biogenic		kg CO2 eq	,00E+00	,00E+00	,00E+00
Depletion of the stratospheric ozone b	eyerODP	kg CFC 11 equiv	2,205-08	2,70E-08	1,60E-09
Additication of soil and water	AP	kg SO2 equiv	5,205-04	5,905-04	3,30E-05
Eutrophication	EP	kg (PO4)3- equiv	9,305-05	1,005-04	6,00E-06
Tropospheric ozone formation	POCP	kg Elhene equiv	2,105-05	2,605-05	1,30E-06
Depletion of non foxail resources	ADPE	kg Sb equiv	3.00E-07	5.40E-07	1,205-08
Depletion of fossil resources	ADPE	MJ, nel calorific value	8.70E-04	1.10E-03	6.20E-05

D. Voordelen en laaten buiten de systeemgnenzen

Parameter	Abbreviation		Unit	D Recycling (NL)
Global warming potential	GWP	kg CO2	equiv	-2.90E-03
GWP_biogenic	GWP_bio	kg CO2	eq.	.00E+00
Depletion of the stratospheric crone layer	ODP	kg CFC	11 equiv	-8,10E-10
Additication of soil and water	AP	kg SO2	equiv	-1.90E-04
Eutrophication	EP	kg (PO4	Viupe - C(4	-1.50E-05
Tropospheric ozone formation	POOP	kg Ethia	ne equiv	-1.00E-05
Depletion of non fossil resources	ADPE	kg Sb e	quiv	1,205-08
Depletion of fossil resources	ADPE	MJ, nel	calorific value	-7.00E-04

Cities parameters describing resources and weste

Additional impact calogools and indicators

service public fédéral SANTE PUBLIQUE, SECURITE DE LA CHAINE ALIMENTAIRE ET ENVIRONNEMENT

## www.b-epd.be

- Reference documents
- One address for all your questions on B-EPD: epd@health.fgov.be
- The database is available on <u>www.environmentalproductdeclarations.eu</u>
- Stay informed via <u>epdnews@environment.belgium.be</u>