GaBi
Product Sustainability
Performance

Database Service Pack 27

Changelog GaBi 6 Service Pack 26 to 27

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PE INTERNATIONAL
SUSTAINABILITY PERFORMANCE

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Introduction

GaBi Service Packs can comprise updates, enhancements or fixes to the following GaBi objects: flows, quantities, units, contacts, interpretations and references/citations. This document provides detailed information on what will be changed/added/deleted with the installation of the Service Packs.

If you need further information or if special questions should arise which have not been adequately described in this document, please feel free to send an e-mail to support@gabi-software.com.

1. Changed characterization factors

- Reworked methods with SP27: Ecotoxicity for aquatic fresh water, USEtox (recommended), Human toxicity cancer effects, USEtox (recommended), Human toxicity non-canc. effects, USEtox (recommended); EDIP 2003; Impact 2002+

In addition, the following flows will be updated with the installation of Service Pack 27:

Flow	Folder	Quantity	Service pack 26 factor	Service pack 27 factor
Sulphur trioxide	Inorganic emissions to air	EDIP 2003, Acidification potential	0,8	14,1
Trichloromethane (chloroform)	Organic intermediate products	Energy (gross calorific value)	3,964	2,64
Dichloromethane (methylene chloride)	Organic intermediate products	Energy (gross calorific value)	7,133	4,65
Ethylene oxide	Organic intermediate products	Energy (net calorific value)	15,7	26,95
Uranium, fuel grade, 2291 GJ per kg	Uranium products	Primary energy from non renewable resources (gross cal. value)	2291000	-
		Primary energy from non renewable resources (net cal. value)	2291000	-
Industrial waste (incineration)	Waste for recovery	Energy (gross calorific value)	1,1	1
Chloromethane	Organic intermediate products	Energy (gross calorific value)	15,13	12,17
Sorghum, grains (20% H2O content)	Renewable primary products	Energy (net calorific value)	13,9	12,98
Winter wheat straw ES (14% H2O content)	Renewable primary products	Energy (net calorific value)	15,69	14,53
		Energy (gross calorific value)	14,53	15,69

Sodium chloride (rock salt)	Non renewable resources	Resource Depletion, fossil and mineral, reserve Based, CML2002	2,78E-7	0
Crude oil Brazil	Crude oil (resource)	CML2001 - Nov. 09, Abiotic Depletion (ADP fossil)	0	42,5
		CML2001 - Nov. 2010, Abiotic Depletion (ADP fossil)	0	42,5
		Resource Depletion, fossil and mineral, reserve Based, CML2002	0	3,31E-07

2. New characterization factors for existing flows

Flow	Folder	Quantity	Service pack 27 factor
Methane (biotic)	Organic emissions to air (group VOC)	TRACI 2.1, Global Warming Air, excl biogenic carbon, incl LUC, no norm/weight	22,25
		TRACI 2.1, Global Warming Air, excl. biogenic carbon	22,25
		TRACI 2.1, Global Warming Air, incl biogenic carbon, incl LUC, no norm/weight	25
		TRACI 2.1, Global Warming Air, incl. biogenic carbon	25
1-Butoxypropanol	Group NMVOC to air	Photochemical ozone formation, LOTOS-EUROS model, ReCiPe	0,782
Trifluoroiodomethane	Halogenated organic emissions to air	ReCiPe 1.08 Endpoint (E) - Climate change Ecosystems, excl biog. C, incl LUC, no norm/weight	1,87E-9
		ReCiPe 1.08 Endpoint (E) - Climate change Ecosystems, incl biog. C, incl LUC, no norm/weight	1,87E-9
		ReCiPe 1.08 Endpoint (E) - Climate change Human Health, excl biog. C, incl LUC, no norm/weight	3,51E-7
		ReCiPe 1.08 Endpoint (E) - Climate change Human Health, incl biog. C, incl LUC, no norm/weight	3,51E-7

		ReCiPe 1.08 Endpoint (H) - Climate change Ecosystems, excl biog. C, incl LUC, no norm/weight	3,17E-9
		ReCiPe 1.08 Endpoint (H) - Climate change Ecosystems, incl biog. C, incl LUC, no norm/weight	3,17E-9
		ReCiPe 1.08 Endpoint (H) - Climate change Human Health, excl biog. C, incl LUC, no norm/weight	5,6E-7
		ReCiPe 1.08 Endpoint (H) - Climate change Human Health, incl biog. C, incl LUC, no norm/weight	5,6E-7
		ReCiPe 1.08 Endpoint (I) - Climate change Ecosystems, excl biog. C, incl LUC, no norm/weight	7,93E-9
		ReCiPe 1.08 Endpoint (I) - Climate change Ecosystems, incl biog. C, incl LUC, no norm/weight	7,93E-9
		ReCiPe 1.08 Endpoint (I) - Climate change Human Health, excl biog. C, incl LUC, no norm/weight	1,19E-6
		ReCiPe 1.08 Endpoint (I) - Climate change Human Health, incl biog. C, incl LUC, no norm/weight	1,19E-6
		ReCiPe 1.08 Midpoint (E) - Climate change, excl biog. C, incl LUC, no norm/weight	0,1
		ReCiPe 1.08 Midpoint (E) - Climate change, incl biog. C, incl LUC, no norm/weight	0,1
		ReCiPe 1.08 Midpoint (H) - Climate change, excl biog. C, incl LUC, no norm/weight	0,4
		ReCiPe 1.08 Midpoint (H) - Climate change, incl biog. C, incl LUC, no norm/weight	0,4
		ReCiPe 1.08 Midpoint (I) - Climate change, excl biog. C, incl LUC, no norm/weight	1
		ReCiPe 1.08 Midpoint (I) - Climate change, incl biog. C, incl LUC, no norm/weight	1
		TRACI 2.1, Global Warming Air, incl biogenic carbon, incl LUC, no norm/weight	0,4
		ReCiPe 1.08 Endpoint (E) - Climate change Ecosystems, excl biog. C, incl LUC, no norm/weight	1,87E-9

		ReCiPe 1.08 Endpoint (E) - Climate change Ecosystems, incl biog. C, incl LUC, no norm/weight	1,87E-9
		ReCiPe 1.08 Endpoint (E) - Climate change Human Health, excl biog. C, incl LUC, no norm/weight	3,51E-7
		ReCiPe 1.08 Endpoint (E) - Climate change Human Health, incl biog. C, incl LUC, no norm/weight	3,51E-7
		ReCiPe 1.08 Endpoint (H) - Climate change Ecosystems, excl biog. C, incl LUC, no norm/weight	3,17E-9
		ReCiPe 1.08 Endpoint (H) - Climate change Ecosystems, incl biog. C, incl LUC, no norm/weight	3,17E-9
		ReCiPe 1.08 Endpoint (H) - Climate change Human Health, excl biog. C, incl LUC, no norm/weight	5,6E-7
		ReCiPe 1.08 Endpoint (H) - Climate change Human Health, incl biog. C, incl LUC, no norm/weight	5,6E-7
Sugar beet pellets (80% H2O content)	Biomass fuels	Energy (gross calorific value)	16,39
Municipal waste (MWI)	Consumer waste	Energy (gross calorific value)	10,45
Electricity (product)	Electric power	Energy (gross calorific value)	1
Electricity (credit)	Electric power	Energy (gross calorific value)	1
Power (for credit)	Electric power	Energy (gross calorific value)	1
Energy MJ (nonspecific; product)	Energy carrier	Energy (gross calorific value)	1
Energy MJ (nonspecific; credit)	Energy carrier	Energy (gross calorific value)	1
particle board P2 (8.5% moisture)	Materials from renewable raw materials	Energy (gross calorific value)	12131,23
Particle board P6/P7 (8.5% moisture)	Materials from renewable raw materials	Energy (gross calorific value)	12131,23
Particle board P5 (8.5% moisture)	Materials from renewable raw materials	Energy (gross calorific value)	12131,23
Natural gas	Natural gas products	Energy (gross calorific value)	45,1

		Energy (net calorific value)	40,75
		Standard volume	1,25
Other energetic inputs (IISI)	Non renewable energy resources	Energy (gross calorific value)	1
Metallurgical coal	Non renewable resources	Energy (net calorific value)	26,31
		Energy (gross calorific value)	27,35
2-Methoxy-1-propanol	Organic intermediate products	Energy (net calorific value)	25,5
		Energy (gross calorific value)	28
Dipropylene glycol	Organic intermediate products	Energy (gross calorific value)	27,5
Activated carbon	Organic intermediate products	Energy (gross calorific value)	38,72
Butyl methyl ether (MTBE)	Organic intermediate products	Energy (gross calorific value)	38,698
Methyl ethyl ketone (2-butanone; MEK)	Organic intermediate products	Energy (gross calorific value)	34,76
Butyrolactone	Organic intermediate products	Energy (gross calorific value)	24,53
Sebacic acid	Organic intermediate products	Energy (gross calorific value)	28,8167
Dimethylphenol	Organic intermediate products	Energy (gross calorific value)	37,4
BTX-Fraction	Organic intermediate products	Energy (gross calorific value)	44
Coke oven gas (from external supply, MJ)	Other fuels	Energy (gross calorific value)	1,1
Coke oven gas (MJ)	Other fuels	Energy (gross calorific value)	1,1
Basic Oxygen Furnace Gas (MJ)	Other fuels	Energy (gross calorific value)	1,1
Copolyester (aliphatic)	Plastics	Energy (gross calorific value)	27,61

Melamine resin foam	Plastics	Energy (gross calorific value)	15,4
Starch blends (PVA)	Plastics	Energy (gross calorific value)	21,835
Polyamide 4.10 granulate (PA 4.10)	Plastics	Energy (gross calorific value)	35,31
Starch blends (PLA)	Plastics	Energy (gross calorific value)	18,26
Thermoplastic starch polymer (TPS)	Plastics	Energy (gross calorific value)	17,6
Wood, unspecified, standing/kg	Renewable resources	Energy (net calorific value)	10,43
		Energy (gross calorific value)	14,9
Wood, soft, US SE, standing/m3	Renewable resources	Energy (net calorific value)	10,43
		Energy (gross calorific value)	14,9
Wood, soft, US PNW, standing/m3	Renewable resources	Energy (net calorific value)	10,43
		Energy (gross calorific value)	14,9
Renewable fuels	Renewable resources	Energy (net calorific value)	15
		Energy (gross calorific value)	16,59
Soft wood, dry matter	Renewable resources	Energy (net calorific value)	10,43
		Energy (gross calorific value)	14,9
Wood, soft, INW, standing	Renewable resources	Energy (net calorific value)	4954,25
		Energy (gross calorific value)	7077,5
Hard wood, dry matter, raw material	Renewable resources	Energy (net calorific value)	15,74
		Energy (gross calorific value)	22,49
Biomass (MJ)	Renewable resources	Energy (gross calorific value)	1,09
Textiles (cotton)	Textile	Energy (gross calorific value)	17,05
Textiles (PA 6.6-fabric)	Textile	Energy (gross calorific value)	35,2

Textiles (viscose fabrics)	Textile	Energy (gross calorific value)	16,5
Thermal energy from hard coal (MJ)	Thermal Energy	Energy (gross calorific value)	1
Steam (for credit)	Thermal Energy	Energy (gross calorific value)	1
Thermal energy (for credit)	Thermal Energy	Energy (gross calorific value)	1
Uranium oxide (U3O8), 332 GJ per kg, in ore	Uranium (resource)	Energy (gross calorific value)	332000
Uranium, in ground	Uranium (resource)	Energy (gross calorific value)	560000
		Energy (net calorific value)	560000
Uranium, fuel grade, 2291 GJ per kg	Uranium (resource)	Energy (gross calorific value)	2291000
Cottons seed	Renewable primary products	C_wt	0,5
		Energy (net calorific value)	20
		Water_wt	0,1

3. New emission flows

Flow	Folder
Water (lake water from technosphere, rain water)	Other emissions to fresh water
Water (sea water from technosphere, rain water)	Other emissions to sea water

4. New valuable substance flows

Flow	Folder
Anhydrous Milk Fat	Renewable primary products
Apple (raw material)	Renewable primary products
Apple Juice Concentrate	Materials from renewable raw materials
Apple Juice Concentrate Package	Materials from renewable raw materials
Bacteria	Materials from renewable raw materials
Beef, boneless	Materials from renewable raw materials
Bovine blood, unprocessed	Materials from renewable raw materials
Bovine blood, unprocessed (price 0,06 Euro)	Materials from renewable raw materials
Broken Rice	Materials from renewable raw materials
Cacao (fermented)	Materials from renewable raw materials
Cacao (press cake)	Materials from renewable raw materials
Cacao powder	Materials from renewable raw materials
Canola (rapeseed) oil, raw	Materials from renewable raw materials
Canola Seeds (8% H2O content)	Renewable primary products
carrots (87% H2O content)	Renewable primary products
Cashew nut (15% H2O content)	Renewable primary products
Cassava dried	Materials from renewable raw materials
Cheese (hard cheese)	Renewable primary products
Coarse colza meal	Materials from renewable raw materials
Cocoa beans and pulp (50% H2O content)	Renewable primary products
Cocoa butter, regular A (alkalized)	Materials from renewable raw materials
Cocoa butter, regular A (no alkalization)	Materials from renewable raw materials
Cocoa butter, regular C (no alkalization)	Materials from renewable raw materials
Cocoa liquor, regular A (no alkalization)	Materials from renewable raw materials
Coconut (fruit at field) 48% H20	Renewable primary products
Coconut cake (6.5% H2O content)	Renewable primary products
Corn Bran	Materials from renewable raw materials
Corn Germ Meal (17% CP)	Materials from renewable raw materials
Corn Gluten Feed (21.5% CP)	Materials from renewable raw materials
Corn Gluten Meal (60% CP)	Materials from renewable raw materials

Corn Oil, Crude	Materials from renewable raw materials
Corn Starch	Materials from renewable raw materials
Corn Steep Liquor	Materials from renewable raw materials
Corn Syrup Solid	Renewable primary products
Corn, grains (25% H2O content)	Renewable primary products
Cotton oil	Renewable primary products
Cottonseed Hulls (10% CP)	Materials from renewable raw materials
Cottonseed Linters (first cut)	Materials from renewable raw materials
Cottonseed Linters (second cut) (second cut)	Materials from renewable raw materials
Cottonseed Meal (48% CP)	Materials from renewable raw materials
Cottonseed Oil Crude	Materials from renewable raw materials
Cream	Materials from renewable raw materials
Cream (38%)	Materials from renewable raw materials
Crude coconut oil	Materials from renewable raw materials
Crude palm kernel oil	Materials from renewable raw materials
Crude Palm Oil	Materials from renewable raw materials
Crystallin Dextrose Monohydrate	Materials from renewable raw materials
Curd	Materials from renewable raw materials
Dipentene	Materials from renewable raw materials
Enzymes, saccharification	Operating materials
Fat (Food)	Materials from renewable raw materials
Field beans (14% H2O content)	Renewable primary products
Fish meal	Renewable primary products
GBG Expeller Cake, 12% Fat	Materials from renewable raw materials
Glucose syrup (68% H2O content)	Materials from renewable raw materials
Kenaf (75% H2O content)	Renewable primary products
Lamb	Materials from renewable raw materials
Limonene	Materials from renewable raw materials
Linseed oil	Materials from renewable raw materials
Linseed press cake	Materials from renewable raw materials
Liquid Whey Protein Concentrate (liquid)	Materials from renewable raw materials
Livestock	Materials from renewable raw materials
Lupine grains (14% H2O content)	Renewable primary products
Maize	Materials from renewable raw materials
Maize, straw (30% H2O content)	Renewable primary products
Milk (at farm)	Materials from renewable raw materials
Milk (at operation site)	Materials from renewable raw materials
Milk (at operation site, before pretreatment)	Materials from renewable raw materials
Milk (pasteurized)	Materials from renewable raw materials
Milk Protein Concentrat	Renewable primary products

Molasses	Materials from renewable raw materials
Mozzarella	Materials from renewable raw materials
Orange juice	Materials from renewable raw materials
Oranges	Renewable primary products
Oranges at field border (90% H2O content)	Renewable primary products
Palm kernel cake	Materials from renewable raw materials
Pasteurized cream (42%)	Materials from renewable raw materials
Pasteurized whole milk	Materials from renewable raw materials
Peanut (40 % H2O content)	Renewable primary products
Peanut hay (10% H2O content)	Renewable primary products
Peas (14% H2O content)	Renewable primary products
Powdered Whey Protein Concentrate	Materials from renewable raw materials
Pressed material	Renewable primary products
Product01	Materials
Product02	Materials
Product03	Materials
Product04	Materials
Product05	Materials
Product06	Materials
Product07	Materials
Products for rendering	Materials from renewable raw materials
Pulp	Renewable primary products
Rapeseed Meal	Materials from renewable raw materials
Raw cotton from field (10% H2O content)	Materials from renewable raw materials
Raw juice	Materials from renewable raw materials
Rice Bran deoiled cake	Materials from renewable raw materials
Rice Polish (11.8% CP)	Materials from renewable raw materials
Rice, grains (15% H2O content)	Renewable primary products
Rice, straw (15% H2O content)	Renewable primary products
Sheep (adult animal)	Materials from renewable raw materials
Sheep milk	Materials from renewable raw materials
Skim milk	Renewable primary products
Skim milk powder	Renewable primary products
Sorghum, grains (20% H2O content)	Renewable primary products
Soy bean (12% H2O content)	Renewable primary products
Soy, oil raw	Materials from renewable raw materials
Soybean Hulls (11% CP)	Materials from renewable raw materials
Soybean meal, hexane extracted (48% CP)	Materials from renewable raw materials
Spring, barley grains (14% H2O content)	Renewable primary products
Starch slurry (65% H2O content)	Materials from renewable raw materials

Sugar (crystal sugar)	Materials from renewable raw materials
Sugar cane (74.5% H2O content)	Renewable primary products
Sugar cane (TH; 74.5% H2O content)	Renewable primary products
Sunflower (15% H2O content)	Renewable primary products
Sunflower Meal (25-30% CP)	Materials from renewable raw materials
Sunflower Oil, Crude	Materials from renewable raw materials
Sunflowers, seeds (10% H2O content)	Renewable primary products
Syrup	Materials from renewable raw materials
Tapioca (60% H2O content)	Renewable primary products
Tapioca pulp	Renewable primary products
Tapioca starch slurry (65% H2O content)	Materials from renewable raw materials
Thai rice, grains (15% H2O content)	Renewable primary products
Tomato (97% H2O content)	Renewable primary products
UF Retentate	Materials from renewable raw materials
Vegetable raw oil	Materials from renewable raw materials
Wheat Germ (25-30% CP)	Materials from renewable raw materials
Wheat grains dried (14% H2O content)	Renewable primary products
Wheat Red Dogs (16.5% CP)	Materials from renewable raw materials
Wheat White Flour	Materials from renewable raw materials
Whey	Materials from renewable raw materials
Whey (liquid)	Renewable primary products
Winter canola (rapeseed) (75% H2O content)	Renewable primary products
Winter triticale, grains (14% H2O content)	Renewable primary products
Winter wheat flour (15% H2O content)	Renewable primary products
Winter wheat grains ES (14% H2O content)	Renewable primary products
Winter wheat grains NL (14% H2O content)	Renewable primary products
Winter wheat grains PL (14% H2O content)	Renewable primary products
Winter wheat grains UK (14% H2O content)	Renewable primary products
Winter wheat straw DE (14% H2O content)	Renewable primary products
Winter wheat straw ES (14% H2O content)	Renewable primary products
Winter wheat straw NL (14% H2O content)	Renewable primary products
Winter wheat straw PL (14% H2O content)	Renewable primary products
Winter wheat straw UK (14% H2O content)	Renewable primary products