

Novartis Health, Safety and Environment (HSE) Data 2013

	Novartis Institutes for BioMedical Research													
	Novartis Group ¹		Pharmaceuticals		Alcon		Sandoz		Vaccines and Diagnostics		Consumer Health ²			
	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012
HSE Personnel	533	505	221	217	34	32	64	64	139	119	36	36	27	23
Lost time injury & illness rate (LTIR)	0.12	0.14	0.12	0.12	0.06	0.01	0.15	0.17	0.11	0.16	0.16	0.09	0.08	0.27
Total recordable case rate (TRCR)	0.42	0.45	0.39	0.43	0.67	0.46	0.56	0.58	0.33	0.37	0.27	0.34	0.38	0.50
Total production [1000 t]	207	214	30	33	0.0	0.0	72	78	86	85	0.2	0.2	18	17
Contact Water use [million m3]	17.1	17.1	3.7	3.9	0.5	0.5	2.7	2.7	8.3	8.3	1.2	1.1	0.6	0.5
Energy use [million GJ]	19.9	19.4	5.6	5.4	1.3	1.2	3.2	3.0	7.6	7.6	1.6	1.6	0.6	0.6
Emissions														
Effluent discharge [million m3]	18.0	17.9	4.1	4.0	0.5	0.5	2.5	2.5	8.2	8.3	1.2	1.2	1.5	1.4
COD [1000 t]	3.7	3.9	0.5	0.7	0.0	0.0	0.1	0.1	3.1	3.1	0.0	0.0	0.0	0.0
Sulfur dioxide, SO2 [t]	62	65	5.7	8.1	0.4	0.4	2.0	2.1	53	54	0.1	0.1	0.3	0.5
Nitrogen oxide NO2 [t]	302	302	89	94	10	10	49	46	131	128	13	13	11	11
Halogenated VOCs [t]	103	111	1.1	1.0	0.0	0.0	0.0	0.0	101	110	0.0	0.0	0.4	0.0
Non-halogenated VOCs [t]	849	947	215	230	3	3	51	51	558	650	0.9	1.1	23	13
Scope 1, Combustion & process [1000 t]	475	463	135	133	18	19	73	66	186	186	44	42	19	18
Scope 1, Vehicles [1000 t]	169	177	84	89	0.1	0.1	35	40	29	29	4.3	4.5	7.1	7.5
Scope 2, Purchased energy [1000 t]	968	1001	207	215	64	77	268	267	298	307	92	95	39	39
Operational Waste														
Non-hazardous waste not recycled [1000 t]	42	41	6.4	6.0	1.5	1.6	6.9	5.4	8.0	8.6	16	16	3.0	3.4
Hazardous waste not recycled [1000 t]	97	92	65	63	1.2	1.2	1.4	1.0	26	23	1.5	1.1	1.7	2.2
Non-hazardous waste recycled [1000 t]	68	57	13	13	1.3	1.3	11	12	38	26	3.1	1.6	2.2	2.7
Hazardous waste recycled [1000 t]	100	94	23	20	0.0	0.0	8.8	5.6	68	68	0.1	0.1	0.0	0.0

¹ Novartis Group includes Novartis Corporate. Novartis Group totals may vary slightly from the sums of individual values due to rounding.

² Consumer Health data includes Animal Health and OTC.

The Reporting Process

The HSE Data Management System and data collection process are key elements of Corporate Citizenship Management at Novartis. The data describes our major material flows across company boundaries and environmental impacts originating from our own operations (Scope 1), as well as greenhouse gas emissions (GHG) from the generation of purchased energy (Scope 2). We do not monitor environmental impacts from the manufacture and delivery of purchased goods and services, nor the use of resources and other related emissions for activities outside company boundaries (Scope 3), such as GHG emissions from transportation by third parties.

HSE data is collected and reviewed on a quarterly basis. The 2013 environmental and resource data published in the Annual Report and on our website are actual data for the period from January through September and best estimates for the period October through December, which will be updated with actual data in the first quarter of 2013. Significant deviations will be reported on our