4.6 Classification of drift sensitive materials

The given classification (source: *Handboek Modelvoorschriften Luchtverontreiniging*, SDU publishers The Hague, 1980, Chapter 3: *Op- en overslag* 'Storage and transhipment') is not limitative and could be changed or extended. For some iron ores, a distinction is made between product storage and product handling. On the basis of the drift characteristics of a material and the possibility to prevent dispersion through wetting, non-reactive products are classed as follows:

- S1 highly drift sensitive, not wettable;
- S2 highly drift sensitive, wettable;
- S3 moderately drift sensitive, not wettable;
- S4 moderately drift sensitive, wettable;
- S5 not or very slightly drift sensitive.

The storage and handling of toxic and/or reactive products is disregarded here because when these products are shipped in bulk this should occur in closed systems or packed form and not as bulk cargo.

	Product (specification)	Dispersion class
Alum earth		S1
Baryta		S3
Baryta (ground)		S1
Bauxite	calcined	S1
	China calcined	S1
	raw bauxite	S5
Bimskies		S4
Blast furnace slag		S4
Borax		S3
Calcium carbide		S1
Carborundum		S5
Cement		S1
	clinker bricks	S4
Clay	bentonite, chunks	S3
	bentonite, ground	S1
	chamotte clay, chunks	S4
	chamotte clay, ground	S1
	kaoline (China) clay, chunks	S3
	kaoline (China) clay, ground	S1
Coal	anthracite	S2
	brown coal, briquettes	S4
	coal	S4
	coal	S2
	powder coal	S1
Coarse aggregate for the (fluid) concrete and prefab concrete industry	Gravel	S5
	Lytag	S5
	Lime stone	S5
	Lava	S5
	Granules	S5
Cokes	Coal cokes	S4
	fluid cokes	S1
	petroleum coke, calcined	S1
	petroleum coke, coarse	S4
	petroleum coke, fine	S2

	Product (specification)	Dispersion class
Derivates and related products	alfalfa pellets	S3
	almond flour	S3
	apple pulp pellets	S3
	babassu pellets	S3
	barley meal	S1
	barley pellets	S3
	bone meal	S1
	brewer's grain pellets	S3
	buckwheat flour	S1
	cassava pellets, hard	S3
	cassava root	S3
	cattle feed pellets	S3
	citrus pellets	S3
	cocoa beans	S3 [3)]
	coffee pulp pellets	S3
	compound feed pellets	S3
	copra	S5
	copra cakes	S3
	copra chips	S3
	copra pellets	S3
	corn distiller grain flour	S3
	corn distiller grain pellets	S3
	corn plant pellets	S3
	corncob pellets	S3
	cottonseed pellets	S3
	D.F.G. pellets (maize sprout pellets)	S3
	extracted babassu	S3
	extracted bone	S3
	extracted copra	S3
	extracted cottonseed	S3
	extracted groundnuts	S3
	extracted kapok seed	S3
	extracted kardi seed	S3
	extracted linseed	S3
	extracted macoja	S3
	extracted mango	S1
	extracted olive fruit	S3
	extracted palm pit	S3
	extracted rapeseed	S3
	extracted safflower seed	S3
	extracted salseed	S1
	extracted sesame seed	S3
	extracted sorghum seed	S3
	extracted soyameal	S3
	extracted sunflower seed	S3
	extracted tucum	S3
	groundnut pellets	S3
	groundnuts	S5
	hominecychop pellets	S3
	kapok seed pellets	S3
	leaf meal pellets	S3
	linseed pellets	S3
	lucerne pellets	S3
	macoja pellets	S3
	macuna meal	S3
	maize flour	S3
	maize gluten meal	S3
	maize gluten pellets	S3
	malt sprout pellets	S3
	malt sprout pellets	S3
	mango pellets	S3
	mill run pellets	S3
	milo flour	S3
	milo gluten pellets	S3
	oat pellets	S3
	oatmeal	S1
	olive pulp pellets	S3

	Product (specification)	Dispersion class
Derivates and related products	palm pit cakes	S3
	palm pit pellets	S3
	palm pits	S5
	peanut hull pellets	S3
	pineapple pellets	S3
	pollard pellets	S3
	potato flour	S1
	potato slices	S3
	quar bean meal	S3
	quar bean meal pellets	S3
	rapeseed pellets	S3
	rice bran	S1
	rice hull pellets	S3
	rice husk pellets	S3
	rye meal	S1
	rye pellets	S3
	safflower seed pellets	S3
	salseed extraction pellets	S3
	sesame seed pellets	S3
	soiulac pellets	S3
	sorghum seed pellets	S3
	sorghum seed pellets	S3
	soya chips	S3
	soya flour	S3
	soya pellets	S3
	splent grain pellets	S3
	sugar beet pulp pellets	S3
	sugar cane pellets	S3
	sunflower seed pellets	S3
	sweet potato pellets	S3
	tapioca chips	S1
	tapioca cubes	S1
	tapioca pellets, hard	S3
	tapioca pellets, natives	S1
	tea pellets	S3
	wheat meal	S1
	wheat pellets	S3
	hominecychop meal	S3
Dolomite	chunks	S5
	ground	S1
Feldspar		S5
Ferrochromium, chunks		S5
Ferromanganese, chunks		S5
Ferro-phosphorus, chunks		S5
Ferrosilicon, chunks		S3
Fertiliser	ammonium sulphate nitrate	S3
	di ammonium phosphate	S1
	double super-phosphate, granules	S3
	double super-phosphate, powder	S1
	lime ammonium nitrate	S3
	sulphuric ammonia	S3
	triple super-phosphate, powder	S1
Fluorspar		S5
Fly ash		S1
Glass waste		S5
Grain	barley	S3
	buckwheat	S3
	groats	S3
	kafi corn	S3
	linseed screenings	S3
	maize	S3
	malt	S3
	milicorn	S3
	oat screenings	S3
	oats	S5
	rapeseed screenings	S3
	rice	S5
	rice husk	S3
	rye	S3
	sorghum seed	S3
	soya grits	S3
	wheat	S3
Gravel		S5
Gypsum		S3
Heavy spar		S5
Household refuse		

	Product (specification)	Dispersion class
Iron ore	Beeshoek, fine ore	S5 1)
	Beeshoek, lump ore	S5 1)
	Bomi Hill, lump ore	S4
	Bong Range concentrate	S4 2)
	Bong Range pellets	S5 1)
	Braz. Nat. ore	S4
	Carol Lake concentrate	S4 2)
	Carol Lake pellets	S5 1)
	Cassinga pellets	S5
	Cassinga, fine ore	S4
	Cassinga, lump ore	S5 1)
	Cerro Bolivar ore	S4
	Coto Wagner ore	S5 2)
	Dannemora ore	S4
	El Pao, fine ore	S4
	Fabrica pellets	S5 1)
	Fabrica Sinter Feed	S5
	Fabrica Special pellet ore	S5
	F'Derik Ho	S4
	Fire Lake pellets	S5 1)
	Grängesberg ore	S4
	Hamersley Pebble	S5 1)
	Itabira Run of Mine	S5 1)
	Itabira Special sinter feed	S5
	Kiruna B, fine ore	S5
	Kiruna pellets	S5 1)
	Ilmenite ore	S5
	Malmberg pellets	S5
	Manoriver Ho	S4
	Menera, fine ore	S5
	Migrolite	S4
	Mount Newman pellets	S4
	Mount Wright concentrate	S4 2)
	Nimba ore	S4
	Nimba, fine ore	S5
	Pyrite ore	S4
	Robe River, fine ore	S5 1)
	Samarco pellets	S5 1)
	Sishen, fine ore	S5 1)
	Sishen, lump ore	S5 1)
	Svappavaara ore	S4
	Svappavaara pellets	S4
	Sydvaranger pellets	S5 1)
	Tazadit, fine ore	S5 1)
Kyanite		S4
Lime	chunks	S5
	ground	S1
Lime salt		S5
Nepheline		S3
Olivin stone		S4
Ore	chromium ore	S4
	copper ore	S4
	emery ore, chunks	S5
	iron ore (see Iron ore)	
	lead ore	S2
	manganese ore	S5 1)
	tantalite ore	S4
	titanium ore (see Titanium)	
	zinc blend	S4
Phosphate	moisture-free content >4 weight %	S4
Phosphate	moisture-free content <1 weight %	S1
Pig iron		S4
Polymer products	plastic powder	S1
Potash		S3
Pulse	beans	S3
	guar split	S3
	horse beans	S3
	lentil	S3
	lupine seed	S3
	peas	S3
	soya bean husk	S3
	soya beans	S3
	soya screenings	S3
	vetch	S3
Pumice		S5

	Product (specification)	Dispersion class
Pyrietas		S2
Pyrite cinder		S2
Pyrolusite		S2
Quicklime		S1
Road salt		S5
Sand	coarse sand [4]	S4
	fine sand	S2
	olivin sand	S4
	rutile sand (see Titanium)	
	silver sand	S3
	zircon sand	S3
Scoria, slag		S4
Scrap, metal		S4
Seeds and related products	canary seed	S5
	dariseed	S3
	kardiseed	S3
	linseed	S5
	millite seed	S5
	mustard seed	S5
	oilseed rape	S3
	paricum seed	S3
	poppy seed	S5
	rapeseed	S5
	safflower seed	S5
	sesame seed	S5
	sorghum seed	S5
	sunflower seed	S5
	tamarin seed	S3
Sillimanite		S5
Sinter magnesite		S3
Soda		S3
Soot		S1
Sugar		S5
Sulphur	coarse	S4
	fine	S1
Talk	crushed	S3
	ground	S1
Tapioca (see Derivates)		
Titanium	ilmenite	S5
	rutile	S3
	rutile sand	S3
	rutile slag	S5
Urea		S3
Vanadium slag		S4
Vermiculite	chunks	S3
	ground	S1
Wollastonite		S5

[1] Applies to storage; loading and unloading S4.
[2] Applies to storage; loading and unloading S5.
[3] Temporary classification.
[4] Including concret-, masonry- en filtersand voor de (fluid) concretel en prefab concrete industry.