



Toxic chemicals criteria

Greenpeace wants to see electronics companies clean up their act.

Substituting harmful chemicals in the production of electronics will prevent worker exposure to these substances and contamination of communities that neighbour production facilities. Eliminating harmful substances will also prevent leaching/off-gassing of chemicals like brominated flame retardants (BFR) during use, and enable electronic scrap to be safely recycled. The presence of toxic substances in electronics perpetuates the toxic cycle – during reprocessing of electronic waste and by using contaminated secondary materials to make new products.

Until the use of toxic substances is eliminated, it is impossible to secure 'safe' recycling. For this reason, the points awarded to corporate practice on chemicals (five criteria, double points for PVC – and BFR-free models) are weighted more heavily than criteria on recycling, because until the use of harmful substances is eliminated in products, it is impossible to secure 'safe', toxic-free recycling.

Where two companies score the same number of total points, the company with the higher score on the chemicals criteria will be ranked higher.

The electronics scorecard ranks companies on:

Chemicals policy and practice (5 criteria)

1. A chemicals policy based on the Precautionary Principle
2. Chemicals Management: supply chain management of chemicals via e.g. banned/restricted substance lists, policy to identify problematic substances for future elimination/substitution
3. Timeline for phasing out all use of vinyl plastic (PVC)
4. Timeline for phasing out all use of brominated flame retardants (not just those banned by EU's RoHS Directive)
5. PVC- and BFR-free models of electronic products on the market.

Policy and practice on Producer Responsibility for taking back their discarded products and recycling (4 criteria)

1. Support for individual (financial) producer responsibility – that producers finance the end-of-life management of their products, by taking back and reusing/recycling their own-brand discarded products.
2. Provides voluntary takeback and recycling in every country where its products are sold, even in the absence of national laws requiring Producer Responsibility for electronic waste.
3. Provides clear information for individual customers on takeback and recycling services in all countries where there are sales of its products.
4. Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled.

Click here to see more detailed information on the ranking

Ranking regrading: Companies have the opportunity to move towards a greener ranking as the guide is updated every quarter. However penalty points are deducted from overall scores if Greenpeace finds a company lying, practising double standards or other corporate misconduct.

Disclaimer: Greenpeace's 'Guide to Greener Electronics' aims to clean up the electronics sector and get manufacturers to take responsibility for the full life cycle of their products, including the electronic waste that their products generate. The guide does not rank companies on labour standards, energy use or any other issues, but recognises that these are important in the production and use of electronics products.

Ranking guide addition: We first released our 'Guide to Greener Electronics' in August 2006, which ranked the 14 top manufacturers of personal computers and mobile phones according to their policies on toxic chemicals and recycling.

In the sixth issue of the Guide, we added the leading manufacturers of TVs – namely, Philips and Sharp – and the game console producers Nintendo and Microsoft. The other market leaders for TVs and game consoles are already included in the Guide.

For the latest version [greenpeace.org/greenelectronics](https://www.greenpeace.org/greenelectronics)

A penalty point has been deducted from Nokia's overall score for corporate misbehaviour as a result of Greenpeace testing of the companies' takeback practice in the Philippines, Thailand, Russia, Argentina and India.

APPLE Ranking = 6.7/10

Apple continues to progress up the ranking to 9th position from 11th, having improved its score for the new models of MacBook and MacBook Pro with the majority of internal cables free of polyvinyl chloride (PVC) and the majority of circuit board laminates free of brominated flame retardants (BFRs). New iMacs are also sold with bromine-free casings and printed circuit board laminates as well as PVC-free internal cables. Many iPods now have bromine-free casings and printed circuit board laminates. The company has committed to eliminate all uses of PVC and BFRs in its products by the end of 2008. It also provides examples of additional substances that it plans to eliminate, with timelines, such as arsenic in LCDs and mercury. But Apple still needs to provide a strong commitment to the principles of precaution and Individual Producer Responsibility, post its Restricted/Banned Substance list on the web and improve geographical coverage of its take-back programmes.

APPLE Overall Score

	BAD (0)	PARTIALLY BAD (1+)	PARTIALLY GOOD (2+)	GOOD (3+)
Precautionary Principle				
Chemicals Management				
Timeline for PVC phaseout				
Timeline for BFR phaseout				
PVC-free and/or BFR-free models (companies score double on this criterion)				
Individual producer responsibility				
Voluntary takeback				
Information to individual customers				
Amounts recycled				

APPLE Detailed Scoring

Chemical Score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Precautionary Principle		Definition of precautionary principle reflects poor understanding of this principle in chemical policy. More information.		
Chemicals Management			Apple provides examples of additional substances that it plans to eliminate with timelines e.g. arsenic in LCDs and mercury by moving to LEDs. Apple has added beryllium to its list of substances targeted for phase out, but so far without a timeline. It also provides Material Safety Data Sheets for its product portfolio. However Apple still fails to disclose it Substance Specification 069-0135. More information.	
Timeline for PVC phaseout				Apple plans to completely eliminate the use of PVC in its products by the end of 2008. More information here and here.
Timeline for BFR phaseout				Apple plans to completely eliminate the use of brominated flame retardants by the end of 2008. More information here and here.
PVC-free and/or BFR-free models (companies score double on this criterion)			All new iMacs and the MacBook Air have bromine-free enclosures and printed circuit board laminates as well as PVC-free internal cables. Millions of iPods now have bromine-free enclosures and printed circuit board laminates. More information. The MacBook Air also has mercury free LCD display with arsenic-free glass. More information. Also MacBook Pros with mercury-free LED backlit displays in Chronology. More information. New models of MacBook and MacBook Pro have the majority of internal cables PVC-free and majority of circuit board laminates free of BFRs. More information here and here.	

APPLE Detailed Scoring

EPR/recycling score	BAD	PARTIALLY BAD	PARTIALLY GOOD	GOOD
Support for Individual Producer Responsibility		Apple refers to its "individually responsible approach" to recycling through its own takeback initiatives and national collective take-back programmes. The definition of IPR needs to be more explicit. More information.		
Provides voluntary takeback where no EPR laws exist			Most of Apple's voluntary takeback programmes are in US and Canada including free recycling for iPods & mobile phones of all brands. New free recycling of old monitors and PCs of any brand from Apple stores & online sales (seems to be still US only). Apple product batteries takeback (US only)	
Provides info for individual customers on takeback in all countries where products are sold		Information to customers in US and 'Old Europe' is much improved, but what about the 'New Europe' and customers outside US? More information here and here . US & Canada. Europe. Japan. Taiwan.		
Reports on amount of waste electrical and electronic equipment (WEEE) collected and recycled				Apple scores top marks for reporting its recycling rate as a percentage of sales 7 years ago. In 2006, Apple recycled 9.5% of the weight of all products sold seven years earlier and has set goals to recycle 13% in 2007, 20% in 2008 and nearly 30% in 2010. More information.