



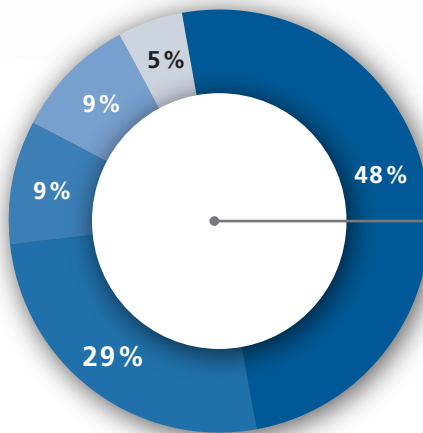
When Formulating with Natural Colors, Add Some Peace of Mind.

SENSIENT'S CERTASURE™ Natural Color Certification Program Makes Self-Certification EASY



PRODUCT RECALLS ON THE RISE.

Sensient's Certasure™ Program provides a combination of supply chain security, full traceability, and the most stringent raw material testing protocol in the industry, all done at fully equipped QC laboratories to ensure that a natural color meets all requirements. **Every single time.**



*Of the 36 members responding, 58% had experienced at least one product recall event during the past five years. 52% of those recalls had an estimated financial impact to the company of greater than \$9 million with 14% reporting an estimated loss of greater than \$50 million.

What do you estimate the financial impact (sales losses, direct recall costs, etc.) to your company was as a result of the recall?



Source: GMA Capturing Recall Costs-Measuring and Recovering Losses



SENSIENT®

Define and protect your brand

SENSIENTFOODCOLORS.COM

Self-Certification Assurance:

- **Supply security and certification**

- Full traceability on raw materials
- Vendor certification program

- **Stringent raw material testing protocol -**

Three samples are evaluated from three separate supplier production lots for **all** raw materials received.

- Pesticides - *Sensient tests for over 200 different types*
- Heavy Metals – *Sensient tests for the four most common heavy metals*
- Microbiological – *Sensient tests for five contamination possibilities*
- Adulteration
- Unauthorized solvents

- **Fully equipped QC laboratories to ensure product quality and consistency throughout manufacturing process**



The **FDA** has No Clear Specifications for colors from **Natural Sources**

Process	FD&C Yellow 6 Azo reaction of Schaffer salt and sulfanilic acid	Fruit Juice Expression of juice from fresh fruit or water infused of the dried fruit
Total color	87% min	
Sum of volatile matter (at 135 deg. C) and chlorides and sulfates (calculated as sodium salts)	13% max	
Water insoluble matter	0.2% max	
Unreacted intermediates		
Sodium salt of 4-aminobenzenesulfonic acid	0.2% max	
Sodium Salt of 6-hydroxy-2-naphthalenesulfonic acid	0.3% max	
Disodium salt of 6,6'-oxybis[2-naphthalenesulfonic acid]	1% max	
Disodium salt of 4,4'-[1-triazene-1,3-diyl]bis[benzenesulfonic acid]	0.1% max	
Subdyes		
Sum of the sodium salt of 6-hydroxy-5-(phenylazo)-2-naphthalenesulfonic acid and the sodium salt of 4-[(2-hydroxy-1-naphthalenyl)azo]benzenesulfonic acid	1% max	
Sum of the trisodium salt of 3-hydroxy-4-[(4-sulfophenyl)azo]-2,7-naphthalenedisulfonic acid and other higher sulfonated subsidiaries	5% max	
Potentially carcinogenic compounds		
4-Aminoazobenzene	50 ppb	
4-Aminobiphenyl	15 ppb	
Aniline	250 ppb	
Azobenzene	200 ppb	
Benzidine	1 ppb	
1,3-Diphenyltriazene	40 ppb	
1-(Phenylazo)-2-naphthalenol	10 ppb	
Heavy Metals		
Lead (as Pb)	2 ppm	
Arsenic (as As)	3 ppm	
Mercury (as Hg)	1 ppm	
Cadmium (as Cd)	1 ppm	

Little FDA Oversight

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