

RSLs – What and Why?

Sean Cady Levi Strauss & Co.

- Legislation
- Non-Governmental **Organization**
- Health and Environment





























What is an RSL? Why?



Chemical substances either:

- Prohibited from use
- Limited in the product
- Restricted in manufacturing

- Legislation
 - NGO
- Consumer / worker protection





























Chemicals



- Critical for consumer products
 - Unique properties
 - Unique purpose

 Where does the chemical end up?





















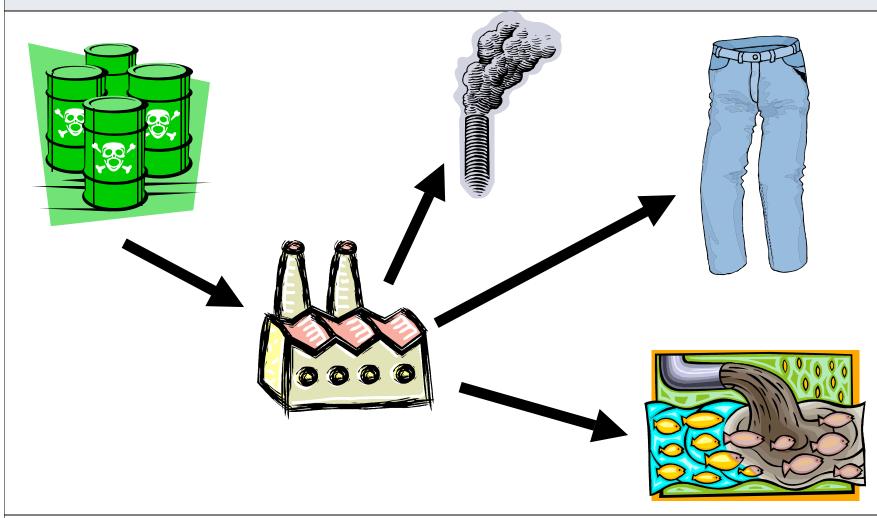








End of Life

































Focus on Product

RSL Focus

- Chemical on product
 - Day
 - Night
 - Direct skin contact

Why?





























Important?



- Product safety
- Responsibility
- Comply with legislation
 - Brand image



















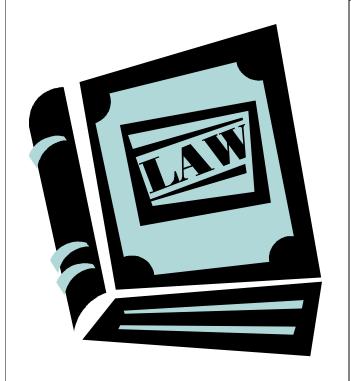








Legislation



Formaldehyde

 China, Japan, Russia, South Korea, EU Countries

Limit for product:

Indirect: 150 ppm

Direct: 75 ppm

Baby: 20 ppm *





























Non-Governmental Organizations



Oeko-Tex

More restrictive on dyes

Azo amines: 2 more than EU

Disperse dyes: 12 more than EU





























































Oeko-Test

Poisonous Cord



Found: 408 ppm benzidine

• Law: 30 ppm

In the blue cord of a child's sweater, the quantities of aromatic amines were so high that it should not be sold.

































Consumer Protection

Types of consumer reactions:

- Skin irritation
- Sensitization
 - Cancer
- Respiratory irritation

Dyes, Resins, Solvents





























Environmental Protection



Chemicals into environment:

Air

Water

Soil

- APEOs
 - Dyes
- Flame Retardants





















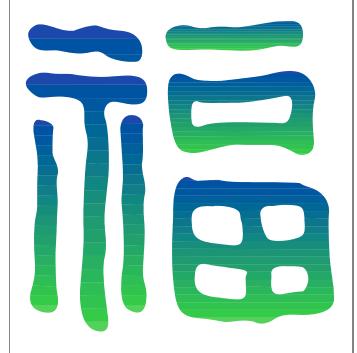








Summary



RSLs Help To:

- Comply with the law
- Protect the consumer
- Protect the environment
 - Meet NGO concerns
 - Protect business



























