

# Green Product Management System

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WHEN YOU NEED TO BE SURE

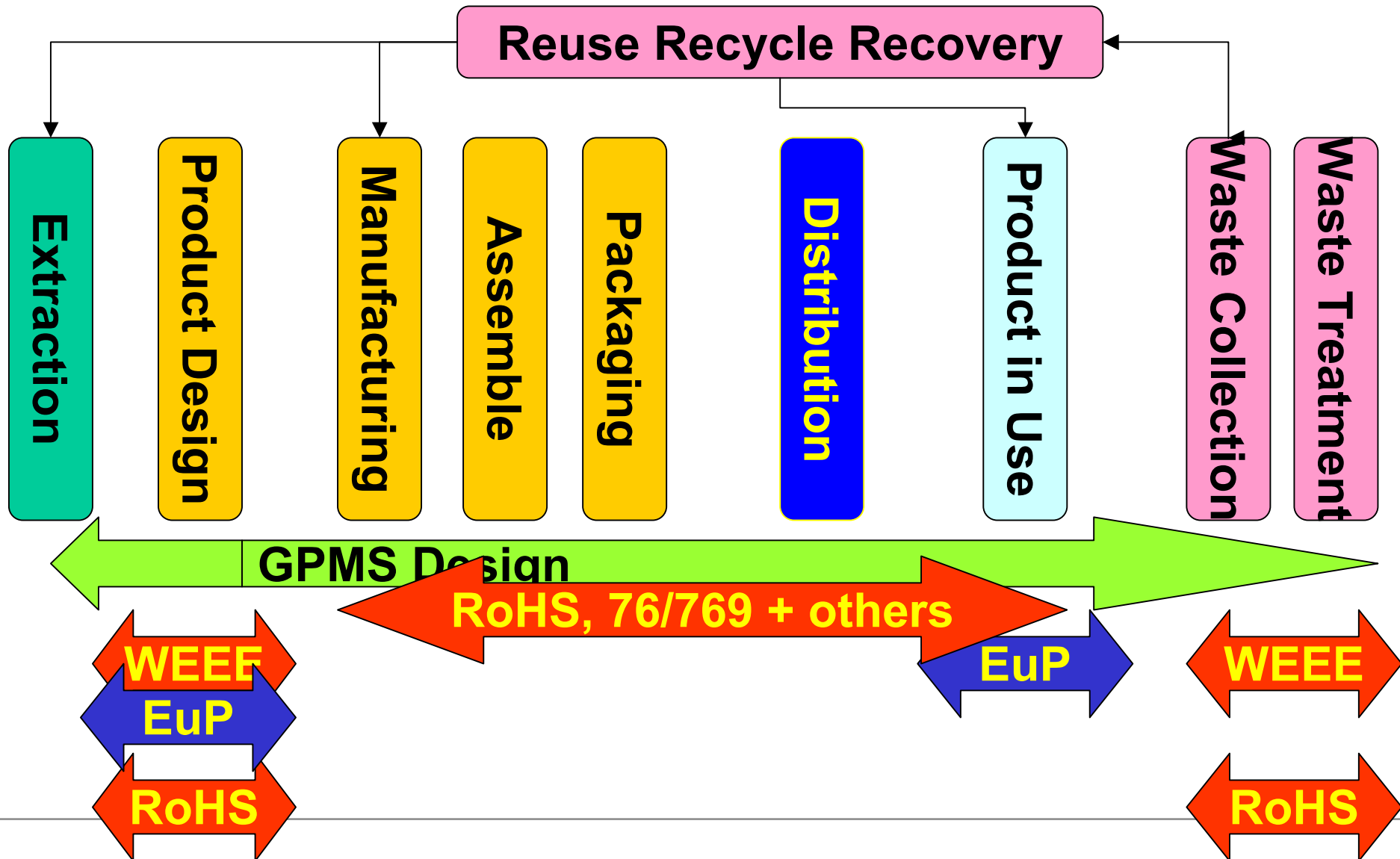




# What is a green product?

- Type 1, Seal of approval (ISO 14024)
- Type 2, Self-declared (ISO 14021)
- Type 3, Life cycle based (ISO 14025)

## LCA Considerations





# Even big corporation made mistakes!

## Management of Chemical Substances in Products

CSR Report 2003

In October 2001, Dutch authorities determined that the level of cadmium was above the limit allowed under Dutch regulations for Sony's PS one game consoles. To prevent any recurrence of similar problems involving the use of chemical substances in products, Sony has revised its policies and rules that govern such matters. A management system has also been put in place across the entire company.

### Chemical Substances in Products: Three Core Principles

The cadmium contamination issue in 2001 generated a wide range of corrective and preventative measures within Sony. Related spending and losses have totaled approximately ¥10 billion by March 31, 2003. Besides replacement of the parts with excessive cadmium levels, Sony invested

in measurement devices to prevent a recurrence of any problems involving levels of chemical substances in products. The company also revised internal rules and established the Green Partner Environmental Quality Approval Program to be implemented by all companies as well as manufacturing sites.

## Supply chain management

# Ignorance leads to errors

- “We are very lucky. I have gone through the lengthy list and didn’t find anything...”
- “We have supplier guarantees and all our suppliers are customer approved...”
- ICP reports
  - heavy metal tests, no organic substances coverage
- PBB, PBDE reports on metals
  - Metals were never present in PBB, PBDE
- Fake WEEE / RoHS compliance certificates

## Staff Awareness



# Customers requirements are complicated!

	Cd	Pb	Hg	Cr6	PBB	PBDE	Reference
Sony	5*	100*			0	0	SS-00259
Mircosoft	25	100	5	100	100		H00594
Panasonic	75	100	100	100	0		Ver 3
Motorola	100	100	100	100	100		GS2257
NEC	100	0	0	0			Ver 2
IBM	100	1000	10	1000			ES45G3772
TCO	2	50	2		0.5% HFR		Ecology Checklist
Batteries	250	400	250				91/157/EEC
Packaging	100	100	100	100			94/62/EEC
Paints, Plastic and Stablizer	50	300		100			89/677/EEC
ELV	100	1000	1000	1000			2000/53/EEC
RoHS	100	1000	1000	1000	1000	1000	2002/95/EEC

## Good customers / legal requirements management

# SGS Sustainability development

- 5th Environmental Action Program
- Global warming
- Ozone layer depletion
- Resources depletion
- etc

Design for environment

# SGS Scope of GPMS

- An effective Green Supply Chain Management
- A structured Staff Awareness Program
- A Good Legal and Customer Requirements Management mechanism
- Environmental conscious Product Design





# Green Supply Chain Management

- Identification and prioritization of client environmental requirements
- Green Procurement
- Green BoM and database development & maintenance
- Supplier education and partnership
- Enhanced receiving inspection
- Chain of custody management

# Design for environment

## ■ Material considerations

- Material intensity
- Toxic, Banned, Restricted Substances
- Recycled, renewable materials
- Recyclability, Recoverability
- Ease of disassembly

## ■ Energy use considerations

- Energy intensity
- Renewable energy

## ■ Life cycle considerations

- Life cycle environmental impacts
- Long lasting and durable

# Awareness Development

- Understanding in principle the importance of sustainable development
- Understanding on the requirements stipulated in WEEE / RoHS / EUP and customers
- Understanding on potential contamination of green products
- Establishment of eco-design as part of corporate design objectives and requirements
- Awareness on sources and routes of restricted and banned substances
- Supply chain education
- Follow up and updating developments in WEEE / RoHS / EUP and related legislations

# SGS

# GPMS

# Certification

# SGS

Certificate TW04/0001GPMS

The green product management system of

**Toppoly Optoelectronics Corp.**

No.12, Ke Jung Rd., Science-Based Industrial Park,  
Chu-Nan 350, Miao-Li County, Taiwan

has been assessed and comply with meeting the requirements of

**SGS GPMS CRITERIA**

For the following activities / Products

**The Design and Manufacture of Low Temperature Poly Silicon &  
Amorphous Silicon Thin Film Transistor Liquid Crystal Display  
including LTPS OLED/PLED and other Application.**

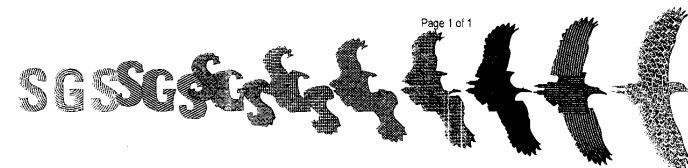
Regarding restriction of the use of certain hazardous substances.

It is valid from 24 September 2004 until 23 September 2007  
with successfully continuous surveillance.

Authorised by

SGS Taiwan Ltd. Systems & Services Certification  
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# SGS MSDS Management

## ■ Create a MSDS according to EU Directive 2001/58/EC

### 物質安全資料表

序 號: 2

第1頁/5 頁

#### 一、 物品與廠商資料

物品名稱: 醋酸(ACETIC ACID)
物品編號: —
製造商或供應商名稱、地址及電話: —
緊急聯絡電話/傳真電話: —

#### 二、 成分辨識資料

純物質:
中英文名稱: 醋酸(ACETIC ACID)
同義名稱: 乙酸、冰醋酸(GLACIAL ACETIC ACID、ETHANOIC ACID、ETHYLIC ACID、METHANECARBOXYLIC ACID)
化學文摘社登記號碼 (CAS No.): 00064-19-7
危害物質成分 (成分百分比): 100

#### 三、 危害辨識資料

嚴重 危害	健康危害效應: 吸入或吞食有害, 蒸氣會刺激呼吸道, 引起肺部傷害, 濃溶液會腐蝕眼睛和皮膚, 引起永久眼睛受損如失明和皮膚灼傷, 包括組織壞死和結疤。吸入或嘔吐時可能倒吸入肺部。
環境 效應	環境影響: 醋酸的存在遍及整個自然界如動植物的一般代謝物。 物理性及化學性危害: 16°C為澄清、無色的液體, 16°C以下則為無色冰狀之固體。有很強的醋味且易潮解, 其蒸氣和液體可燃, 蒸氣比空氣重會傳播至遠處, 遇火源可能造成回火。
特殊 危害	特殊危害: —
主要 症狀	主要症狀: 刺激感、支氣管發炎、肺腫水、灼傷、吐血、腎損害、結膜炎、牙齒珐瑯質腐爛
物品 危害 分類	物品危害分類: 8(腐蝕性物質), 3 (易燃液體)

#### 四、 急救措施

不同暴露途徑之急救方法：	
吸入	1.施救前先做好自身的防護措施，以確保自身的安全。2.移除污染源或將患者移至新鮮空氣處。3.如果呼吸困難，於醫師指示下由受過訓練的人供給氧氣。4.避免患者不必要的移動。5.肺水腫的症狀可能延遲達 48 小時。6.立即就醫。
皮膚接觸	1.必要時則戴防護手套以避免觸及該化學品。2.以溫水緩沖洗受污染部位 20-30 分鐘。3.如果刺激感持續，反覆沖洗。4.沖水中脫掉受污染的衣物、鞋子和皮飾品。5.立即就醫。6.需將污染的衣物、鞋子以及皮飾品須完全洗淨除污後方可再用或丟棄。
眼睛接觸	1.必要時則戴防護手套以避免觸及該化學品。2.立即將眼皮撐開，以緩和流動的溫水沖洗污染的眼睛 20 分鐘。3.可能情況下可使用生理食鹽水沖洗，且沖洗時不要間斷。4.避免清洗水進入未受影響的眼睛。5.如果刺激感持續，反覆沖洗。6.立即就醫。
食入	1.若患者即將喪失意識、已失去意識或痙攣，不可經口餵食任何東西。2.若患者意識清楚，讓其用水徹底漱口。3.切勿催吐。4.給患者喝下 240-300 毫升的水，以稀釋胃中的化學品，若有牛奶可於喝水後在給予牛奶喝。5.若患者自發性嘔吐，讓其身體向前傾以減低吸入危險，並讓其漱口及反覆給水。6.若呼吸停止立即由受過訓練人員施予人工呼吸，若心跳停止施行心肺復甦術。7.立即



# Environmental / Sustainability Reporting Verification

