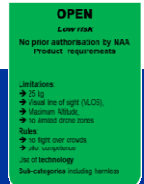




The use of Product legislation

Workshop 24 October 3026

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Open category principles

- ➔ **No authorisations required from aviation authorities**
 - Buy and fly according to the rules
- ➔ **Operators with limited skills**
- ➔ **Consumer/Prosumer products sold in retail shop/internet**
- ➔ **Safety is ensured through**



How can we achieve this without NAAs' involvement?

Operations limitations and rules

- ✓ Maximum altitude and distance (VLOS),
- ✓ No-fly zones, registration
- ✓ No fly over crowd, safety distance, etc.
- ✓ Pilot competence (e-learning)



Requirements on the UAS supporting limitations and enforcement

- ✓ limiting the **performance** of the drone (incl. mass),
- ✓ imposing specific **functionalities** (identification, geo-fencing, etc)

Only compliant products must be accessible to consumers



Existing product requirements

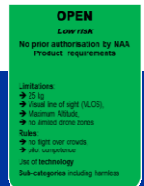
➔ *The following directives apply:*

- R&TTE directive 1999/5/EC
(replaced by RED 2014/53/EU)
- EMC directive 2004/180/CE
- Toys directive 2009/48/EC
- ROHS directive 2011/65/CE
- General product safety
directive 2001/95/CE



➔ *Community harmonization legislation procedures*

- Regulation (EC) 765/2008 (accreditation, market surveillance and CE marking)
- Decision 768/2008 (conformity assessment procedures, etc)



Open category principles

➔ **No authorisation required from aviation authorities**

➤ Buy and fly (according to the rules) principle



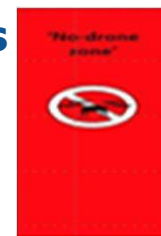
Operators with limited skills

Consumer/Prosumer products sold in retail shop/internet

Safety is ensured through

➤ **Operations limitations and rules**

- ✓ Maximum altitude and distance (VLOS),
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Communi
ty
harmonis
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legislatio
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➤ **Requirements on the UAS supporting limitations and enforcement**

- ✓ limiting the **performance** of the drone (incl. mass),
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Solution for product conformity in the Open category

EASA Basic Regulation revision :

Article 46 - Compliance of Unmanned Aircraft

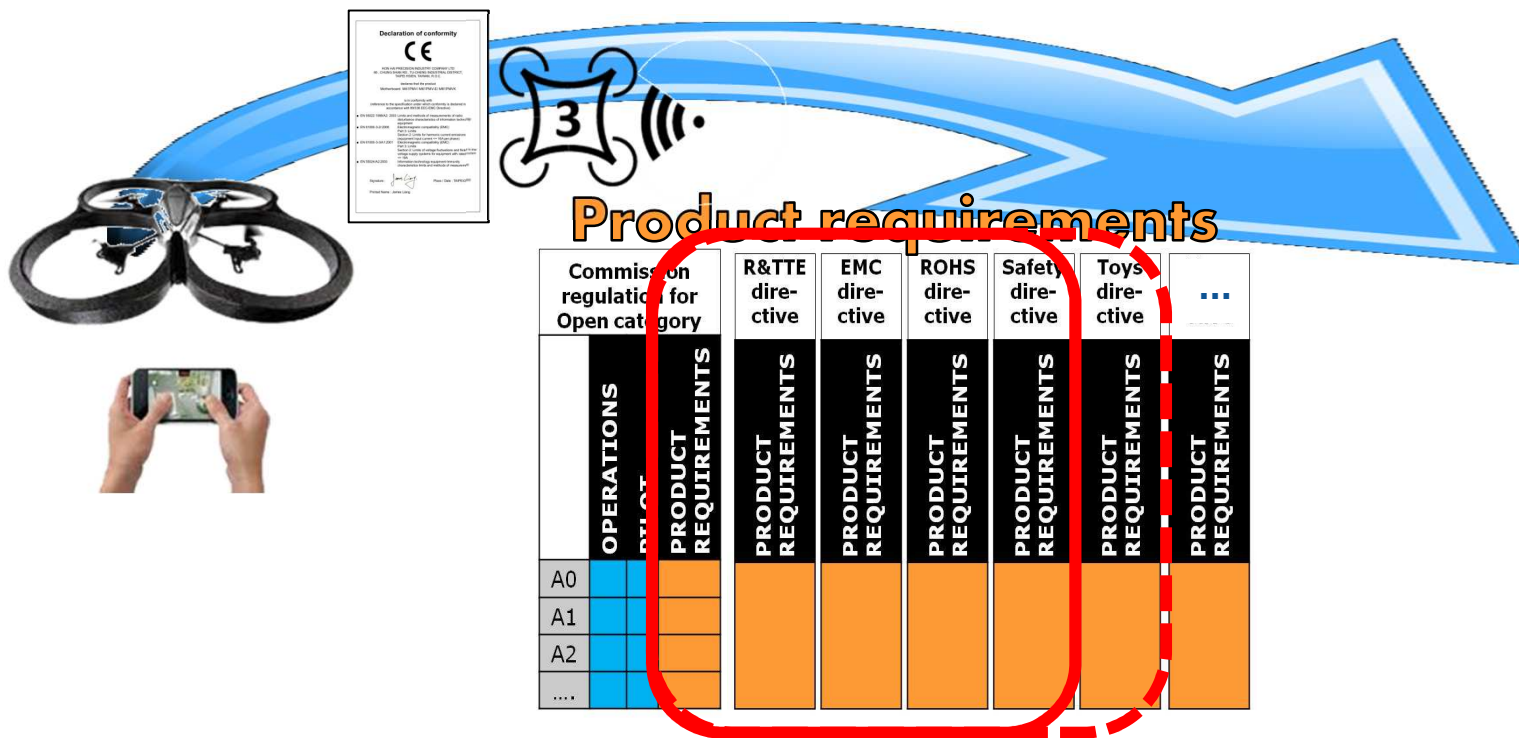
3. Where the delegated acts adopted pursuant to Article 47 **so provide**, given that adequate levels of safety can be achieved without the application of **Chapters IV [on certification] and V [on EASA]** of this Regulation, those Chapters **shall not apply** to the essential requirements referred to in Article 45 and the corresponding detailed rules established in accordance with Article 47 **to ensure compliance with these essential requirements.**

No
application of
aviation
approach

In such cases, those requirements and rules shall constitute 'Community harmonisation legislation' within the meaning of Regulation (EC) 765/2008 of the European Parliament and Council of 9 July 2008 setting out the requirement for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) N° 339/93, and Decision 768/2008/EC of the European Parliament and Council of 9 July 2008 on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC.

Compliance
to product
requirements
through CE
marking

CE In summary: how will CE marking apply ?



OPEN

Low risk

No involvement of Aviation Authority

- Operational Limitations
- > Visual line of sight
 - > Maximum Altitude
 - > Distance from airport and sensitive zones
 - > Flights over crowds not permitted except for harmless subcategory

Product requirements



SPECIFIC

Increased risk

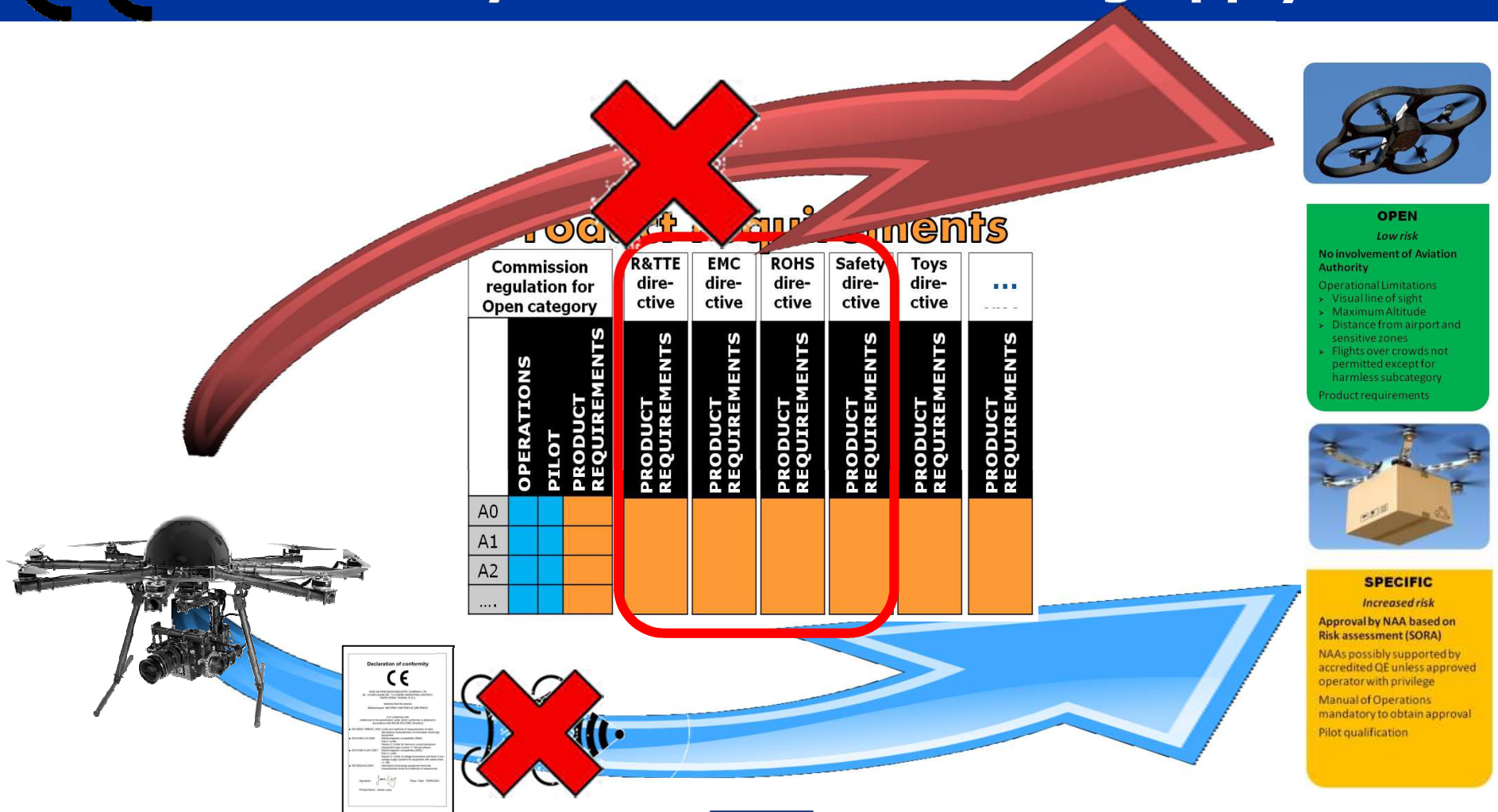
Approval by NAA based on Risk assessment (SORA)

NAA's possibly supported by accredited QE unless approved operator with privilege

Manual of Operations mandatory to obtain approval

Pilot qualification

CE In summary: how will CE marking apply ?





Summary of harmonization legislation tools

➡ ***Essential requirements***

- Must be defined in legislation

➡ ***Conformity***

- Demonstration under the responsibility of the **manufacturer**
- **Procedures for conformity assessment** defined in legislation
- May involve **notified bodies**
- Voluntary use of **harmonized standard** (compliance presumption)
- Leading to **declaration of conformity and CE marking** : will also help customers to identify products compliant with EU regulation

➡ ***Enforcement***

- **Market surveillance** is the responsibility of MS
- Performed by **authorities** designated by MS
- **Withdrawal** of article presenting serious risks from the market

Economic operators' responsibilities

➔ **Manufacturers**

- Are sole **responsible** for the conformity of their products and its demonstration
- Draw up required **technical documentation**
- Carry out **conformity assessment**
- **Maintain conformity** of series production
- Provide **instructions and safety information**
- Affix **CE marking** and make Certificate available
- Act in case of placing **non conform product** on the market and cooperate with market surveillance authorities

Important when there is no link between manufacturer and operator (what about some scenarios?)

➔ **Importers, distributors**

- Place only compliant products on the market
- Act as intermediaries



Simplified overview of conformity assessment Modules

- ➔ **Modules are provided by Decision 768/2008/EC**
- ➔ **Selection by regulator according to Article 4.1**
 - Nature of the risk, proportionality, consistency with other requirements, choice between QA and certification, etc.

Design	Production
A : Conformity to requirements assessed by Manufacturer	
B : Type examination certificate issued by a Notified Body	C : Conformity to type assessed by Manufacturer
	D : C + manufacturer operating a certified QA system for production (by Notified Body or ISO 9001)
	E : C + manufacturer operating a certified QA system for final inspection (by Notified Body or ISO 9001)
	F : Conformity to type assessed by Notified Body
G : Conformity to requirements assessed by Notified Body	
H : A + Manufacturer operating a full QA system (design & production)	



Notified bodies

- ➔ ***Capacity to conduct a specific conformity assessment activity **certified** and **monitored** by MS***
 - Through accreditation or otherwise
- ➔ ***Capacity the **notified** to EC and other MS***
- ➔ ***Perform***
 - EU-type examination certificate
 - Conformity assessment
 - Approval of manufacturer's QA system
- ➔ ***Information obligation about delivery/withdrawal of certificates/approvals issued and share of experience***



Use of standards in conformity assessment

➞ **A *harmonised standard***

- is a European standard developed by a recognised European Standards Organisation: CEN, CENELEC, or ETSI.
- is created following a request from the EC to one of these organisations

➞ **It creates a *set of accepted methods in the EU* and provides a '*presumption of conformity*' with essential requirements**

- If the references has been published in the Official Journal of the EU
- Manufacturer must only demonstrate conformity with the standard
- Regulator may allow the use of Module A

➞ **The use of harmonised standards is *not mandatory***

- When a manufacturer chooses not to apply a harmonised standard he needs, on the basis of his own risk assessment, to indicate in his technical documentation how the compliance is reached.

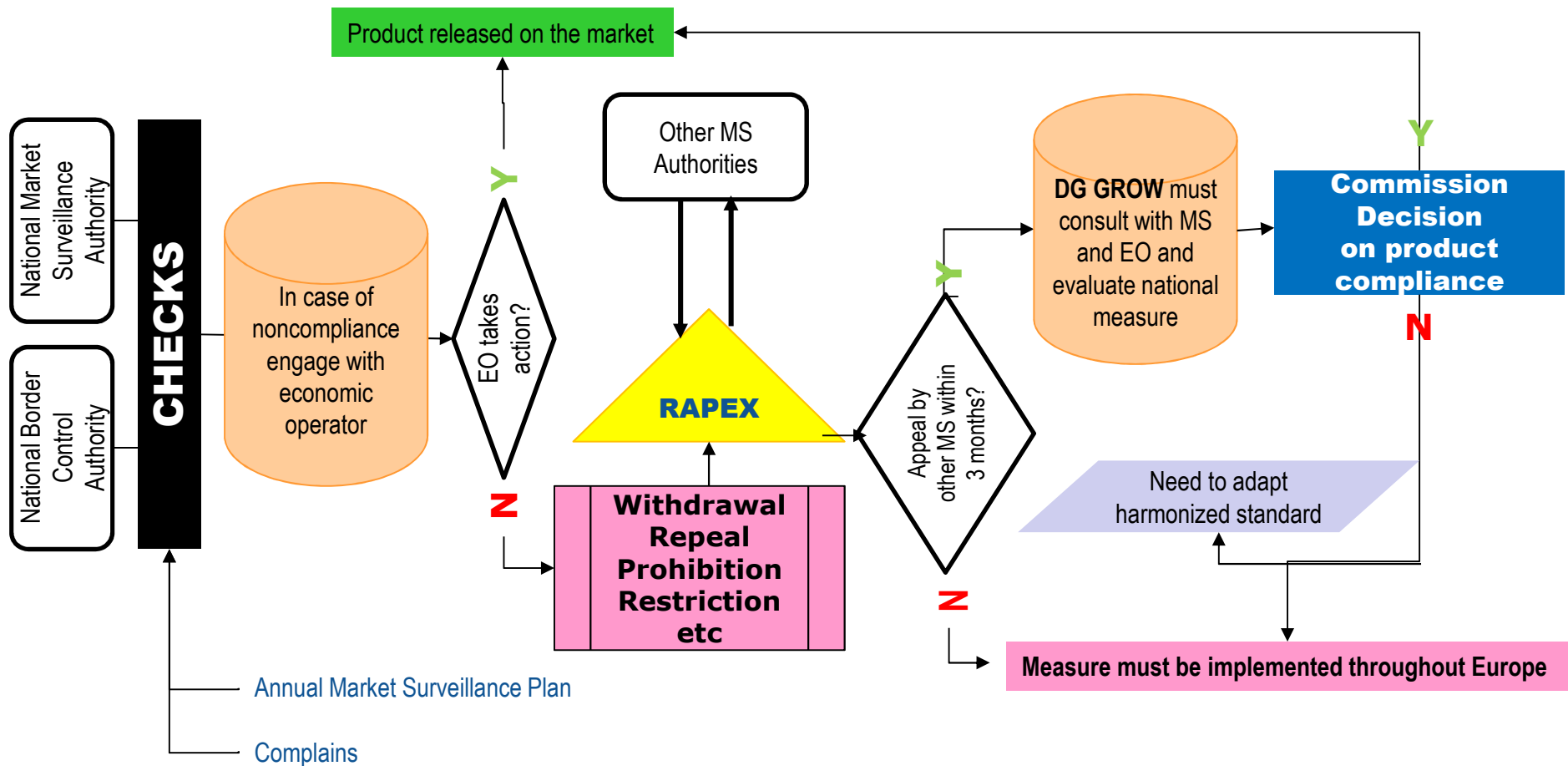
➞ **Existing *cooperation between standardisation bodies***

- ASD-STAN /CEN for , EUROCAE and CEN/CENELEC/ETSI, ETSI/ISO, CEN/ISO

➞ **Need of one standard covering all UA in the open category**

- + e-identification, geo-fencing (?)
- Cover also applicable directives
- May take > 4 years (guidelines may be first developed)

Market surveillance



Drones' compliance with R&TTE directive

➔ **Market surveillance authorities from 16 MS have controled drone compliance in 2015**



Table 1: RPAS' information

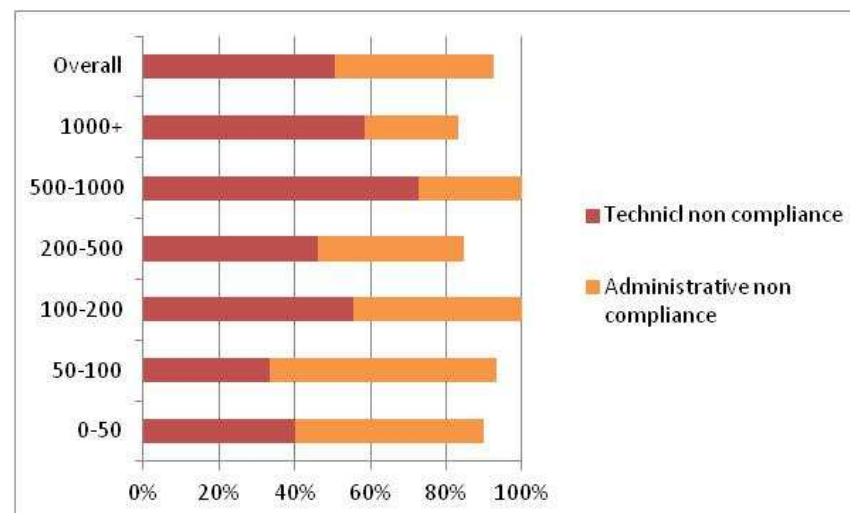
Price range [EUR]	Quantity	Toy	Auto landing function	Remote control freq. [GHz]		Video & audio link freq. [GHz]		Telemetry link freq. [GHz]	
				2,4	5,8	2,4	5,8	2,4	5,8
0-50	10	2	2	10					
50-100	15	4	1	15		1			
100-200	18	6	3	18		5	4	5	
200-500	13	5	3	12	1	2	5	1	
500-1000	11	1	7	8	3	3	6	6	
1000+	12	1	8	9	3	5	5	3	
Overall	79	19	24	72	7	16	20	15	0

92% non-compliance


↳ **51% technical non-compliance**

↳ **30% excessive power of video signal**


↳ **20% spurious emission due to bad component**



Example of market surveillance actions



4 of 4 photos [Previous](#) [Next](#)

Alert Number: A12/1206/15 

Category: Hobby/sports equipment


Product: [Quatrocopter](#)

Brand: SYMA

Name: 4 CH Remote Control Quatrocopter

Type/Number of Model: X8C VENTURE

Batch Number/Barcode: Unknown



1 of 1 photo

Alert Number: 0

Category: Toys

Product: R/C Helicopter

Brand: Unknown

Name:

Type/Number of Model: Item Number: QS8005 AC/DC Adaptor Model; MJ-12800 Input: AC 110-240 50/60 Hz. Output: DC 12v 800mA

Batch Number/Barcode:

Risk: Electric shock, Fire

The product poses a risk of: - fire because, due to internal short circuit, when connected to the mains supply, several components can fail and internal wiring can melt, - electric shock, because the conductors are not mechanically retained and there are no barriers to prevent a detached wire from reducing creepage distances and clearances. In addition the pins are incorrect. The product does not comply with the Low Voltage Directive (LVD) and the relevant European standard EN 61558.

Measures ordered by public authorities: Withdrawal from the market ordered by the authorities and destruction.

**From the Rapid Alert
System for dangerous
non-food products
(RAPEX) database**

**CHECK OUT OUR
WEB SITE!**



Thank you!