Rolling Sphere Technologies CONFIDENTIAL - INTERNAL USE ONLY

Hazardous Substances Compliance Report

Professional Regulatory Analysis for EU/RoHS/REACH Compliance

[COMPANY LOGO PLACEHOLDER]

Executive Summary

This compliance report analyzes laptop manufactured in Germany for regulatory requirements in target market(s): Japan, United States, China, South Korea.

Analysis Results:

Total components analyzed: 4Compliant components: 2

• Non-compliant components: 2

• Compliance rate: 50%

Overall status: ACTION REQUIRED

IMMEDIATE ACTION REQUIRED

Business Context

Company Role:	Producer
Company Location:	Germany
Target Markets:	Japan, United States, China, South Korea
Product Category:	Computing & Telecommunications
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Product Information

Product Description:	laptop
Product Category:	Computing & Telecommunications
Product Type:	Computing & Telecommunications

Expected Volume:	< 1,000 units

Applicable Regulations

Regulation	Authority	Status	Priority
RoHS Directive	Government Authority	Active	Standard
REACH	Government Authority	Active	Standard
WEEE Directive	Government Authority	Active	Standard
EMC Directive	Government Authority	Active	Standard
Packaging Directive	Government Authority	Active	Standard
Radio Equipment Directive	Government Authority	Active	Standard
Japan RoHS	Government Authority	Active	Standard
Japan WEEE	Government Authority	Active	Standard
PSE Certification	Government Authority	Active	Standard
VCCI Standards	Government Authority	Active	Standard
MIC Type Approval	Government Authority	Active	Standard
California Proposition 65	Government Authority	Active	Standard
TSCA	Government Authority	Active	Standard
FCC Regulations	Government Authority	Active	Standard
CPSIA	Government Authority	Active	Standard
FCC Part 15	Government Authority	Active	Standard
China RoHS	Government Authority	Active	Standard
CCC Certification	Government Authority	Active	Standard
GB Standards	Government Authority	Active	Standard
China WEEE	Government Authority	Active	Standard
CCC for IT Equipment	Government Authority	Active	Standard
SRRC Approval	Government Authority	Active	Standard
Korea RoHS	Government Authority	Active	Standard
K-REACH	Government Authority	Active	Standard
WEEE Korea	Government Authority	Active	Standard
KC Certification	Government Authority Active S		Standard
KCC Approval	Government Authority	Active	Standard

Materials Analysis

Detailed analysis of 4 components:

	Component	Substance	Concentration (ppm)	Legal Limit (ppm)	Status	Risk Level	CAS Number	Notes
LO	D Display 15.6 in	ch Lead (Pb)	850.0	1000	COMPLIANT	Medium Risk	7439-92-1	Within acceptable limits
	Lithium Battery	Cobalt	12000.0	1000 N	ON-COMPLIAN	T High Risk	7440-48-4 E	xceeds limit by 11000.0 ppm
	Plastic Housi Bo oi	minated Flame Retard	ants 2500.0	1000 N	ON-COMPLIAN	T High Risk	N/A	Exceeds limit by 1500.0 ppm
	CPU Processor	Gold	45.0	1000	COMPLIANT	Low Risk	7440-57-5	Within acceptable limits

Compliance Summary

Overall Status:	ACTION REQUIRED
Components Analyzed:	4
Regulations Applied:	27
Verified Sources:	65
Analysis Date:	2025-08-22

Specific Recommendations

- 1. Contact CATL immediately about Cobalt levels (12000.0 ppm exceeds 1000 ppm limit)
- 2. Contact Foxconn about Brominated Flame Retardants (2500.0 ppm exceeds 1000 ppm limit)
- 3. Implement emergency supplier audit for non-compliant components
- 4. Request alternative materials from suppliers within 48 hours
- 5. Conduct dual-jurisdiction compliance review (EU manufacturing + USA market entry)
- 6. Prepare separate compliance documentation for EU and USA requirements
- 7. Schedule urgent review with regulatory compliance team

Multi-Jurisdiction Regulatory Framework

This analysis covers manufacturing (Germany) and market entry requirements for: Japan, United States, China, South Korea.

EUROPEAN UNION REGULATIONS (Manufacturing Location: Germany)

RoHS Directive (2011/65/EU)

The Restriction of Hazardous Substances (RoHS) Directive restricts the use of specific hazardous materials found in electrical and electronic products. Applies to products manufactured or placed on the EU market.

Substance	Chemical Symbol	Limit (ppm)	CAS Number
Lead	Pb	1000	7439-92-1
Mercury	Hg	1000	7439-97-6
Cadmium	Cd	100	7440-43-9
Hexavalent Chromium	Cr6+	1000	18540-29-9
Polybrominated biphenyls	PBB	1000	Various
Polybrominated diphenyl ethers	PBDE	1000	Various
Bis(2-ethylhexyl) phthalate	DEHP	1000	117-81-7
Benzyl butyl phthalate	BBP	1000	85-68-7
Dibutyl phthalate	DBP	1000	84-74-2
Diisobutyl phthalate	DIBP	1000	84-69-5

REACH Regulation (1907/2006)

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) requires companies to identify and manage risks linked to chemicals. For Substances of Very High Concern (SVHC), the threshold for notification is 1000 ppm (0.1% by weight) in articles.

JAPAN REGULATIONS (Target Market: Japan)

Japan RoHS (J-Moss)

Japan RoHS (J-Moss) restricts hazardous substances in electrical equipment. PSE certification and VCCI approval are required for electronics sold in Japan. MIC type approval needed for telecommunications.

UNITED STATES REGULATIONS (Target Market: United States)

California Proposition 65

The Safe Drinking Water and Toxic Enforcement Act requires businesses to provide warnings about significant exposures to chemicals that cause cancer, birth defects, or reproductive harm. Over 900 chemicals are listed.

TSCA - Toxic Substances Control Act

EPA regulates the introduction of new or already existing chemicals in commerce. Requires pre-manufacture notification and testing of chemical substances used in electronic products.

Regulation	Key Requirements	Substances of Concern
Proposition 65	Warning labels required	Lead, Cadmium, Phthalates, BPA
CPSIA	Lead limit: 100 ppm (children)	Lead in accessible components
TSCA	Pre-manufacture notification	Industrial chemicals

FCC	EMC compliance	RF emissions, safety

CHINA REGULATIONS (Target Market: China)

China RoHS (GB/T 26572)

Management Methods for the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Products. Similar to EU RoHS but with specific Chinese requirements and marking obligations.

CCC Certification (3C)

China Compulsory Certification is mandatory for products sold in the Chinese market. Covers safety, EMC, and environmental requirements for electrical and electronic products.

Regulation	Key Requirements	Substances of Concern
China RoHS	Marking + Declaration required	Pb, Hg, Cd, Cr6+, PBB, PBDE
CCC	Mandatory certification	Safety + EMC compliance
GB Standards	National standards compliance	Various chemicals
WEEE China	Take-back obligations	Electronic waste management

SOUTH KOREA REGULATIONS (Target Market: South Korea)

Korea RoHS & K-REACH

Korea RoHS restricts hazardous substances in electrical equipment. K-REACH regulates chemical substances. KC certification is mandatory for electrical products. KCC approval required for telecommunications equipment.

This report was generated by Rolling Sphere Technologies Hazardous Substances Compliance Platform.

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For questions about this analysis, please contact your regulatory compliance team.

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