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JDM H31

Chemical Restrictions at the Homogeneous Material Level

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1 Scope

1.1 JDM H31 specifies the drawing notation and material requirements for laws restricting the chemical content of products placed into commerce (such as European Directive 2011/65/EU and its amendments known as “EU RoHS2”).

1.2 The drawing note required by clause 5 of this standard provides product designers an efficient and enterprise-aligned method to source parts in conformance with this standard at the homogeneous material level.

1.3 JDM H31 is expandable to help ensure conformance with additional chemical substance restriction laws and regulations.

1.4 This standard can contain mandatory provisions, which are identified by the words “shall” or “required”. Compliance with the mandatory provisions is required to claim conformance with this standard. This standard can also contain guideline provisions, which are generally identified by the words “should” or “recommended”. Compliance with the guideline provisions is not required, because they might not be appropriate for all machines or all applications.

2 Terms and Definitions

For purposes of this standard, the following terms and definitions apply.

2.1 declaration

Documents indicating that the pertinent part or product meets the required specifications.

2.2 homogeneous material

Uniform composition throughout a material; or a material that consists of a combination of materials which cannot be disjointed or mechanically separated into different materials by mechanical actions, such as unscrewing, cutting, crushing, grinding, or abrasive processes.

Note 1 Limits on restricted chemicals apply to all homogeneous materials within a part or product.

2.3 part

Enterprise and unit parts, components, sub-assemblies, assemblies, or products.

3 Applicability

3.1 Product Leadership Management (PLM) for a new product shall review the appropriateness of compliance to JDM H31 for the product during the EPDP process.

3.2 JDM H31 compliance shall be mandatory for parts, both production and service, on a product program when decided by the PLM team during the EPDP process.



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4 Requirements

4.1 All parts incorporated into products subject to product chemical laws and regulations shall conform to the requirements of JDM H31.

4.2 Conformity with the chemical substance limits shown in Table 1 is required at the homogeneous material level.

4.3 JDM H31 applies to all parts, both production parts and service parts.

Table 1 Chemical Substance Limits

Substance	Concentration Limit by Mass in Any Homogeneous Material
Cadmium	0.01% (100 ppm)
Lead	0.1% (1000 ppm)
Mercury	0.1% (1000 ppm)
Hexavalent Chromium	0.1% (1000 ppm)
Polybrominated biphenyls (PBB)	0.1% (1000 ppm)
Polybrominated diphenyl ethers (PBDE)	0.1% (1000 ppm)
Bis (2-ethylhexyl) phthalate (DEHP)	0.1% (1000 ppm)
Butyl benzyl phthalate (BBP)	0.1% (1000 ppm)
Dibutyl phthalate (DBP)	0.1% (1000 ppm)
Disobutyl phthalate (DIBP)	0.1% (1000 ppm)
• Concentration Limit: Application exemptions are allowed in accordance with EU RoHS2, Article 4(1) Annex III and associated delegated acts. • See clause 6, JDM H31.	

5 Drawing Note

The following drawing note shall be used. It shall be near the drawing title block and not in the general notes.

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6 Required Documentation

When requested, the supplier shall indicate conformance to the designated requirement, including any claimed exemptions as referenced in Table 1, through the John Deere Supply Network Compliance Information Collection (CIC) tool or other means as designated by John Deere.

7 References

For undated references, the latest edition of the referenced document (including any amendments) applies.

7.1 Access to John Deere Standards

7.1.1 John Deere Standards can be accessed by John Deere personnel via the [Engineering Standards](#) internal website.

7.1.2 Employees of suppliers with an approved John Deere supplier number can obtain access to John Deere Standards via the [JD Supply Network \(JDSN\)](#). Access to JDSN is by approved individual name and password. Suppliers should contact their Supply Management representative with questions about JDSN.

Note 2 Only John Deere Standards which have been approved for supplier distribution are available via JDSN.

7.2 Access to Standards from External Organizations

7.2.1 Most standards from organizations external to John Deere are available to John Deere personnel via the [Engineering Standards](#) internal website.

7.2.2 Suppliers are responsible for obtaining relevant external standards. In accordance with copyright laws and Company policy, John Deere personnel shall not provide copies of these standards to suppliers.

7.3 References Cited in This Standard

7.3.1 European Directives (European Union)

EU RoHS2 Directive (EU 2011/65/EU)	Restriction of Hazardous Substances in Electrical and Electronic Equipment
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Editorial Revision:

Revised Bullet 1 footnote in Table 1 for clarity.

Added Bullet 2 footnote to Table 1 for clarity.