



Policy on phthalates in cosmetics

No Boots brand products or exclusives developed by Boots UK will contain simple phthalate esters.

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Policy support document

Phthalates in cosmetics

Background

The family of chemicals commonly known as phthalates has traditionally had limited use in cosmetic and toiletry products. The main uses were within nail polishes or within fragrances as carrier solvents. Not all of the materials within the phthalate family are used in cosmetics; the most common were dibutyl phthalate and diethyl phthalate. These were used in relatively small quantities, although dibutyl phthalate is now prohibited for use under the UK Cosmetic Product (Safety) Regulations¹.

The issue

Non-government organisations allege that phthalates are harmful to both individuals and the environment. This has led to their use being heavily scrutinised in recent years, especially in emotive areas such as toys and child related articles where there is an argument that exposure is greatest due to mouthing.

In Europe, any substance known or suspected to be carcinogenic, mutagenic, or to cause reproductive effects in laboratory animals at any dose cannot be used in cosmetics this includes phthalates such as dibutyl phthalate.

Product development team action

This policy is implemented in GR 010 – General Requirement For Cosmetic And Toiletry Products.

Ensure that all products are formulated without the use of simple phthalate esters.

Implemented: 2001 Completed: 2008

Key questions

- **What product does this affect?**
This policy is applicable to all Boots cosmetic and toiletry products.
- **What is the legal status of these materials?**
The cosmetic regulations ban the use of dibutyl phthalate (DBP) and diethyl hexyl phthalate (DEHP) in cosmetic products. Other phthalates are not currently restricted.
- **What about products already in development?**
No products will be developed using these materials. If products are found to contain these materials reformulation must be initiated to remove these ingredients.
- **Are there suitable alternatives?**
For all applications industry has developed alternative materials that will not add cost to the product.



Key technical information

Dibutyl phthalate

Synonyms: DBP; Dibutyl phthalate; n-Butyl phthalate; 1,2-Benzenedicarboxylic acid dibutyl ester; Phthalic acid dibutyl ester; o-benzenedicarboxylic acid, dibutyl ester; benzene-o-dicarboxylic acid di-n-butyl ester; dibutyl 1,2-benzenedicarboxylate; celluflex dpb; Elaol; hexaplas m/b; palatinol c; polycizer dbp; PX 104; staflex dbp; witecizer 300; Araldite 502; Benzenedicarboxylic acid, dibutyl ester; Dibutyl o-Phthalate

CAS No: 84-74-2

Molecular weight: 278.

Chemical Formula: C₁₆H₂₂O₄

Diethyl phthalate

Synonyms: Ethyl phthalate; Diethyl phthalate, (Phthalic acid diethyl ester); Phthalic Acid Diethyl Ester, 99%; Diethyl phthalate, 99+%; DIETHYLPHTHALATE; Diethyl phthalate for synthesis; Benzene-1,2-dicarboxylic acid diethyl ester~Phthalic acid diethyl ester; DEP

CAS No: 84-66-2

Molecular weight: 222.24

Chemical Formula: C₁₂H₁₄O₄

Di-iso-nonyl phthalate (DINP)

Synonyms: 1,2-Benzenedicarboxylic acid diisononyl ester; bis(7-methyloctyl) phthalate; di-"isononyl" phthalate

CAS No: 28553-12-0/68515-48-0

Molecular weight: 420.6

Chemical Formula: C₂₆H₄₂O₄

Di(2-ethylhexyl) Phthalate (DEHP)

Synonyms: DEHP, BIS (2-ethylhexyl) Phthalate, Di(2-ethylhexyl) Phthalate; DOP

CAS: 117-81-7

Molecular weight: 390.56

Chemical Formula: C₂₄H₃₈O₄

Dibutyl phthalate

Synonyms: 1,2-Benzenedicarboxylic acid dibutyl ester; n-Butyl phthalate; Phthalic acid, dibutyl ester

CAS No.: 84-74-2

Molecular Weight: 278.35

Chemical Formula: C₆H₄(CO₂C₄H₉)₂

Di-iso-decyl phthalate (DIDP)

Synonyms: Bis(8-methylnonyl) phthalate; 1,2-Benzenedicarboxylic acid diisodecyl ester; DIDP; Phthalic acid, diisodecyl ester; 1,2-Benzenedicarboxylic acid, diisodecyl ester; Bis(isodecyl) Phthalate; Bis(isodecyl)phthalate;

CAS No.: 26761-40-0

Molecular Weight: 446.67

Chemical Formula: C₆H₄(COOC₁₀H₂₁)₂

**Di-n-octyl phthalate (DNOP)**

Synonyms: 1,2-Benzenedicarboxylic acid, dioctyl ester; N- Dioctyl phthalate; 1,2 Benzenedicarbonic acid, dioctyl ester; Phthalic acid, dioctyl ester; Diocyl phthalate; DnOP; Di-n octylphthalate.

CAS No.: 117-84-0

Molecular Weight: 390.56

Chemical Formula: C₂₄H₃₈O₄

Butylbenzyl phthalate (BBP)

Synonyms: Butyl benzyl phthalate; Phthalic acid butyl benzyl ester; 1,2-Benzenedicarboxylic acid, Butyl benzyl ester; BBP

CAS No.: 85-68-7

Molecular Weight: 312.4

Chemical Formula: C₁₉H₂₀O₄

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ⁱ The Cosmetic Product (Safety) Regulations 2008