



# SLOVENSKI STANDARD SIST EN ISO 1043-3:2000

01-maj-2000

Nadomešča:  
SIST ISO 1043-3:1996

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## Polimerni materiali - Simboli in kratice - 3. del: Mehčala (ISO 1043-3:1996)

Plastics - Symbols and abbreviated terms - Part 3: Plasticizers (ISO 1043-3:1996)

Kunststoffe - Kennbuchstaben und Kurzzeichen - Teil 3: Weichmacher (ISO 1043-3:1996)

**iTeh STANDARD PREVIEW**

Plastiques - Symboles et abréviations - Partie 3: Plastifiants (ISO 1043-3:1996)

**Ta slovenski standard je istoveten z: EN ISO 1043-3:1999**

SIST EN ISO 1043-3:2000  
http://standards.iteh.ai/standards/EN/ISO/1043-3:1999/4a572bdc21fe/sist-en-iso-1043-3-2000

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### **ICS:**

01.075	Simboli za znake	Character symbols
83.040.30	Pomožni materiali in aditivi za polimerne materiale	Auxiliary materials and additives for plastics

**SIST EN ISO 1043-3:2000**

**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 1043-3**

May 1999

ICS 83.040.30

English version

**Plastics - Symbols and abbreviated terms - Part 3: Plasticizers  
(ISO 1043-3:1996)**

Plastiques - Symboles et abréviations - Partie 3:  
Plastifiants (ISO 1043-3:1996)

Kunststoffe - Kennbuchstaben und Kurzzeichen - Teil 3:  
Weichmacher (ISO 1043-3:1996)

This European Standard was approved by CEN on 18 April 1999.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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## Foreword

The text of the International Standard from Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 1999, and conflicting national standards shall be withdrawn at the latest by November 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 1043-3:1996 has been approved by CEN as a European Standard without any modification.

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INTERNATIONAL  
STANDARD

**ISO**  
**1043-3**

Second edition  
1996-04-15

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**Plastics — Symbols and abbreviated  
terms —**

**Part 3:**

**Plasticizers**  
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*Plastiques — Symboles et abréviations —*

*Partie 3: Plastifiants*  
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Reference number  
ISO 1043-3:1996(E)

**ISO 1043-3:1996(E)****Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 1043-3 was prepared by Technical Committee ISO/TC 61, *Plastics*, subcommittee SC 1, *Terminology*.

This second edition cancels and replaces the first edition (ISO 1043-3:1988) and includes the following changes:

The list of plasticizers has been updated and the Chemical Abstracts Service Registry Number (CAS-RN) has been added where available.

ISO 1043 consists of the following parts, under the general title *Plastics — Symbols and abbreviations*:

- *Part 1: Basic polymers and their special characteristics*
- *Part 2: Fillers and reinforcing materials*
- *Part 3: Plasticizers*
- *Part 4: Flame retardants*

Annex A forms an integral part of this part of ISO 1043.

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# Plastics — Symbols and abbreviated terms —

## Part 3: Plasticizers

### 1 Scope

**1.1** This part of ISO 1043 provides uniform symbols for components of terms relating to plasticizers to form abbreviated terms. It includes, in general, only those abbreviated terms that have come into established use.

**1.2** The purpose of this part of ISO 1043 is to prevent the occurrence of more than one abbreviated term for a given plasticizer. The symbols are primarily intended to be a convenient shorthand for forming abbreviated terms for chemical names in publications and other written matter.

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### 2 Use of the symbols and abbreviated terms

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**2.1** The first appearance of an abbreviated term in a text shall be enclosed in parentheses and shall be preceded by the chemical name written in full.

**2.2** Only capital letters shall be used for the symbols.

**2.3** The list comprises the abbreviated term, the commonly used name or names, and the IUPAC<sup>1)</sup> equivalent and the CAS-RN<sup>2)</sup> where these are available. In cases where IUPAC nomenclature or the CAS-RN are not available due to uncertainty or ambiguity, this is indicated in the text.

The commonly used chemical name or the IUPAC name given in this part of ISO 1043 shall be referred to when defining each abbreviated term.

NOTE — It should be recognized that, in use in the rubber and plastics industries, many plasticizers are “commercial” or “technical” grades and not necessarily pure forms of substances.

**2.4** A list of symbols for individual components of abbreviated terms is given in annex A.

**2.5** Mixtures of plasticizers are not considered in this part of ISO 1043.

**2.6** Unless otherwise indicated, the alkyl groups are *n*-alkyl groups and phthalates are esters of *o*-phthalic acid.

1) International Union of Pure and Applied Chemistry.

2) Chemical Abstracts Service Registry Number.

**2.7** No symbol is used in the abbreviated terms to indicate normal (*n*-) linear alcohols. For branched (iso) alcohols, the additional symbol I is used, with one exception: in view of worldwide usage of the symbol O for 2-ethylhexyl (for example, in DOA and DOP), this practice is observed in this part of ISO 1043 and the *n*-octyl group is designated NO (as in DNOP). Because of this dual usage, the application of the rule specified in 2.1 is most important.

**2.8** The symbol I designates iso-branched groups (for example, DIOP). However, DTDP is sometimes used instead of DITDP because di-*n*-tridecyl phthalate is not used as a plasticizer; when DTDP is used, the application of the rule specified in 2.1 is most important.

**2.9** For plasticizers based on di-esters of the same alcohol, the first symbol of the abbreviated term is D.

**2.10** The letter P may be used in place of F for "phosphate" in abbreviated terms for plasticizers.

**2.11** Several plasticizers having "iso" names indicating branched groups may consist of several isomers. For this reason, no single IUPAC name can describe the detailed chemical composition of each of these plasticizers.

**2.12** Some plasticizers consisting of esters of more than one alcohol are known by a combined number and letter code, e.g. 711A is an alternative common name for heptyl nonyl undecyl adipate (HNUA). The first digit represents the number of carbon atoms in the shortest alkyl group and the second and third digits represent that of the longest alkyl group in the plasticizer; thus 7 denotes heptyl and 11 denotes undecyl. The letter at the end of the code is either A, which denotes adipate, or P, which denotes phthalate.

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### 3 Schedule of terms

Abbreviated term	Common name	IUPAC equivalent	CAS-RN
ASE	alkylsulfonic acid ester	alkanesulfonates or alkyl alkanesulfonates	not known
BAR	butyl <i>o</i> -acetylricinoleate	butyl ( <i>R</i> )-12-acetoxyoleate	140-04-5
BBP	benzyl butyl phthalate	same	85-68-7
BCHP	butyl cyclohexyl phthalate	same	84-64-0
BNP	butyl nonyl phthalate	same	not known
BOA	benzyl octyl adipate	benzyl 2-ethylhexyl adipate	3089-55-2
BOP	butyl octyl phthalate	butyl 2-ethylhexyl phthalate	85-69-8
BST	butyl stearate	same	123-95-5
DBA	dibutyl adipate	same	105-99-7
DBEP	di-(2-butoxyethyl) phthalate	bis(2-butoxyethyl) phthalate	117-83-9
DBF	dibutyl fumarate	same	105-75-9
DBM	dibutyl maleate	same	105-76-0
DBP	dibutyl phthalate	same	84-74-2
DBS	dibutyl sebacate	same	109-43-3
DBZ	dibutyl azelate	same	2917-73-9
DCHP	dicyclohexyl phthalate	same	84-61-7
DCP	dicapryl phthalate	bis(1-methylheptyl) phthalate	131-15-7
DDP	didecyl phthalate	same	84-77-5
DEGDB	diethylene glycol dibenzoate	oxydiethylene dibenzoate	120-55-8
DEP	diethyl phthalate	same	84-66-2
DHP	diheptyl phthalate	same	3648-21-3
DHXP	dihexyl phthalate	same	84-75-3
DIBA	diisobutyl adipate	same	141-04-8
DIBM	diisobutyl maleate	same	14234-82-3
DIBP	diisobutyl phthalate	same	84-69-5
DIDA	diisodecyl adipate	see 2.11	27178-16-1



Abbreviated term	Common name	IUPAC equivalent	CAS-RN
<b>DIDP</b>	diisodecyl phthalate	see 2.11	26761-40-0
<b>DIHP</b>	diisoheptyl phthalate	see 2.11	41451-28-9
<b>DIHXP</b>	diisoheptyl phthalate	same	71850-09-4
<b>DINA</b>	diisononyl adipate	see 2.11	33703-08-1
<b>DINP</b>	diisononyl phthalate	see 2.11	28553-12-0
<b>DIOA</b>	diisooctyl adipate	see 2.11	1330-86-5
<b>DIOM</b>	diisooctyl maleate	see 2.11	1330-76-3
<b>DIOP</b>	diisooctyl phthalate	see 2.11	27554-26-3
<b>DIOS</b>	diisooctyl sebacate	see 2.11	27214-90-0
<b>DIOZ</b>	diisooctyl azelate	see 2.11	26544-17-2
<b>DIPP</b>	diisopentyl phthalate	same	605-50-5
<b>DMEP</b>	di-(2-methoxyethyl) phthalate	bis(2-methoxyethyl) phthalate	117-82-8
<b>DMP</b>	dimethyl phthalate	same	131-11-3
<b>DMS</b>	dimethyl sebacate	same	106-79-6
<b>DNF</b>	dinonyl fumarate	same	2787-63-5
<b>DNM</b>	dinonyl maleate	same	2787-64-6
<b>DNOP</b>	di- <i>n</i> -octyl phthalate	dioctyl phthalate	117-84-0
<b>DNP</b>	dinonyl phthalate	same	14103-61-8
<b>DNS</b>	dinonyl sebacate	same	4121-16-8
<b>DOA</b>	dioctyl <sup>3)</sup> adipate	bis(2-ethylhexyl) <sup>3)</sup> adipate	103-23-1
<b>DOIP</b>	dioctyl isophthalate	bis(2-ethylhexyl) isophthalate	137-89-3
<b>DOP</b>	dioctyl phthalate	bis(2-ethylhexyl) phthalate	117-81-7
<b>DOS</b>	dioctyl sebacate	bis(2-ethylhexyl) sebacate	122-62-3
<b>DOTP</b>	dioctyl terephthalate	bis(2-ethylhexyl) terephthalate	6422-86-2
<b>DOZ</b>	dioctyl azelate	bis(2-ethylhexyl) azelate	2064-80-4
<b>DPCF</b>	diphenyl cresyl phosphate	diphenyl <i>x</i> -tolyl orthophosphate, where <i>x</i> denotes <i>o</i> , <i>m</i> , <i>p</i> or mixture	26444-49-5
<b>DPGDB</b>	di- <i>x</i> -propylene glycol dibenzoate	not possible	not known
<b>DPOF</b>	diphenyl octyl phosphate	2-ethylhexyl diphenyl orthophosphate or octyl diphenyl orthophosphate	1241-94-7
<b>DPP</b>	diphenyl phthalate	same	84-62-8
<b>DTDP</b>	diisotridecyl phthalate (see 2.8)	see 2.11	27253-26-5
<b>DUP</b>	diundecyl phthalate	same	3648-20-2
<b>ELO</b>	epoxidized linseed oil	not possible	8016-11-3
<b>ESO</b>	epoxidized soya bean oil	not possible	8013-07-8
<b>GTA</b>	glycerol triacetate	same	102-76-1
<b>HNUA</b>	heptyl nonyl undecyl adipate (= 711A)	not possible	not known
<b>HNUP</b>	heptyl nonyl undecyl phthalate (= 711P)	not possible	68515-42-4
<b>HXODA</b>	hexyl octyl decyl adipate (= 610A)	not possible	not known
<b>HXODP</b>	hexyl octyl decyl phthalate (= 610P)	not possible	68515-51-5
<b>NUA</b>	nonyl undecyl adipate (= 911A)	not possible	not known
<b>NUP</b>	nonyl undecyl phthalate (= 911P)	not possible	not known
<b>ODA</b>	octyl decyl adipate	decyl octyl adipate	110-29-2
<b>ODP</b>	octyl decyl phthalate	decyl octyl phthalate	68515-52-6
<b>ODTM</b>	<i>n</i> -octyl decyl trimellitate	decyl octyl hydrogen benzene-1,2,4-tricarboxylate	not known
<b>PO</b>	paraffin oil	not possible	8012-95-1
<b>PPA</b>	poly(propylene adipate)	same	not known
<b>PPS</b>	poly(propylene sebacate)	not possible	not known
<b>SOA</b>	sucrose octa-acetate	sucrose octaacetate	126-14-7
<b>TBAC</b>	tributyl <i>o</i> -acetylcitrate	same	77-90-7
<b>TBEP</b>	tri-(2-butoxyethyl) phosphate	tris(2-butoxyethyl) orthophosphate	78-51-3

3) In this context "octyl" and "(2-ethylhexyl)" are synonymous; DEHA and DEHP are frequently used as the abbreviated terms.