

The European Pharmacopoeia and GInAS

Dr Christopher Jarvis, EDQM, Council of Europe

- GInAS Summer Meeting -

CBG-MEB, Utrecht, The Netherlands

12 September 2013

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The EDQM

- The EDQM (European Directorate for the Quality of Medicines & HealthCare) is a directorate of the Council of Europe
- It was founded in 1964 with the signing of the **Convention on the Elaboration of a European Pharmacopoeia**
 - Signatories: 37 Council of Europe member states and the EU
 - Observers: 24 countries (19 non-European) and the WHO

European Pharmacopoeia Member and Observer states (2013)

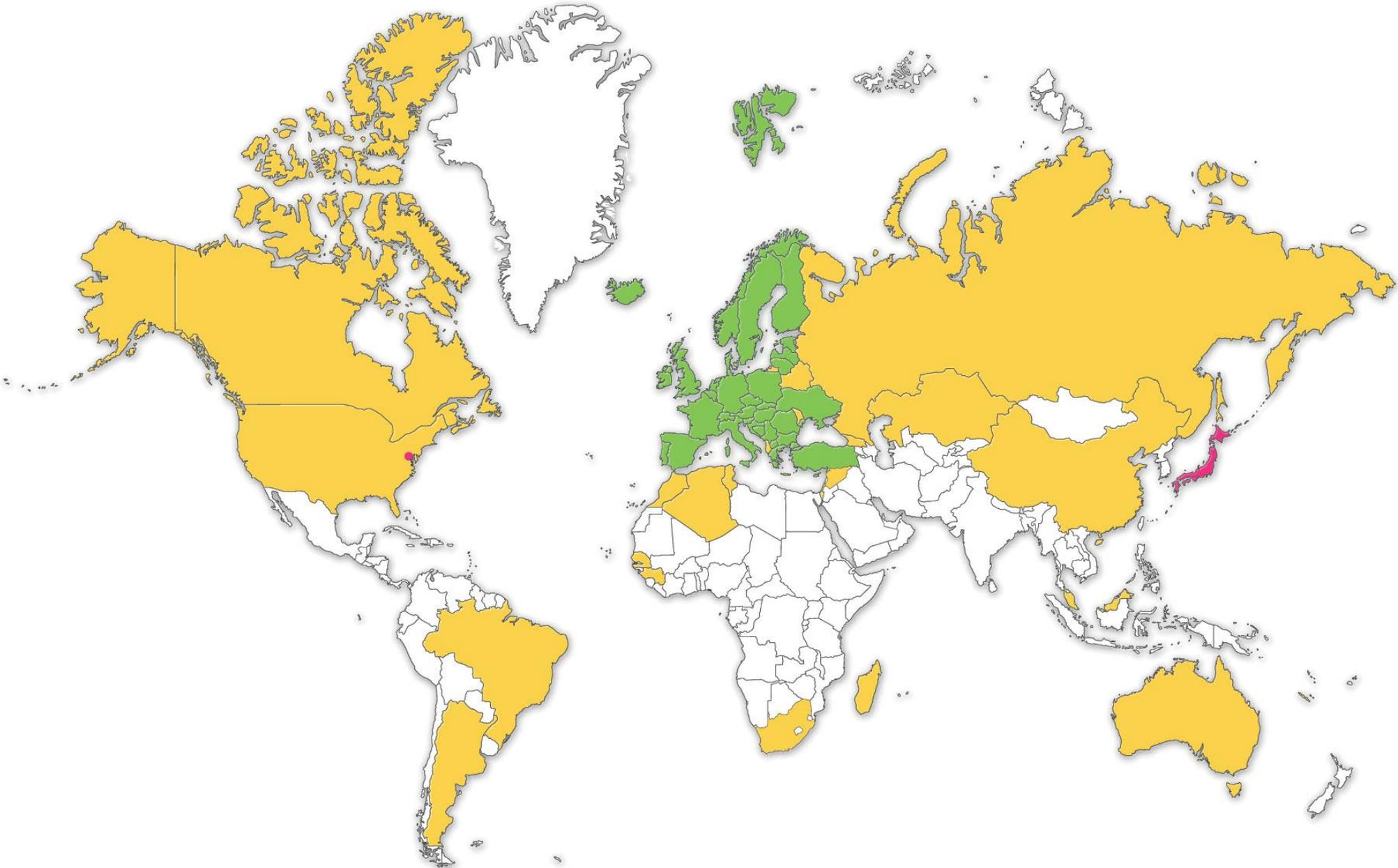
Observer countries
non-members of
the Council of Europe

- Algeria
- Argentina
- Australia
- Belarus
- Brazil
- Canada
- China
- Israel
- Kazakhstan
- Madagascar
- Malaysia
- Morocco
- Republic of Guinea
- Senegal
- Singapore
- South Africa
- Syria
- Tunisia
- United States of America

- Member states
- Observer states



25 Observers from around the world



Some of the EDQM's activities

- [European Pharmacopoeia](#) (Ph. Eur.)
- [Standard Terms](#)
- [Official Medicines Control Laboratories network](#)
- [Blood transfusion](#)
- [Organ transplantation](#)
- [Medicrime Convention](#) and [eTACT](#)
- [Cosmetics and food packaging](#)
- [Pharmaceutical care](#) incl. Quality Indicators Project

EDQM and IDMP

- The EDQM became involved in the IDMP project due to its history of providing standards for medicinal products throughout Europe
 - **European Pharmacopoeia (Ph. Eur.)**
 - Provides quality standards for substances used in medicinal products throughout Europe
 - **Standard Terms**
 - Provides standardised terminology for use in labelling, packaging, and identification of medicines in 32 world languages
 - dosage forms, routes of administration, packaging

EDQM and GInAS

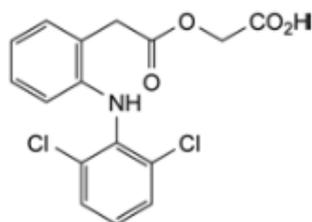
- The GInAS project is recognised as an extremely important tool for harmonising the identification of substances used in medicinal products
- Information contained in the monographs of the European Pharmacopoeia (Ph. Eur.) is mandated by legislation in the regulation of medicinal products in Europe, and therefore has a natural link with GInAS

Ph. Eur. identifying information

- Monograph title (English, French, Latin)

ACECLOFENAC

Aceclofenacum



$C_{16}H_{13}Cl_2NO_4$
[89796-99-6]

M_r 354.2

DEFINITION

[[[2-[(2,6-Dichlorophenyl)amino]phenyl]acetyl]oxy]acetic acid.

Content: 99.0 per cent to 101.0 per cent (dried substance).

CHARACTERS

Appearance: white or almost white, crystalline powder.

Solubility: practically insoluble in water, freely soluble in acetone, soluble in ethanol (96 per cent).

IDENTIFICATION

First identification: B.

Second identification: A, C.

A. Ultraviolet and visible absorption spectrophotometry (2.2.25).

Test solution. Dissolve 50.0 mg in *methanol R* and dilute to 100.0 mL with the same solvent. Dilute 2.0 mL of the solution to 50.0 mL with *methanol R*.

Spectral range: 220-370 nm.

Absorptivity: $\epsilon_{275} = 1.2 \times 10^4$ L mol⁻¹ cm⁻¹.

07/2009:1281
corrected 7.7

Reference solution (e). Mix 1.0 mL of reference solution (b) and 1.0 mL of reference solution (d) and dilute to 100.0 mL with the solvent mixture.

Reference solution (f). Dissolve the contents of a vial of *diclofenac impurity A CRS* (aceclofenac impurity I) in 1.0 mL of the solvent mixture, add 1.5 mL of the solvent mixture and mix.

Reference solution (g). Dissolve 4 mg of *aceclofenac for peak identification CRS* (containing impurities B, C, D, E and G) in 2.0 mL of the solvent mixture.

Column:

- *size*: $l = 0.25$ m, $\varnothing = 4.6$ mm;
- *stationary phase*: spherical end-capped octadecylsilyl silica gel for chromatography R (5 μ m) with a pore size of 10 nm and a carbon loading of 19 per cent;
- *temperature*: 40 °C.

Mobile phase:

- *mobile phase A*: 1.12 g/L solution of *phosphoric acid R* adjusted to pH 7.0 with a 42 g/L solution of *sodium hydroxide R*;
- *mobile phase B*: *water R*, *acetonitrile R* (10:90 V/V);

Time (min)	Mobile phase A (per cent V/V)	Mobile phase B (per cent V/V)
0 - 25	70 → 50	30 → 50
25 - 30	50 → 20	50 → 80
30 - 50	20	80

Flow rate: 1.0 mL/min.

Detection: spectrophotometer at 275 nm.

Injection: 10 μ L of the test solution and reference solutions (c), (e), (f) and (g).

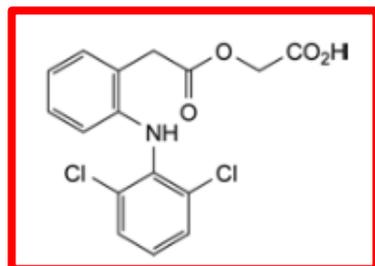
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Ph. Eur. identifying information

- Monograph title (English, French, Latin)
- Graphical formula of parent substance

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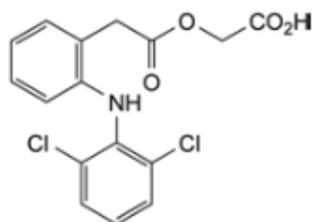
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Ph. Eur. identifying information

- Monograph title (English, French, Latin)
- Graphical formula of parent substance
- **Definition of parent substance**
 - IUPAC nomenclature of chemical substances
 - Molecular formula and relative molecular mass
 - Description of more complex substances

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Ph. Eur. identifying information

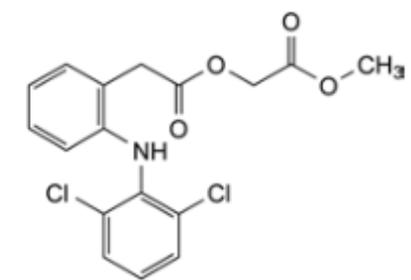
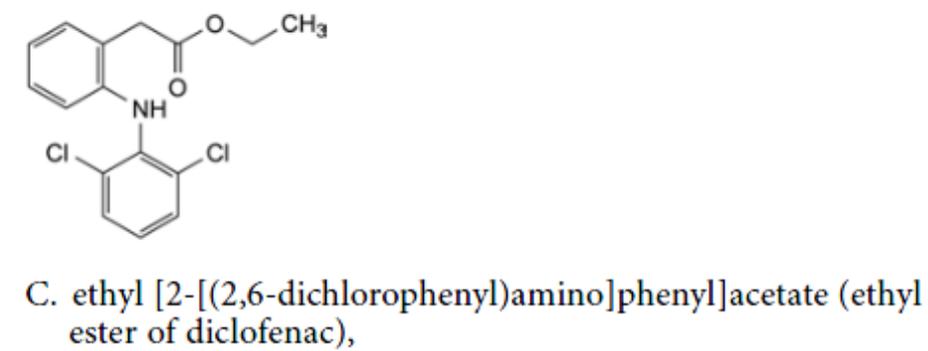
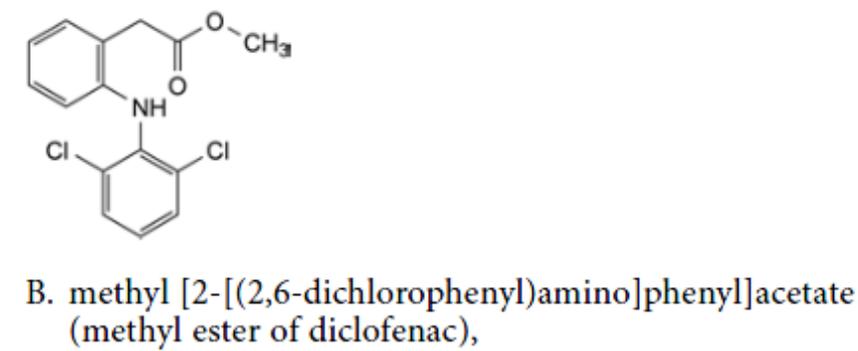
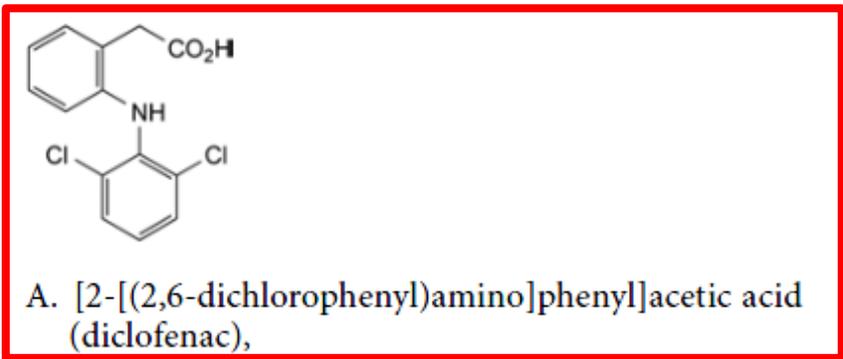
- Monograph title (English, French, Latin)
- Graphical formula of parent substance
- Definition of parent substance
 - IUPAC nomenclature of chemical substances
 - Molecular formula and relative molecular mass
 - Description of more complex substances
- **Graphical formula and nomenclature of impurities**

STORAGE

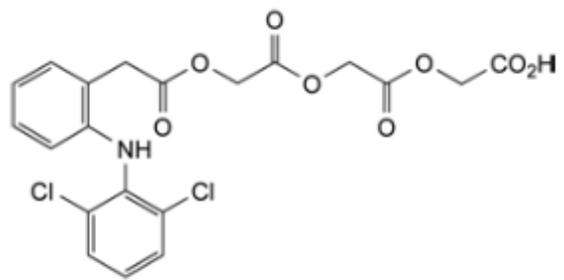
Protected from light.

IMPURITIES

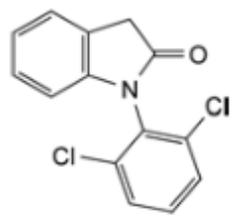
Specified impurities: A, B, C, D, E, F, G, H, I.



G. [2-[(2,6-dichlorophenyl)amino]phenyl]acetic acid (acetic aceclofenac),



H. [2-[(2,6-dichlorophenyl)amino]phenyl]acetic acid (diacetic aceclofenac),

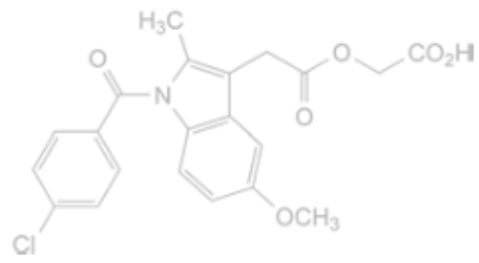


I. 1-(2,6-dichlorophenyl)-1,3-dihydro-2H-indol-2-one.

04/2008:1686 corrected 7.0

ACEMETACIN

Acemetacinum



C₂₁H₁₈ClNO₆
[53164-05-9]

M_r 415.8

DEFINITION

Knowledge database

- Each monograph also has an entry in the freely accessible EDQM Knowledge database
- Further information is available for each substance, for example:
 - official Ph. Eur. reference standards
 - certificate holders
 - monograph revision history

https://extranet.edqm.eu/4DLink1/4DCGI/Web_View/mono/1281

Summary

- The EDQM has actively supported the IDMP project since its early years, in ISO and in ICH, providing the principal editor for the ISO 11239 standard and implementation guide
- The EDQM and the European Pharmacopoeia is looking forward to working with GInAS to find the best way to share relevant substance information in an efficient, maintainable way

For further information:

www.coe.int

www.edqm.eu

<http://pharmeuropa.edqm.eu>

European Directorate for the Quality of Medicines & HealthCare (EDQM)

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