
INTERNATIONAL STANDARD



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Gaseous halogenated hydrocarbons (liquefied gases) — Taking of a sample

Hydrocarbures halogénés gazeux (gaz liquéfiés) — Prélèvement d'un échantillon

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3427 was drawn up by Technical Committee ISO/TC 47, *Chemistry*, and circulated to the Member Bodies in February 1974.

It has been approved by the Member Bodies of the following countries :

Austria	Hungary	Romania
Belgium	India	South Africa, Rep. of
Bulgaria	Ireland	Spain
Chile	Israel	Switzerland
Czechoslovakia	Italy	Thailand
Egypt, Arab Rep. of	Netherlands	Turkey
France	New Zealand	United Kingdom
Germany	Portugal	U.S.S.R.

No Member Body expressed disapproval of the document.

Gaseous halogenated hydrocarbons (liquefied gases) — Taking of a sample

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the apparatus and the procedures to be used when taking a laboratory sample of a gaseous halogenated hydrocarbon (as a liquefied gas) from a container (cylinder, drum, tank, etc.).

2 PRINCIPLE

Taking of a sample of halogenated hydrocarbon in a stainless steel cylinder, previously cleaned, dried and evacuated.

The sample cylinder is filled to the filling ratio allowed by safety considerations: relevant details will be given in the individual International Standards for the products concerned.

This sample shall be taken only from the liquefied phase.

3 APPARATUS

3.1 Sampling assembly (see figure 2).

3.1.1 Sample cylinder, constructed of stainless steel, capable of withstanding an internal pressure of at least 3 MPa* or as prescribed for a particular product**, and of one of the two types shown in figure 1:

- a) sample cylinder fitted with two needle valves, connected respectively to an internal dip-tube extending to near the bottom of the cylinder and to a short internal tube (length 30 mm);
- b) sample cylinder with only one valve and without internal tubes.

The sample cylinder shall be designed so as to be easily cleaned and dried and its valve outlet(s) shall be fitted with

sealing cap(s) for use during transport. Its capacity depends on the quantity of the product required to carry out all of the intended analyses. This quantity shall be small in relation to the total quantity contained in the cylinder in order to avoid any variation in the composition of the liquid phase.

NOTE — The interior of the sample cylinder shall be examined periodically. If the surface is not clean, wash it with water and an appropriate solvent, for example ethanol or acetone.

Check its pressure-tightness periodically, for example by immersing it in water and filling it with nitrogen to a pressure of about 3 MPa*.

3.1.2 Connecting tube, preferably made of stainless steel, of suitable length and having threaded connectors (unions) fitting respectively the valve of the liquefied halogenated hydrocarbon container and the valve of the sample cylinder (3.1.1).

All connectors shall be fitted with washers made of a material which is not attacked by the product to be analysed.

3.2 Electric oven, capable of being controlled at 105 to 110 °C.

3.3 Balance, accurate to ± 1 g.

3.4 Vacuum pump, capable of reducing the pressure in the cylinder (3.1.1) rapidly to about 100 Pa***.

3.5 Desiccator, capable of containing the cylinder (3.1.1), with an efficient desiccant.

3.6 Compressed nitrogen, clean and dry.

3.7 Cooling bath, at a temperature appropriate to the product to be sampled.

* 3 MPa = 30 bar

** If there exists a national or international regulation on this subject, it should be respected.

*** 100 Pa = 1 mbar